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SHINING DISCLOSURES: AN IN-DEPTH LOOK AT LAKME'S MARKETING EXPERTISE

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ABSTRACT

Lakme is indeed one of the leading cosmetic brands with its headquarters in Mumbai, India. Established in 1952, Lakme is part of the larger consumer goods and cosmetics company, Hindustan Unilever Limited (HUL). The brand has played a pivotal role in shaping the beauty and cosmetics industry in India, offering a wide range of products that cater to the diverse beauty needs of the Indian market. Lakme has adeptly integrated elements of traditional Indian culture into its product offerings, tailoring them to suit the varied and culturally diverse market. This approach involves infusing the brand's beauty products with features, colours, and fragrances that resonate with the diverse cultural preferences of Indian consumers. Lakme a distinguished presence in the cosmetics industry has implemented a range of marketing strategies that have been instrumental in establishing and sustaining its success. The secondary data have been gathered from a range of scholarly journals, websites, and books for our research. Our analysis focused on evaluating the Market entry and expansion strategy, Analyse consumer engagement, Understanding brand positioning and identification of top competitors of lakme is the foundation for our research case study.

KEYWORDS: Traditional culture, Pivotal role, Diverse beauty, Expansion strategy.

INTRODUCTION

With its vast potential, the beauty sector is also a vital part of the economies of all countries. Throughout the medieval ages, upper class men and women started using cosmetics more often [1]. In this modern Information Technological era, the media plays a crucial role all over the world by sharing the essential information that influences the attitude and perception of customers [2]. Innovation leads to a process of change in organizations and its market offerings, and is a key weapon that marketing strategists use to win customers and markets, through the development of sustainable competitive advantage [3]. The global beauty market has expanded at an average annual rate of 4.5% over the past 20 years (CAGR), with annual growth rates ranging from roughly 3% to 5.5%. This market, sometimes referred to as cosmetics and toiletries or personal care products, has demonstrated its ability to grow steadily and continuously as well as its tenacity in the face of adverse economic situations [4]. The nation's beauty industry has grown in tandem with the enormous advancements in fashion and style. Being environmentally conscious has become the new mantra for the general public, and fashion designers aren't the only ones pushing this trend massively through their collections; restorative brands are also becoming more eco-friendly[5]. Given their association with a more carefree, adaptable, and comfortable lifestyle, cosmetics have grown in popularity among consumers in the current market. Manufacturers like Maybelline, L'Oreal, Lakme, and others have increased their business in the country as a result of this. Brand loyalty is the word used in marketing to describe a customer's pledge to repeatedly purchase a product or service from a brand. This suggests that consumers' decisions to repurchase are heavily influenced by their perception of the

brand's credibility and the calibre of the good or service they receive [6].

Cosmetics, according to Eze, Tan, and Yeo (2012), became a broad and well-liked category among young adults and adults because it associated them with a more laid-back, versatile, and comfortable lifestyle. Hassali (2015) emphasised that the Asian cosmetics sector is becoming one of the market that is expanding at the quickest rate is now worth over US\$70 billion, making it the second largest behind the market in Western Europe [7]. Leading Indian cosmetic firms include Himalaya Herbals, Lakme, Revlon, Oriflame Cosmetics, Biotique, and VLCC, among others. Almost every society has employed cosmetics in some capacity over its at least 6,000-year history. Many people employ scarification and tattoos as cosmetics to psychologically intimidate their opponents (Draelos, 2007). Cosmetics are defined by the FDA as items "intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance without affecting the body's structure or functions." Soap is expressly excluded from this category by the FDA. Originally known as the French Hair Colouring Company, Eugene Schueller started L'Oreal in 1909; it is currently the oldest and largest cosmetic company. These businesses joined [8]. The most notable observation is that the skin care cosmetics market has grown more slowly than other markets, and items like cleansers, toners, and anti-wrinkle creams are not as well-liked as face creams, moisturisers, and fairness creams. Businesses such as Pond's and Fair & Lovely are at the top of the list. The number of salons is growing at a rate of thirty-five percent, and the annual per capita expenditure in the hair and beauty business is currently \$1.2, with growth predicted to reach \$6.2 by 2015.



The forecast growth for the spa and body treatment industry is almost \$772 million over the next five to eight years [9]. The primary goals of this paper have been examined, including a description of Lakme marketing techniques, a swot analysis of the company's products, and an identification of competitors.

RELATED RESEARCH WORK

Research work related to Lakme ‘s strategies involves a comprehensive analysis of the brand’s approach to the market and consumer engagement. Investigating Lakme’s strategies encompasses studying its marketing initiatives, product development, and brand positioning to gain insights into its sustained success.

S. No.	Area of study	Focus	Reference
1.	Marketing Strategies	Investigate ethnic and national cultures influence the implementation of marketing strategies	Koubaa et al. (2011).
2.	Consumer Behavior Towards Cosmetics	One of the biggest consumer industries in the nation is the personal care industry.	Prof. Anute Nilesh, <i>Online published on 22 June, 2018.</i>
3.	Advertisement	To market their products, advertisers frequently employ iconic, indexical, and symbolic communication channels.	Gopal Krushna Sahu & Beebee Hassanaath Heathy Published: Apr 08, 2019
4.	CSR Initiatives	Social responsibility is the duty of every individual company towards society and the environment	Nora Amberg et .al 2019 ,8(3)
5.	Celebrity Endorsement	compelling declaration and convincing conversation	Jhawar,Renuka 2021
6.	Quality Assurance	Beauty and skin care products	Heyam Ali,2015

OBJECTIVE OF STUDY

- To Evaluate market entry and expansion strategies
- To Analyse consumer engagement
- To Understanding brand positioning
- To identify the competitors of lakme at present beauty market.
- To analyze the concept of growth in the current context.

METHODOLOGY

The data for this study was gathered from published sources and is based on secondary data. This piece an organised and thorough approach is used in the research technique to examine Lakme’s success in the skincare and cosmetics business, as well as the brand’s evolution, market positioning, and consumer effect. With an emphasis on the official Lakme Company website, this article offers a thorough analysis of the company's marketing methods. It draws information from a range of sources, including journal articles, newspapers, and business websites.

The objective of studying Lame’s marketing strategies involves gaining a deeper understanding of how the brand has navigated the beauty industry and achieved its prominence.

Key objectives of such a study may include:

1. Evaluate market entry and expansion strategies

Lakme, a major player in the cosmetics and beauty sector, has expanded and established its position through a variety of market entry and expansion techniques. Lakme’s has consistently broadened their selection of products to include a wide range of skincare, cosmetics, and beauty items. By using this calculated strategy, the brand successfully expands its appeal, reaches a larger audience, and targets a number of different beauty market groups. Lakme’s intentionally

leverages the popularity of these celebrities to attract customers while also enhancing its credibility by forming relationships with significant figures in the industry[10].

***.Domestic Expansion**

The goal of Lakme’s domestic expansion is to increase its market share in the country through strategic initiative. This development plan includes a number of strategies meant to boost brand awareness, expand market share, and serve a range of customer demographics. The goal of Lakme’ s domestic expansion is to increase its market share in the country through strategic initiative[12].This development plan includes a number of strategies meant to boost brand awareness, expand market share, and serve a range of customer demographics[11]. Important components: Increased retail network, localised marketing efforts, and geographic reach

***.International Expansion**

This domestic company has become incredibly well-known by continuously providing high-quality cosmetics and building trusting relationships with customers. A number of things contribute to its success.

***Heritage and Home-Grown Identity**

The brand's understanding of local preferences and traditions contributes to its widespread acceptance.

***Celebrity Collaborations**

Lakme has successfully capitalised on the prominence of well-known Indian celebrities and influencers, using their star power to increase brand awareness.

***Product Localisation**

Lakme’s uses a product localization strategy in the market, tailoring their products to the unique requirements and tastes of



the local customer base. With the use of this tactical approach, Lakme's can make sure that its products complement the distinctive features and prevailing trends of each particular market. By doing this, the brand hopes to increase consumer acceptance and relevance. It understands the significance of meeting the varied and changing needs of various geographic areas.

2. Analyse Consumer Engagement

Consumer engagement for Lakme's involves the brand's efforts to actively connect with and involve its audience, fostering a meaningful relationship. Lakme's consumer engagement includes.

1. Digital Platforms

Social media presence maintains an active presence on popular social media platforms like face book, Instagram, twitter, and YouTube. these platforms offer content related to beauty tips, makeup tutorials, product launches, and collaborations. Lakme utilizes digital platforms, such as social media and its official website, as a means to connect with consumers. By consistently sharing updates, compelling content and running interactive campaigns, the brand actively nurtures its online presence, fostering an environment that invites consumer participation and feedback.

2. Customer Feedback Mechanism

Lakme's system for gathering customer feedback involves creating avenues for customers to share their opinions and experiences. This structured approach allows the brand to collect valuable insights, understand consumer perspectives, and continually refine its products and services based on the evolving needs and expectations of its audience.

3. Understanding Brand Positioning:

Lakme has a brand personality of someone who takes care of you and your beauty needs. it tries to position itself amongst its consumers as a product range that will help them look beautiful. Lakme's brand positioning in the beauty market encapsulates how the brand is perceived in comparison to its competitors and the distinctive space it holds in the minds of consumers. Lakme clearly defines its target audience understanding demographics psychographics, and beauty preferences of consumers it aims to serve. This clear understanding enables the customization of products to align with the specific requirements and aspirations of the targeted market segment. Lakme's articulates a distinctive value proposition that distinguishes it from competitors. This may encompass aspects such as product quality, innovation, affordability, or a blend of factors that resonate effectively with the preferences and needs of the target audience. The diverse and unique range of Lakme's products plays a pivotal role in shaping the brand's positioning in the beauty market. Through innovative formulations, trendsetting products, and an extensive line of cosmetics and skincare items, Lakme's positions itself as a premier choice for a wide array of beauty needs.

4. To Identity the Competitors of Lakme at Present Beauty Market

Lakme declares its supremacy in the beauty and cosmetics sector, surpassing rivals like Revlon, MAC Cosmetics, and Hindustan Unilever in a number of important areas.

Employee Engagement

The business also does exceptionally well in terms of employee happiness, ranking first in ENPS (Employee Net Promoter Score). This alludes to a gratifying workplace and devoted workers.

Lakme's Performance Overview.

- 3rd position in Gender and Diversity ranks, emphasizing inclusive workplace.
- 1st rank in product quality, showcasing dedication to high-quality beauty and cosmetic offerings.
- 1st position in customer service, indicating focus on meeting customer needs and providing excellent support.
- Outperforms competitors in Overall Culture Score.
- 2nd rank in Net Promoter Score (NPS), indicating strong customer loyalty and satisfaction.

5. To Analyze the Concept of Growth in the Current Context

The cosmetics industry has grown significantly in the last several years due to a number of variables that include shifting consumer behaviour, societal trends, technological developments, and favourable economic situations. The following are some significant variables driving the expansion of the cosmetics industry [13].

Standards and trends:

- Celebrities showcase cosmetic products, driving demand for innovative products.
- Technological advancements in cosmetics lead to high-quality, innovative products.
- Use of technology in marketing enhances consumer shopping experience.
- Demand for cosmetics catering to diverse skin tones, hair types, and cultural preferences.
- Brands emphasizing inclusivity and diversity are gaining popularity.

Cosmetic Industry Trends and Impact.

- Innovation and Product Differentiation: Constant product innovation, packaging, and marketing strategies differentiate cosmetic brands. New product launches and unique formulations attract consumer attention.
- Globalization: Globalization of beauty standards and product availability contribute to industry growth.
- Health and Wellness Trends: Consumers increasingly seek cosmetics with health benefits.
- Pandemic Impact: COVID-19 pandemic has increased focus on skincare and self-care.

It is crucial to examine market trends, consumer behavior, legislative changes, and developing technology in order to understand how the cosmetics industry is expanding in the current environment. Gaining an extensive awareness of the present landscape can be achieved by conducting market



research, following industry publications, and keeping up with the latest advancement.

Cosmetic Industry Impact:

- E-commerce growth transforms industry.
- Global reach facilitates market expansion.
- Brands differentiate through unique formulations and marketing strategies.
- New product launches attract consumer attention.
- Demand for diverse products increases.
- Brands emphasizing inclusivity gain popularity.

FINDINGS

"Women's Cosmetics Usage and Cultural Norms"

- Women's cosmetic use influenced by beauty standards.
- Beauty standards significantly influence cosmetic choices.
- Lakme's marketing strategies for top position in beauty market.
- Creates campaigns that resonate with target audience.
- Utilizes celebrity endorsements and collaborations for visibility and appeal.
- Understands local beauty preferences and cultural nuances.
- Enhances brand reach and availability through various distribution channels.
- Actively engages with customers through social media, events, and other marketing channels.
- Success attributed to product quality, innovation, affordability, effective branding, and understanding of diverse audience preferences.

Lakme Product Distribution Overview

- Wide availability through standalone stores, department stores, online platforms.
- Enhances brand reach and availability.

Lakme's New Cosmetic Line Features

- Nanosphere Encapsulation: Enhances product efficacy and ensures long-lasting benefits.
- Microfluidic Blending: Provides seamless application of pigments and skincare ingredients.
- 3D Printed Customization: Tailors lipstick shades, foundation tones, and eye shadow palettes to reflect unique style and preferences.
- Polymer Matrix Shield: Creates a flexible barrier on skin, preventing smudging and enhancing cosmetic longevity.

Lakme's Sustainable Beauty Products

- Committed to eco-friendly packaging materials.
- Encases cosmetics in biodegradable and recyclable packaging.
- Hydrogel Infusion for Continuous Hydration.
- Provides a dewy, refreshed appearance.
- Color Smart Technology for Adaptive Radiance.
- Encrypted QR Code Authentication for Genuine Products

SUGGESTIONS

1. The distribution channel needs to be effective in order to improve the cosmetics demand pattern. Vendors of Lakme products should ensure that their salespeople have received the necessary training, if any, to effectively market cosmetics. Consumer complaints regarding the cold-hearted therapy of salespeople need to be handled right away.
2. Lakme needs to launch herbal goods and concentrate on its price policies.
3. In order for the male beauty segment to be a key area, the masculine business is also getting more conscious these days.
4. Lakme needs to concentrate more on its social media advertising.
5. The prevailing consensus is that salons owned by companies are pricey. Despite the affordable prices of Lakme beauty salons, there hasn't been enough communication about this.
6. Fashion Collaborations and Limited Editions
 - Explore collaborations with designers or celebrities.
 - Introduce limited-edition collections for exclusivity.
 - Leverage partnerships for new markets and customer segments.
7. Lakme's Marketing Strategy
 - Conduct educational workshops and product demonstrations in local areas.
 - Create localized product offerings inspired by local themes or seasonal trends.
 - Establish feedback mechanisms to understand local market needs and preferences.
8. Geo-Targeted Advertising Overview
 - Utilizes online tools for targeted local audience.
 - Ensures marketing efforts focus on likely brand engagement.
9. Lakme's Next-Gen Cosmetics
 - Merges tradition with innovation.
 - Infuses cutting-edge technology.
 - Promises long-lasting results and unmatched quality.
 - Aims to redefine beauty.

Using a mix of these tactics will result in a more customized and successful plan to increase Lakme product sales in your community.

CONCLUSION

In conclusion, the study clearly shows that women's use of cosmetics is strongly correlated with higher levels of confidence and self-esteem. This relationship emphasises how important makeup is, as it can be a powerful means of expressing oneself and a flexible instrument for experimenting with various appearances. These findings highlight the complex role beauty goods play in bolstering self-confidence and forming self-image, and they further our understanding of the beneficial psychological influence that cosmetics have on women's self-perceptions.

It is imperative to acknowledge that the triumph of any brand is subject to fluctuations in the market, customer inclinations, and industry patterns. So, continuing innovation and adaptation are essential to sustaining Lakme's success in the cosmetics



industry. It's advised to consult the most recent sources of information or business updates for the most precise and up-to-date details about Lakme's performance and strategy.

Within the ever-changing cosmetics business, it is not uncommon for firms to plan focused marketing campaigns in conjunction with fashion shows, holidays, or festivals. Lakme uses these seasonal times to its advantage by deliberately adjusting its marketing strategies to capitalize on the increased consumer excitement and interest. With the help of this flexible approach, Lakme is able to stay aware of the changing market trends and communicate with customers in a relevant and timely way. Compare the CEO Rating, Overall Culture Score, Brand Ranking, and other ratings between Lakme and MAC Cosmetics. 387 workers and consumers of MAC Cosmetics and 55 employees and customers of Lakme contributed to the results. Based on ratings from Lakme customers, the brand is ranked #795 in the Global Top 1000 Brands ranking. J.R.D. Tata, who was adamant about supporting Indian companies, was the driving force behind Lakme's development. Unlike its foreign competitors, who mostly catered to Western standards, the brand understood the specific beauty needs of the Indian market. The CEO of Lakme Lever, a Unilever division that provides beauty services and runs more than 235 salons across more than 65 Indian cities, is Pushkaraj Shenai. He has worked in consumer products, retail, and real estate for more than 20 years in the areas of strategy, operations, marketing, and sales.

Industry experts claim that a wide variety of items are flooding the market, giving established businesses that prioritize quality and customer service the upper hand in the long term.

Television and print media, including newspapers and periodicals, particularly women's publications, frequently feature advertisements. Toiletry product samples are given to specific households, and sachets of the items are fastened to magazines.

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PROMOTING YOUTH EMPLOYABILITY: AN IN-DEPTH ANALYSIS ON THE INFLUENCE OF STRATEGIES TO IMPROVE SKILLS

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ABSTRACT

Purpose: The study's goal is to explore and comprehend the efficacy of various initiatives targeted at improving young people's employability abilities. The research attempts to uncover essential elements and ways that significantly contribute to the enhancement of youth employability via in-depth investigation. This study aims to give significant insights and recommendations to educators, policymakers, and other stakeholders interested in supporting adolescent skill development and, eventually, their effective integration into the workforce.

Design: The study is taken from secondary data, like google scholar, Internet, literature review, books and blogs.

Findings: The study emphasises the key role of targeting interventions to shape a competitive workforce, revealing that implementing skills enhancement strategies positively influences young people's employability.

Originality Value: The study shows innovation strategies and their unique impacts on skill development, which contribute a special perspective into the debate concerning workforce readiness by bringing new approaches to improving employability of young people.

Paper Type: Review paper

KEYWORDS: Employability, Educators, Young People, Skill, Development, Adolescent, Skill Development, Workforce.

1. INTRODUCTION

The need to encourage youth employability has never been greater in the rapidly changing global economy of today. As social orders explore through innovative headways, segment shifts, and monetary changes, the interest for an exceptionally gifted and versatile labour force turns out to be progressively fundamental [1]. The significance of furnishing youthful people with the right arrangement of abilities couldn't possibly be more significant, as it improves their self-improvement as well as contributes fundamentally to the financial development of countries. This investigation aims to shed light on the various strategies and interventions used to improve youth employability by examining their impact and effectiveness in preparing the next generation for professional opportunities and challenges. Through a top-to-bottom investigation, this exploration plans to disentangle the complicated transaction between expertise upgrade procedures and youth employability, offering bits of knowledge that can illuminate strategy choices, instructive educational programs, and labour force advancement drives [2].

2. RESEARCH OBJECTIVES

1. To review the employment eco-system of India.
2. To analyse the global employability regime in the developed countries.
3. To find out the impact of skill enhancement strategies.

4. To examine the outcome of skill enhancement strategies based on SWOC analysis.

2. 1 Employability Eco System in India

In India, the employability ecosystem is a complex structure that includes a number of interconnected components that help people improve their skills and successfully enter the workforce. At its center, the environment is driven by instructive organizations, professional preparation projects, and ability advancement drives. These substances assume a vital part in furnishing the young with the fundamental abilities and information requested by the developing position market. Instructive organizations, including schools, universities, and colleges, structure the primary mainstay of the employability environment. They give scholastic instruction as well as act as stages for encouraging decisive reasoning, critical abilities to think, and relational abilities. [3]. Ability advancement drives comprise one more vital part of the employability environment. They center around levelling up a different scope of abilities, like specialized mastery, delicate abilities, and industry-explicit information. By adjusting these drives to the ongoing requests of the gig market, the employability environment tries to make the adolescent scholastically qualified as well as expertly proficient [4].



The employability biological system in India is a powerful organization containing instructive establishments, professional preparation programs, expertise improvement drives, industry coordinated efforts, and government strategies. Its viability is dependent upon the consistent joining and cooperative energy among these components, at last adding to the all-encompassing turn of events and employability of the youth in the country [5].

2.2 Worldwide Skill Ecosystem

To break down the worldwide employability system in created nations, it is fundamental to examine the diverse techniques and structures that add to forming the business scene. Created countries ordinarily display thorough methodologies pointed toward cultivating an exceptionally talented and versatile labour force. One key angle is the accentuation on instruction and preparing frameworks that line up with the requests of developing businesses. In order to provide their youth with the most recent skills and knowledge, these nations frequently make significant investments in educational infrastructure, curriculum development, and vocational training programs [6].

In added, developed nations recognize that innovation and the adoption of technology are essential growth drivers. This approach reaches out to the coordination of computerized proficiency and arising advances inside instructive educational programs, guaranteeing that the labour force stays deft even with mechanical headways [7]. Joint efforts between instructive foundations, industry partners, and government bodies assume an essential part in fitting instructive projects to the particular requirements of the gig market [8].

2.3 Impact of Skill Enhancement Strategies

Internships, apprenticeships, and opportunities for on-the-job training are frequently supported by developed nations' policies and programs. These active encounters upgrade viable abilities as well as give significant experiences into industry elements [9]. Besides, the presence of strong social well-being nets and emotionally supportive networks adds to a stronger and more versatile labour force, empowering people to face challenges in chasing after new expertise improvement potential open doors without the feeling of dread toward prompt financial outcomes [10]. In developed nations, proactive labour market policies further define the global employability regime. These approaches might incorporate measures to diminish hindrances to section for new participants, advance variety and consideration, and address issues connected with joblessness and underemployment [11]. The examination of the worldwide employability system in created nations uncovers a comprehensive methodology that envelops schooling, innovation reception, cooperation between partners, down-to-earth preparation, and steady strategies [12]. Employability abilities envelop a wide cluster of capabilities, including but not restricted to correspondence, decisive reasoning, collaboration, flexibility, and specialized capability [13]. Carrying out designated techniques for ability upgrade includes drives, for example, professional preparation, instructive changes, mentorship projects, and industry joint efforts. People improve their skills through organized programs and experiential learning, they become more serious applicants in the gig

market. Besides, expertise upgrade methodologies add to a more versatile and stronger labour force, better prepared to explore the unique requests of the contemporary expert scene [14]. Generally local area improvement. Policymakers, educators, and employers can collaborate to design and implement effective interventions to bridge gaps and foster a more robust and sustainable job market for youth by understanding how skill enhancement strategies influence employability [15].

2.4 SWOC Analysis of Skill Enhancement Strategies

A strategic approach such as the SWOC analysis of Strengths, Weaknesses, Opportunities and Challenges proves to be essential in order to systematically evaluate the results of skill enhancement strategies. This method will enable an exhaustive investigation of factors which have a direct influence on the effectiveness of these strategies.

2.4.1 Strengths

A comprehensive assessment of positive aspects linked to skill enhancement strategies will be carried out. The current strengths of this programme in terms of effective training methodologies, proven case studies as well as positive feedback from participants will be identified and exploited.

2.4.2 Weaknesses

To identify areas in which improvement should be made, weaknesses will be examined. This could include identification of the challenges facing implementation and identifying gaps in resources, or recognising specific aspects of a strategy which are not likely to deliver optimal results.

2.4.3 Opportunities

Opportunities External factors which may have a positive impact on skill enhancement strategies will be addressed in the analysis. Emerging trends in labour markets, cooperation with industry partners or innovative technological developments that may be included in training programmes can also contribute to this.

2.4.4 Challenges

To understand the likely obstacles to the success of skill promotion initiatives, challenges and threats will be investigated. These might be the result of market fluctuations, changes in business demands or social factors that are likely to compromise young people's employability.

3. RESEARCH METHODOLOGY

It is an exploratory study with the help of secondary data where the researchers have conducted a content analysis of various magazines, articles, Google Scholar, data-based and related websites

4. RELATED RESEARCH WORK

The writing survey in the concentrate on cultivating employability abilities among youth envelops a careful investigation of existing exploration and academic works connected with expertise upgrade methodologies. The survey considers different expertise improvement draws near, like proper schooling, professional preparation, and experiential



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Houston, D. (2013), Employers offer professional development and experience to increase the employability of their employees instead of offering a "job for life" [31].

Singer, E. R., Berzin, S. C., & Hokanson, K. (2013), Poor outcomes in the early adulthood may be caused by an exaggerated perception of supportive and lasting relationships. Consideration shall be given to implications for policy and practice [32].



Qenani, E., MacDougall, N., & Sexton, C. (2014), It is of particular importance that graduates can be employed at the end of their studies given the considerable investment made by individuals and governments into Higher Education. The focus of the study is on students' awareness, based on a measure of their expectations that they will find employment [33].

Moolman, H. J., & Wilkinson, A. (2014), Even though conclusions do not normally provide new information which does not appear in this article, they are often used to address issues or give a fresh perspective on them [34].

Dejaeghere, J., Wiger, N. P., & Willemsen, L. W. (2016), We have found that forms of social relations, which play a critical role in their educational attainment and future employment possibilities, belong to the category of affiliation, care or imagined alternative futures [35].

Kucel, A., Robert, P., Buil, M., & Masferrer, N. (2016), This paper multilevel regression, the results indicate that university entrepreneurship education needs to be introduced on one hand, and innovative policies for promoting microeconomics and macro levels of national economies are required on the other [36].

Archibald, M. M. (2016), This is an article with a strong beginning for possible future research questions which are believed to be of importance given today's labour market situation. Individual and career organizational interventions to increase life years of employability are also affected by the employability link model [37].

Aggarwal, S. (2016), 'Skills and knowledge are the engines for economic growth and social development in all countries.' As India moves gradually to become a 'knowledge' It's becoming more and more important in the economy. The country should concentrate on developing its skills, In the future, these skills need to be relevant, to the economic environment [38].

Mece, M. (2016), This study, which brings together stakeholders in the agricultural sector through group discussions, aims to better understand youth employment challenges faced by rural areas. entrepreneurs in the countryside, associations and so on. This will also bring about the preparation of political recommendations to support new sources of employment in rural areas, along with conditions for success as regards job creation [39].

Al-Azri, A. K. H. (2016), The study is aimed at helping address policy gaps relating to the relationship between policymakers, business leaders and higher education institutions that lead to the implementation of appropriate approaches for training young people in work-related skills and knowledge [40].

Jayaram, S., & Musau, R. (2017), the researcher find that Soft Skills, particularly for the Post-2015 Education Debate, is on the rise and has become more focused on areas such as what these skills are all about, and how they can be measured and promoted. An overview of these issues is presented in this chapter, with two case studies highlighting the various mechanisms for supporting such skills among young people [41].

Sadik, A. (2017), The research shows that lecturers, students and employers are severely lacking in understanding of the concept of employability which is missing from hospitality training due to curriculum innovation, a lack of an enabling environment for teaching staff skills based on industry

experience, and without equipping pupils with employment able knowledge [42].

Kgosiemang, M. (2018), A healthy integration of the Higher Education system with development economies, market demands and longer-term planning is possible by improving industrial architecture, optimising college education configuration and promoting a culture of innovation [43].

Vaniev, A. (2018), The results demonstrate that, in principle, developing soft skills is justified. by employability-driven reasons than by humanistic development. Second, a similar set of skills for the next generation of engineers are being valued by both students and lecturers: teamwork, communication, problem solving, analysis, precision or design thinking. In particular, current teaching methods mainly focus on these skills using Team Based Work Projects; however, the quality of these products might need to be enhanced [44].

Ahmad, N. A. (2018), It also showed that students from rural areas are more competent in skills of hospitality and employability compared to urban students at vocational colleges. The result found that the competence gained by bakery students in terms of employability skills is lower than the importance perceived by those students [45].

Kintu, D., Kitainge, K., & Ferej, A. (2019), The major role of Technical, Vocational Education and Training (TVET) is to equip young persons with skills for the world of work. In the study, we set out to identify different strategies for facilitating TVET graduates' transition to the world of work in Uganda [46].

Musisi, B., & Bukirwa Sessanga, J. (2019), The researcher conclude that to meet today's labour market demands, Uganda's schools need to shift the assessment strategies towards measuring Employability Skills, now prized in a complex global environment [47].

Dragoi, A. (2019), The purpose of this study is to find out the effects of entrepreneurship education and how entrepreneurial thinking promotes the development of professional skills. Students must learn to communicate their ideas effectively, adapt, solve problems and think critically [48].

Yong, H. N. A. (2019), The paper is designed to analyse youth employment in the context of an ageing population. Employment prospects Participation in the labour market, as a general rule, is correlated with educational attainment. A debate on the policy recommendations is concluded by this paper. There's a need for three main categories Policy prescriptions are explored in terms of employment, education and skills training [49].

Wong, V., & Au-Yeung, T. C. (2019), Assess the case of Hong Kong, showing that although its youth unemployment rate is low, it may be able to hide a negative employment situation for young people. Promoting the ability of young people to adapt and cope with volatilities, as well as changing labour market needs, is characteristic of the coined flex employability phase [50].

Abelha, M., Fernandes, S., Mesquita, D., Seabra, F., & Ferreira-Oliveira, A. T. (2020), Higher education institutions are concerned with using strategies to enhance the development of competencies for graduate employability. A strong knowledge of innovation and collaboration practices on the part of higher education systems around the world is crucial for graduate employability and competence development [51].



Farhadi Rad, H., Parsa, A., & Rajabi, E. (2020), The analyses showed employability is an issue of context and external factors also play a part in this, alongside the university's mechanisms. Based on these data, an illustrative model is presented and analysed to explain how engineering graduates can find employment [52].

Mgaiwa, S. J. (2021), The employment, including skill mismatches and poor soft skills, have become increasingly apparent in the literature on the employability of graduates [53].

Damoah, O. B. O., Peparah, A. A., & Brefo, K. O. (2021), The employability of graduates has been at the forefront of researchers, policymakers and employers in both developed and developing economies following recent labour market changes as well as education sector developments. Based on the findings, implications for theory, policy, and practice are discussed [54].

Shimekit, T. (2021), The study showed that there is insufficient coordination and integration of education systems with the labour market as well as inadequate action, although several policies and strategies to tackle employability are in place both at the school level and on the job market. The study concluded that policies, strategies and actions already in place do not provide sufficient results for improving graduates' employability. Therefore, the development and implementation of effective policies and strategies that can increase graduates' employability should be facilitated by policymakers at colleges and in the labour market [55].

Sutil-Martín, D. L., & Otamendi, F. J. (2021), The pilot project aimed at young university and professional students lasted 9 weeks and proved to be effective, as the general indicators describing the development of the proposed soft skills increased in value and the results varied according to soft skills, gender and training centre. To continue developing and improving this programme, it is necessary to change the content and duration of certain exercises [56].

Sree, G. S., & Ramlal, P. (2021), A novel model of decision-making in vocational education and training, which offers empirical support for the relationship between demographic variables, social status and motivation orientations, is a key finding of this study. This provides implications for the literature based on skills development and vocational education. Future research can consider parents' autonomy-supportive behaviour as a mediator for socio-demographics and study choice motivation for a more comprehensive understanding [57].

Tiwari, P., & Srivastava, A (2022), this research aims to raise the employability opportunities for young college and university students in India by providing them with more flexible skills development. In order to reduce the skills gap, this study is unique and relevant in its focus on quality of higher education, skill development and employability of graduates [58].

Handouyahia, A., Aouli, E., Rikhi, L., & Heydarirad, 2022, the limited impact on earnings appears to be in line with the literature and past evaluation findings. Youth are placed at a distinct disadvantage by being unemployed or unskilled in countries such as Canada, which is an income-rich country where the demand for skilled workers is high. Despite the prevalence of negative results, it is clear to me that this

programme cannot fully compensate for the lack of skills or address educational gaps among these young people [59].

Islam, M. M. (2023), It aims to increase labour market opportunities and train the workers to take advantage of them. Finally, poverty reduction and inequality in Bangladesh are expected as a result of the project [60].

Xiang, B., Wang, H., & Wang, H. (2023), For graduates to secure employment, there is a growing need to develop employability skills. Demands for qualified workers with relevant professional skills and work experience can also be seen on the labour market. The study recommends that colleges, state and county governments, and the private sector urgently contribute to solving the problem of matching the professional skills of graduates. To support graduates more effectively, investments in special forms of vocational training should be increased [61].

Ho, T. T. H., Le, V. H., Nguyen, D. T., Nguyen, C. T. P., & Nguyen, H. T. T. (2023), It is expected that this study will add to the current literature on students' employability and Human Capital Theory. On a practical level, the findings of this work can benefit higher education institutions and their students by helping them to become more employable in the labour market [62].

Islam, M. M. (2023), The analysis covered the implementation of a project aimed at increasing basic ICT skills and industry knowledge on automated operation of machines through the deployment of other Artificial Intelligence and ICT information and communication technologies. The project shall aim at providing labour with the skills necessary for a shift from manual labour to technical work. In addition, it aims to increase labour market opportunities and train the workers to take advantage of them. Finally, poverty reduction and inequality in Bangladesh are expected as a result of the project [63].

Ahmad, S. R., Isa, N., Liaw, A., Nazari, M. L., Abdullah, N. P., Rani, M. H., & Lokman, A. M. (2023), Current research has identified seven key employability skills, which include interpersonal skills, critical thinking, self-development, resourcefulness, ICT skills, basic skills and information literacy. In addition, employers emphasize qualities such as social skills, leadership skills, creative thinking, problem-solving and critical analysis [64].

Gurung, S. K., Chapagain, R., & Thapa, B. G. (2023), The research revealed that graduates are increasingly aware of their employability, strong academic qualifications in the field of construction and professional skills and qualifications outside the formal training environment. The results of the research have a financial impact on the wider debate between schools, policymakers and the researcher's economy based on knowledge [65].

Tripathi, A. (2023), Vocational education welcomes people from all backgrounds and sexes, he has found these programs. To advance their careers, people of all ages, especially young people, are interested in these programmes. The thesis also states that individuals' dreams for a job after education start-ups vary. To make these programmes better, we need to keep a close watch on them and teach softer skills like communication. Furthermore, as the new Education Policy implies, professional training should be combined regularly with vocational studies. In a big way, this thesis helps us understand how vocational



training can empower people in Manipur. Improvement of these programmes in the future is covered by this guide [66].

5. FINDING

Researcher investigated the complex influence of skill upgrading initiatives in this thorough study on improving youth employability. The research found a substantial beneficial relationship between the implementation of skill development initiatives and youth employment. Participants displayed significant increases in key employability skills such as communication, problem-solving, and flexibility through focused techniques such as vocational training, internship programs, and continuous learning opportunities. Furthermore, the study emphasized the need of instilling a development mentality in young people, highlighting the role of resilience and a proactive attitude in navigating the volatile employment market. The findings highlight the need of joint efforts among educational institutions, companies, and governments to establish an environment favourable to skill upgrading, eventually improving the employability of the youth population and contributing to overall economic growth.

6. SUGGESTION

To promote youth employability, comprehensive measures aiming at improving critical skills must be implemented. This study digs into the varied landscape of skill improvement initiatives and their tremendous influence on young people's employability. The research investigates several methods to skill development and how these strategies might effectively prepare youngsters for the dynamic needs of the labour market through an in-depth investigation. This study intends to give significant insights for educators, policymakers, and stakeholders interested in supporting the professional success of the younger generation by throwing light on the complicated link between skill improvement activities and employability outcomes.

7. CONCLUSION

The in-depth analysis carried out in this study highlights the central role of skills development strategies in promoting youth employability. Looking at different approaches to skills development, it turns out that targeted interventions contribute significantly to preparing young people for the challenges of the ever-evolving labour market. The results emphasize that training programs must be adapted to the specific needs of the industry to provide young people with adaptability and flexibility in addition to technical skills. As we conclude this report, it is clear that investing in strategies to upskill young people is an investment in the workforce of the future. Policymakers, educators and stakeholders are encouraged to work together to implement and improve these strategies to ensure more employability and empowered youth ready to succeed in their professional endeavours.

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AN AUTOMATIC HATE SPEECH DETECTION IN SOCIAL MEDIA THROUGH COMPUTATIONAL LINGUISTICS: INFIDELITY VIDEOS IN FOCUS

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ABSTRACT

The escalating prevalence of hate speeches, amplified by the misguided use of social media, introduces alarming challenges to the safeguarding of human rights and individual welfare. Motivated by this, the study explored the detection and classification of hate speech, specifically as observed in speeches and comments related to infidelity videos on YouTube Channel of Raffy Tulfo in Action. Further, the study utilized a computational linguistic algorithm through Long Short-Term Memory (LSTM). Additionally, the study sought to understand the distinctions in linguistic features between hate speech and non-hateful speech through LSTM. The researcher used 9,600,586 tokens for the analysis. To answer the first research question, the employment of LSTM helped identify hate speeches from non-hate speeches through effective data gathering through YouTube Application Programming Interface (API) and Whisper AI, text processing, labeling, coding, and algorithm deployment. Through that process, LSTM also classified them per target, including sex, quality, physical attributes, disability, religion, race, and class. Further, to answer the second research question, the study was able to identify 35 lexicons. Some samples include peenose, U10, kokey, taitok, quibolok, squami, and shut@, which were used negatively. Lastly, to answer the last question, tokenization, embedding, sequential dependencies, padding, training-testing, and evaluating helped LSTM assess hate speech linguistic features. It is evident in the confusion matrix showing 46% true positives and 49% true negatives and its evaluation performance of 95% F1 score, affirming its high robustness and reliability.

KEYWORDS: Applied linguistics, language, hates speeches, infidelity cases, computational linguistics, Long Short Term-Memory (LSTM), Philippines

INTRODUCTION

Hate speech is a malicious expression that uses offensive language directed to a person or group of people based on the characteristics they are representing in areas including gender, relationships, politics, ethnicity, race, beliefs, etc. [1] and, sadly, it is now on the rise with the advent of social media [2], [3], [4], [5], [6]. In addition, the United Nations (UN) emphasized the dangers of hate speech to human rights and life [7], especially on the increasing cases of infidelity where studies found that people's comments and reactions toward their partners' cheating behavior could go up from verbal assaults to killing their unfaithful partner, thus, creating a very alarming human behavior [8] and [9].

In a study conducted in Germany, researchers found out that more than half of the participants indicated that they were more likely to commit cheating on their partners. Further, in the same country, another study found that 77.7% of the participants indicated that they had caught or suspected that their current or previous mates had been unfaithful, and during the data analysis, the results showed that some of their immediate comments and reactions about the issue were through violence, humiliating their partners, terminating their relationship in a

harsh manner, using of psychological abuse, and hateful words and statements against their partners [10], [11].

Despite the relevance of this existing literature, there is only a little research utilizing computational linguistics to analyze and detect hate speech concerning cases of infidelity in the uploaded videos and comments on social media, particularly in the context of Philippines [12].

Additionally, with the advocacy of the United Nations in combatting hate speech, which can expose those targeted to discrimination, abuse, and violence, they heighten the necessity and priority in monitoring and analyzing hate speech through research. Motivated by these gaps, the researcher recognized the urgency to undertake this study in order to contribute to the prevention of any potential detrimental effects it may pose to our society [7]

This study aims to generate hate-contained datasets for application developers to combat online hate speech. The results can be used by educators and students in discussions and assessments. Additionally, infographics will be created to raise awareness of hate speech prevalence on social media. The study's algorithms will contribute to fostering an inclusive online community. Findings will be disseminated through



publications, lectures, and participation in research forums, seminars, and conferences at local, national, and international levels.

Purpose of the Study

The purpose of this quantitative corpus-driven study was to find out how computational linguistics techniques contribute to the identification, detection, prediction, classification, and analysis of hate speeches found in social media in relation to infidelity cases here in the Philippines. This study also utilized computational linguistic algorithms to distinguish, identify, and analyze the linguistic features of hate speeches from non-hateful speeches.

Research Questions

The following research questions were sought:

1. How is hate speech classified as found in speeches and comments relating to the infidelity videos through computational linguistics?
2. What are the linguistic features of hate speeches as identified through computational linguistics?
3. How do the linguistic features of hate speech differ from those of non-hate speech through the use of Long Short-Term Memory (LSTM)?

METHODOLOGY

This study is quantitative in nature, employing a corpus-driven approach. Quantitative research design is a research method that involves collecting and analyzing numerical data to answer research questions or test hypotheses and mentioned that this approach is characterized by its use of statistical methods and large sample sizes to identify patterns and relationships in the data [13].

In particular, quantitative corpus-driven analysis is a research approach that involves the use of large collections of texts or corpora and computational methods to analyze and interpret patterns and relationships in language use. This approach is quantitative in nature because it involves the use of statistical tools and techniques to identify patterns and relationships in the data. The corpus-based approach to language analysis is based on the idea that language use can be analyzed and understood by examining large collections of naturally occurring language data. By analyzing these collections of texts, researchers noted that patterns and relationships in language use that might not be apparent from individual texts could be identified [14], [15].

Further, one of the specific approaches of a quantitative corpus-driven analysis is computational linguistics. This approach seeks to scrutinize extensive text datasets to discern language usage patterns and trends. This technique is well-suited for linguistic data because of its capacity to examine linguistic features, employ natural language processing methods, make use of machine learning models, and efficiently manage substantial data volumes [16].

In this study, the researcher found this method useful in shaping the results toward detection, identification, prediction, and classification of hate speeches found in the infidelity video comments and video transcripts from the infidelity cases found

in the Youtube Channel of Raffy Tulfo.

Research Material

The research materials for this study were the transcripts from the selected infidelity videos from various social media platforms, including the comments written by the netizens. Moreover, Devopedia, known for natural language processing methodologies, suggested that a good text corpus should be at least half a million words or 500,000. It is to ensure that low-frequency words are also adequately represented. Specifically, to get better results, the researcher utilized 9,600,586 tokens for the data analysis and scraped them out from the transcribed audio-visual files and the extracted comments on the infidelity videos from YouTube [17].

Furthermore, the selected materials were chosen through the following inclusion criteria: their popularity, infidelity-related topics, and the varied hate or aggressive speeches present. In the first criterion, the term media popularity refers to the number of engagements, which includes the reactions, comments, and number of views. The second criterion is about the YouTube videos that center on infidelity topics from Raffy Tulfo in Action YouTube Channel. The last criterion is the presence of varied hate speeches among the comments of the netizens on the video. These speeches are the main concern of this study and were used to analyze the selected deep-learning techniques under computational linguistics.

Data Analysis

To aid me in answering the research questions in my study, relevant steps were performed in conducting this quantitative corpus-based research.

To answer the research questions from the previous chapter, frameworks under the computational linguistics concept [18], the concepts of hate speech identification [19], and the concept of hate speech targets [20].

Specifically, the steps below helped answer the first research question. In order to classify the hate speeches found among the infidelity videos through computational linguistics, the researcher utilized a deep learning model through Long Short-Term Memory (LSTM) using Phyton. Phyton is commonly used for developing websites and software, task automation, data analysis, and data visualization. On the other hand, LSTM is a special type of neural network which is designed to work with Phyton. It has sequences of a data set, and a long-term dependency exists. LSTM is useful when one needs a network to remember information for a longer period. This feature makes LSTM suitable for processing textual data.

Further, LSTM is a collection of similar cells, where each cell processes the input in a specific approach. Using the forget gate, information to be forgotten is identified from a prior time step. It has an input gate and tanh, where new information is sought to update the cell state. The information from the two gates below is used to update the cell state. Lastly, the output gate and the squashing operation provide useful information. This arrangement of cells facilitates LSTM to remember earlier information for a longer time [21].



To proceed with the classification of hate speeches, the researcher collected a dataset from YouTube, which is an open-source platform. These are the 72 videos from Raffy Tulfo in Action YouTube page where the researcher scraped the comments using YouTube Application Programming Interface (API) while the video transcriptions were taken using Whisper AI implemented through Google Colaboratory – Whisper is an automatic speech recognition system by Open AI that allows an efficient transcription of audios from videos [22]; meanwhile, Google Colaboratory is a cloud-based platform provided by Google that allows users to write and execute Python code in a collaborative environment.

The researcher combined the gathered YouTube comments and video transcriptions to serve as the main dataset to be used during the deep learning analysis in order to attain appropriate results. From these data sources, the researcher was able to gather 9,600,586 tokens prior to data pre-processing.

During the pre-processing, the researcher performed lowercasing of all tokens and then proceeded to remove the following: a.) stopwords in English, Tagalog, and Bisaya languages, as well as the removal of special names. Stopwords provide no meaningful information, especially if we are building a text classification model. Therefore, the researcher removed stopwords from the dataset. The researcher also removed punctuations and transformed multi-spaced words into single spaces, including the uniform resource locator (URLs), emoticon Unicode, dates, and other special characters.

Using Python, the researcher also proceeded to tokenization using the Natural Language Toolkit (NLTK) library. Through this process, whitespaces were added before and/or after preserved special character strings (wherever necessary) in order for the tokenizer to recognize them as individual tokens. This allows for the analysis of linguistic features at the word level, such as identifying the presence of specific words or patterns associated with hate speech. This also includes word embedding, padding, and sequential dependencies to capture linguistic relationships. These processes play a role in enhancing LSTM's ability to understand, generalize, and make predictions based on sequential input data.

To identify comments as hate speeches from non-hate speeches, the concept of hate speech identification by Waseem and Hovy is used [19]. Specifically, they conceptualized rules and indicators on how a certain remark was to be categorized under hate and non-hate speeches. The researcher also utilized Silva et al. classification schemes of hate speeches to identify which targets these hate speeches belong [20].

To answer the second research question, the researcher still used the computational linguistics concept [18] through the help of Long Short-Term Memory (LSTM). Here, the researcher obtained the unique lexicons related to the targets of hate speeches and also provided its other spelling variants.

Lastly, to answer the third research question, the same deep learning model was used in order to identify and analyze the linguistic features of hate speeches and compare them with the

features of non-hate speeches. It is done by allowing the dataset under processes such as tokenizing, sequencing, embedding, and padding. Further, it is also done by getting the performance evaluation of LSTM, such as the recall, precision, accuracy, and F1 score. It also included the confusion matrix of the hate and non-hate features.

Further, I noted that before utilizing the selected computational linguistic model, I first checked the data set since it might become highly imbalanced. This needs to be considered in order to avoid biased results. Next, the researcher divided the data set into training and testing. I divided the modeling dataset into training and testing sets by assigning two-thirds of the data points to the training set and one-third to the testing set, or a 70:30 ratio – a process needed to avoid overfitting. Consequently, I trained the model on the training set before applying it to the test set. This allows us to assess the efficacy of our model [21].

The following performance evaluation criteria were obtained, which include the values of accuracy, precision, recall, and F1 score. First, accuracy is the ratio of the total number of entries correctly classified to the total number of observations. For a balanced dataset, accuracy is the metric by which algorithm performance can be compared. Second, precision. It is the proportion of total positive entries that correspond to entries that have been correctly forecasted as positive. Moreover, a greater value for precision indicates a lower rate of false positives. The third is recall. It is the ratio of the total number of positive entries to the number of positive entries that are correctly predicted. This ratio is expressed as a percentage, and it basically indicates the fraction of positive observations that were categorized correctly. Lastly is the F1 score. It is the weighted average of precision and recall. It takes both false negatives and false positives into account. For a problem in which the classes are unbalanced, the F1 score is a more reliable metric than accuracy [21].

Also, I set aside all my prejudgments by analyzing the text through a quantitative corpus-driven analysis. I am dedicated to engaging in a thorough and unbiased examination of facts, theories, and evidence. This process was necessary to keep a balance between subjectivity and objectivity.

I also emphasized the need for thorough expert debriefing and analysis of quantitative-driven corpora. This was done to secure the accuracy and reliability of the data. The results that emerged from the experts' review were discussed and interpreted objectively. I also employed the help of an expert debriefer to confirm my analysis, interpretation, and discussion.

Lastly, the gathering and analysis of data started in July 2023 and ended in October 2023. More so, I believe that this time duration is sufficient to get this study done on time.

RESULTS AND DISCUSSION

Classification of Hate Speeches Found in Infidelity Videos Through Computational Linguistics

The table below presents the general difference between the number of hate speeches and non-hate speeches present among



the infidelity videos from Raffy Tulfo in Action YouTube channel through the computational tool named Long Short-Term Memory (LSTM). Here, we can see that there are 471,714 or 72% of hate-contained speeches while only 180,777 or 28% for non-hate speeches. These data were generated when LSTM was categorized, as depicted in the table below. Further, under its classification per target, hate speeches pertaining to sex garnered the largest dataset, totaling 328,836 or 50%. It is then followed by hate speeches targeting or based on a quality that

does not fall under any of the other targets, totaling 320,116 or 49%. Physical attributes received 75,866 or 12% hate speeches while targeting individuals with disabilities received 33,202 or 5% hate speeches. Further, hate speeches targeting someone's religion received 19,290 or 3% hate speeches, while hate speeches based on racial attributes received 6,170 or 0.9% hate speeches. Lastly, class-based hate speeches, likely related to socioeconomic status or social class, received the lowest number of hate speeches, amounting to 1,538 or 0.2%.

Table 1.
Hate and Non-Hate Dataset Composition

Label	Number of Comments & Transcriptions	Sample Lines
Hate Speeches	471714	
Race	6170	<i>buhok pa lang nung lalaki pang bisakol na e magpapabuntis ka pa dyan hahahaha</i> -Data No. 153634 (Even the man's hair looks like a Bisakol, and you're still trying to get pregnant there, hahahaha.)
Sex	328836	<i>babaeng paiyot mababang uri mababa ang lipad dapat dyan pinapakulong.</i> - Data No. 2293 (Flirty woman, low class, has low morals, she should be imprisoned.)
Physical	75866	<i>ang ganda ng original tapos ang pangit ng kabeet mukhang tae, yawa.</i> -Data No. 104895 (The original is beautiful, but the mistress is ugly, looks like feces, damn.)
Disability	33202	<i>..cge mn ug panilap.. murag halas mn.. wa pa cguro ka tugpa.. mongoloid mn ang laki..</i> -Data No. 102030 (You keep on licking... acting wild... maybe you are not yet cured. You look like a Mongoloid.)
Religion	19290	<i>i think this girl is a muslim ...sorry but i really hate muslims,,,poor baby ..stay strong kuya,,makapal mukha ng mga cheater.</i> -Data No. 4380 (I think this girl is a Muslim... sorry, but I really hate Muslims. Poor baby, stay strong, brother. Such thick-faced cheaters.)
Class	1538	<i>ipakulong yan oi pistii, pobre raba kaayu unya gapangabit ewwww.</i> -Data No. 322809 (Put that person in jail, damn it, they are very poor and yet they're having an affair. Ewww.)
Quality	320116	<i>I7ongoli te.. sana mamatay ka nalang.</i> -Data No. 29808 (You're overreacting... I wish you would just die.)
Non-hate Speech	180777	<i>bakit ganito ang mga comments? Parang mga I7ongoli naagawan ng kendi...</i> -Data No. 174 (Why are the comments like this? It's like children who had their candy taken away...)
Total	652491	

The table also mentioned the presence of 180,777 non-hate speeches. It is also imperative to share sample data that represent the mentioned category. In this study, non-hate speeches are categorized and denoted by code 0 during the deep learning analysis using LSTM. Further, no classification of non-hate speeches was made in this study since it was not presented in the adopted framework of analysis.

These findings corroborated the study's concept of hate speech classification by Waseem and Hovy. They provided criteria for identifying hate speech and non-hate speeches derived from the

Critical Race Theory by Bell in 1970. Specifically, they conceptualized rules and indicators for categorizing a particular remark under hate and non-hate speeches [19]. The findings also agreed with the classification schemes of hate speeches of Silva et al. in identifying the targets of hate speeches present in the corpora. They postulated that hate speeches can be grouped under the following targets: race, sex, physical, disability, religion, class, and quality [20].

Further, the results of this study also corroborate with its foundation study from Silva et al.'s framework that categorized



hate speeches into seven distinct targets — race, sex, physical attributes, disability, religion, class, and quality. The findings of this study reveal that sex and quality were the most prevalent categories, comprising 328,836 and 320,116 instances, respectively. Subsequently, fewer instances were observed in the categories of physical, disability, religion, race, and class, which are ranked in descending order [20].

Use of Computational Linguistics to Identify Linguistic Features of Hate Speeches

In this section, the researcher utilized LSTM to generate and locate hate-containing words as well as other words that are directly related to their respective targets. This is further done by obtaining their numerical frequencies, which means that this is the number of times being used among the nine million tokens that were gathered.

With these, the researcher provided tables from Table 2.1 to Table 2.7, which contained the varied lexicons per target, corresponding spelling variants, and their respective sample comments. Note that some lexicons per target may overlap in terms of their meaning, but they were still chosen by the researcher due to their unique use and the presence of other linguistic functions they portrayed within the comments and transcriptions.

Table 2.1 below indicates the present linguistic features of the ten selected lexicons that are related to the target of race, especially in terms of their spelling variants. These are the lexicons that express comments towards or on the basis of race, ethnicity, or nationality. The first sample lexicon is “peenoise”.

Table 2.1
Linguistic Features of the Lexicons Targeting Race

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
negraaa	341	Negraaaa Negraha Negrang Negrat Negrita Negritaaaaaa Negritang Negro negrone	<i>ganda ni missis pero si kabit ay negraaa</i> -Data No. 297868 (Missis is beautiful, but the mistress is a Negraaa.)
mongoloid	39	Mongoid Mongoloid Mongol Mongol10 Mongolayd Mongolepsy 18Ongolia 18Ongolian Mongolloid Mongoliod Mongoloyd Mongolyd Mongolyod	<i>anoh bah kc nakita mo sa mongoloid na 2.saksakan ng pangit.</i> -Data No. 511374 (What did you see in that Mongoloid? He is very ugly.)
moklo	3	Muklo	<i>moklo man diay na, dabdabi na.</i> -Data No. 6849 (She is a “moklo”. Burn her!)
peenoise	2	Pinoy Pinoys Penoy Filipinoy	<i>kabit 18ongol ang tapang pa. peenoise talaga.</i> -Data No. 500641 (The mistress is wise. Despite being a mistress, she acts confidently. Truly, a ‘peenoise.’)
bisakol	2	Bisakul	<i>nung lalaki pang bisakol na e</i> -Data No. 153634 (By just looking at his hair, you would know he is a ‘Bisakol.’)

The next linguistic analysis focuses on lexicons related to sex and sexuality, examining their linguistic features. These terms

may encompass lexicons that express opinions, attitudes, or derogatory comments about individuals based on their sexual



identity or behavior. Table 2.2 presents the ten selected sex-related lexicons that are selected because of their hate-

containing characteristics or that they are directly related to the said target.

Table 2.2
Linguistic Features of the Lexicons Targeting Sex

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
kipay	54	kipay kipks kipkip kipwang kipyas	<i>ipakulong nalang yan...libog ni kuya at kati ng kipay ng kabit</i> -Data No. 37391 (Just put that person in jail. Brother is horny, and the vagina (kipay) of the mistress is itchy.)
palautog	26	palauttug parautog pautog utogan utoggg	<i>palautog man mura mag iro ning kigwa.</i> -Data No. 100289 (This idiot is horny (palautog) like a dog.)
jer2	6	jejerjer jer2x jer jerbaks	<i>ahahaha kabibo nila ui hahaha jer2 pa more.</i> -Data No. 472516 (They are having fun, that what you get for having “jer2”.)
Paeut	3	paeutin paiyots paiyut	<i>kapal ng mukha mo. Ikaw nga nag paeut sa may asawa</i> -Data No. 370305 (You have the nerve. You’re the one who had sex (paeut) with someone else’s spouse.)
u10	3	uten otien otin tttt ttttiiiiii tttttt tite titeng titi tt	<i>utak gamitin at wag ang u10</i> -Data No.227708 (Use your brain and not your dick (U10).)

The next tabular data of Table 2.3 which is presented above explored the selected lexicons that express hate or criticism

based on physical characteristics. These terms are designed to insult or demean individuals by targeting their appearance.

Table 2.3
Linguistic Features of the Lexicons Targeting Physical Attributes

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
kokey	559	kokey kokeyy kokeyyy kokeyyy kokeyyy koki kokie kokkey	<i>parang kokey mukha ng kabit</i> -Data No. 569667 (Her face is like ‘Kokey.’)



shokoy	18	Shokey	<i>mukhang shokoy ang pinagaagawan</i> -Data No. 600988 (They're fighting over someone who looks like a 'shokoy'.)
yobab	5	yobabs baboyy baboyyyyyyy	<i>ang sarap sipain nung babaeng yobab!</i> -Data No. 11095 (The 'yobab' girl is so enjoyable to kick!)
jungit	4	junget	<i>jusko jungit naman asawa mo teh!</i> -Data No. 503304 (Oh my, your spouse is really 'jungit'!)
balmond	3	balmon balmont	<i>baka kamukha 20ongolian20 ang maging anak.</i> -Data No. 271689 (Their child might look like 'Balmond'.)

The next table under Table 2.4 explains the unique lexicons targeting disability. These are the lexicons that express hate or non-hate opinions towards or on the basis of a health condition,

including but not limited to a physical, mental, sensory, or emotional disability or impairment.

Table 2.4
Linguistic Features of the Lexicons Targeting Disability

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
buang	1882	buang2 buanga buanget buangit buangon buang	<i>buang ka babae ka mukha kang titi</i> -Data No. 12521 (You're an idiot(buang), woman. Your face looks like a penis.)
pakno	6	none	<i>walang ecip ang pakno.</i> -Data No. 23523 (The pakno has no brain.)
boduy	6	ambudoy bodoy budoy budoybudoy budoyyy boboe obob	<i>parang si boduy ang pangit ng tawa</i> -Data No. 132235 (He is like 'boduy,' the laughter is ugly.)
otistic	6	autism autistic	<i>otistic c boy at monggoloid c kabit.</i> -Data No. 109399 (The boy is otistic and the girl is monggoloid.)
taitok	2	none	<i>naa man guro kay taitok gurl</i> -Data No. 84801 (Gurl, you might have a "taitok".)

Table 2.5 discusses the linguistic features of the selected lexicon targeting religion. These selected words may or may not

directly express hate towards or on the basis of religious affiliation or belief.



Table 2.5
Linguistic Features of the Lexicons Targeting Religion

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
demonyo	2977	dedemonyohin demonyoan demonyoca demonyoha demonyohan demonyohin demonyoka demonyolica demonyoooooooooooo	<i>angelica, pero demonyo ka.</i> -Data No. 640775 (Angelica (is the name), but you're a demon.)
y*waa	44	yawa2 yawaa yawaaa yawaaaa yawaaaaa yawaaaaaa yawaaaaaaa yawaag yawoo yawooo	<i>kalamiy kulatahon ning y*waa nga feeling guapo.</i> -Data No. 259616 (It's disgusting to entertain this demon who thinks he's handsome.)
taning	29	satanas	<i>ng aantay na sa kanila c taning sa impyerno</i> -Data No. 209978 (Taning is waiting for them in hell.)
Jablo	3	Jablu Dyablo Dyablos Dyabyo Diyablo Diyablong	<i>ate na kapatid ni jablo dapat di kana sumabat pa.</i> -Data No. 183702 (You should not interfere lady who is a sibling of "jablo.)
quibolok	1	quiboloy quibs quibuloy	<i>kampon din yata to ni quibolok c ate</i> -Data No. 541242 (I think she is also a member of quibolok.)

Next in line are selected lexicons targeting or relating to class which are found in Table 2.6. These are the lexicons that express hate towards or on the basis of social class or socioeconomic status.

Table 2.6
Linguistic Features of the Lexicons Targeting Class

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
kafal	24	ankafal Kafalll Kafalllll kafalmuks	<i>kafal nung lalaki ah</i> -Data No. 72454 (The guy is shameless.)
abogaga	16	Abogago abogagao	<i>un nanay parang abogaga ng anak nya....</i> -Data No. 72007 (Her mom acts like an "abogag" for her child.)
squami	6	squammy squamy Skwammy Skwamy	<i>hairstyle at diy na braces palang ng lalake ,halatang walang kwentang squami.</i> -Data No. 65291 (With that hairstyle and DIY braces, the guy seems a worthless "squami".)
poorita	4	Poorito Poorpes	<i>ewww 5,000, poorita!</i> -Data No. 256395



		poorever	(Ewww, 5,000, 'poorita!)
felingera	4	Felingero Felingon Felings Feling felengrera	<i>felingera kang kabit ka.</i> -Data No. 139961 (You are a pretentious mistress.)

The last table discussing the linguistic features of the selected lexicons is the words targeting quality, which can be found in Table 2.7. These are the lexicons that either express hate or non-

hate but are still related to the target or based on a quality that does not fall under any of the previously mentioned targets.

Table 2.7
Linguistic Features of the Lexicons Targeting Quality

Lexicon	f	Orthography (Spelling Variants)	Sample Lines
ogag	450	Ogagg Ogaggg Ogago Ogags Ogak Gago gago qaq0 qaqi qaqu qaqo	<i>saya ng mga demonyo, mga ogag!</i> -Data No. 266209 (The demons are happy, you fools!)
fishtea	62	Fishte Fishtea Fishteng fishty	<i>mukha naman bakla amfota</i> -Data No. 170054 (Looks like a gay guy, the fuck!.)
amputek	58	Amputa Amputaa Amputaaaaa Amputaaaka Amputah Amputahh Amputahhh Amputang amputangina amputha	<i>nauutal utal pa, amputek!</i> -Data No. 590147 (Having stuttering, amputek!)
animels	11	Animal Animels Animelsss Animelz animl	<i>animels! ipkulong nlng yan o putulan ng hootenn.</i> -Data No. 35589 (Animals! Just lock them up or cut off their dicks.)
shut@	2	Shutaa Shutaaa Shutaaaaaa Shutaina Shutaena Shutacca Shutaca Shutainamez Shutanamels Shutanamers Shutanames Shutaness	<i>hay naku kuya shut@ ka</i> -Data No.35410 (Oh, brother, you shit!)



In summary, the linguistic features of these lexicons under this research question illustrated the dynamic, context-dependent nature of hate speech and expressive elements to convey derogatory beliefs about targeted individuals or groups across various targets of hate, including race, sex, physical attributes, disability, religion, class, and quality.

The researcher's results agree with a number of study findings. They postulated that LSTM models can also be an effective approach for identifying spelling variations within a dataset. LSTM models excel in discerning patterns within sequential data, particularly in text. This capability makes them well-suited for applications such as spelling detection and normalization. Within this framework, spelling normalization is conceptualized as a task involving character-based sequence labeling, and the appropriateness of employing a deep bi-directional LSTM model is investigated. It is crucial to recognize that the efficacy of these models is contingent upon the quality and representativeness of the training data, as well as the specific characteristics of the text data and the nature of the problem at hand [23], [24], [25].

This study also corroborate with the findings of another study where highlighted that participants extensively utilized virtual spellings like 'bz' for 'busy,' 'wid' for 'with,' and 'u' for 'you.' These novel communication practices have swiftly emerged, contributing to innovative orthographic features within English words. The study concluded by suggesting that the permanence of these orthographic changes in English orthography would be determined over time [26].

Lastly, a study findings using the Keyword in Context (KWIC) approach employing Mozdeh's concordance to analyze the words used by people in social media resulted that there were numerous laugh variants (e.g., hahahahahahaha, hahaha), along with abbreviations like 'lmao' and 'lol.' The researcher also discovered terms with numerous spelling variations, such as 'this' (88 variants), 'screaming' (84), 'slayed' (76), 'ahmazing' (74), 'sick' (69), 'bomb' (69), 'preach' (66), 'gorg' (55), 'lush'

(54), 'omfg' (53), 'poppin' (50), and 'lit' (49). The diverse ways these words are spelled offer insights into sentiment analysis and online communication culture [27].

Difference in terms of the Linguistic Features of Hate Speech from Non- Hateful Speech Through the Use of Long Short-Term Memory (LSTM)

In this study, the researcher employed the Long Short Term Memory (LSTM), a type of deep learning model known for its capability to retain information over extended sequences, a crucial feature in language-related tasks. LSTM network was able to classify, process, and make predictions based on time series data. This successfully analyzed the text and speeches since LSTM was properly trained to identify patterns and structures in the text that are indicative of hate speech. Given its proficiency in handling sequential data, which in this study's case are tokens, the model processes individual words through the tokenization process, embedding and padding, retains them in its memory, and recalls information acquired from preceding words. To explain further, tokenization helps the model understand the structure of the input text by representing it as a sequence of discrete tokens, thus, capturing linguistic features associated with hate speech. In another hand, embedding allows the model to understand the contextual and semantic relationships between words. Lastly, padding ensures that each input sequence has the same length, allowing the model to process multiple sequences simultaneously. In all, these steps collectively contribute to the model's ability to differentiate linguistic features of hate speech during training and testing phases.

Table 3 shows the restructuring of the dataset, especially considering imbalanced class distributions and downsampling of the majority class. By addressing biases and ensuring the representation of specific hate speech categories, the dataset preparation can facilitate a more accurate and balanced learning process for the model. Further, the dataset was split into 70% for training and 30% for testing, similar to our studies that required training and testing.

Table 3.
Hate and Non-Hate Classification After Downsampling

Label	Number of Comments & Transcriptions
Hate	180777
Race	2331
Sex	125929
Physical	29115
Disability	12674
Religion	7443
Class	586
Quality	122514
Non-hate	180777
Total	261554

The data splitting was vital when using a deep learning, as it helps avoid overfitting, thus obtaining the best result. On the contrary, when the data is overfitted, which means the training is lower than the testing, the model cannot generalize and fits too closely to the training dataset instead. It is understood that typically, a 70-30 percent data split yields optimal results.

The LSTM operates by initially training on a labeled dataset, using 70% of the collected data for this purpose. The training involves adjusting the model's parameters to minimize the difference between predicted and true labels. Subsequently, the model's accuracy is assessed using the remaining 30% of the



dataset as a testing set. The training dataset consists of labeled tokens, indicating instances of hate speech or non-hate speech,

with additional labels specifying the specific targets of hate for instances categorized as hate speech.

Table 4.
LSTM Hyperparameters

Hyperparameter	Value
Number of Nodes	256
Batch Size	256
Maximum Number of Words	4906
Maximum Sequence Length	818
Epoch Size	5
Learning Rate	0.01
Loss Function	binary_crossentropy
Activation Function	ReLu
Optimizer	Adam
Dropout Rate	50%

During the training phase, the model adjusts its internal parameters to minimize the difference between predicted and actual labels. This iterative process enables the LSTM to recognize patterns and linguistic features associated with hate speech. Once trained, the LSTM applies its learned patterns during the testing phase to classify new texts as either hate speech or non-hate speech based on the acquired knowledge.

Since the original dataset composition, shown in Table 1, is highly imbalanced, in order to remove bias, the majority class was down-sampled, resulting in the new dataset shown in Table 3. Afterward, the dataset was split accordingly, and it was later employed using the LSTM architecture with adjusted hyperparameters, as shown in Table 4.

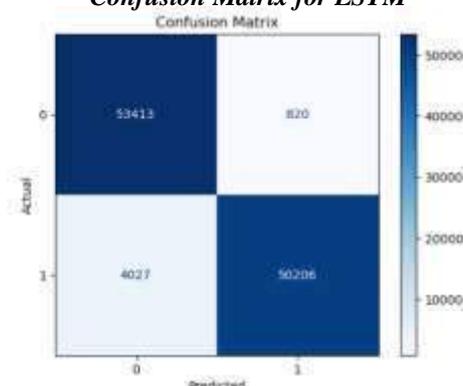
Every hyperparameter plays a crucial role in fine-tuning the model. The value of nodes indicated above can enable the model to learn more complex patterns in the data, which can be beneficial for capturing intricate linguistic features. Batch size represents the number of samples processed in each iteration during training. The mentioned batch size can lead to more stable updates of the model's weights but may require more memory. It can impact how the model generalizes linguistic features from the training data. The specified maximum number of words and maximum sequence length are determined by characteristics inherent to the dataset utilized in this study. A larger vocabulary allows the model to potentially capture a more diverse range of linguistic features while the specified sequence length helps the model handle varying lengths of text.

Concurrently, the epoch size and dropout rate mirror those used by other researchers having related tokens of the study. The epoch size refers to the number of times the algorithm worked through the entire training dataset, meaning that the model went through the training data 5 times during the training phase. Meanwhile, the dropout rate is a regularization technique used to prevent overfitting. Furthermore, the choice of the loss function, activation function, and optimizer is also employed LSTM for hate speech detection in social media. These features are crucial since they help the model effectively learn and generalize the dataset. Having the right combination of these parameters can help the model to converge to an optimal solution and make accurate predictions on new, unseen data.

At the same time, the remaining values were chosen by the researcher and are set to their default values. After the implementation of the LSTM Model, the performance evaluation and the confusion matrix were computed. These metrics are needed to see how well the LSTM model performs hate speech detection. Each evaluation metric – Precision, Recall, F1 Score, and Accuracy provides a perspective on the model's strengths and weaknesses.

Also, it avoids biased assessments and, instead, provides a more nuanced understanding regarding the model. Additionally, the confusion matrix helps clearly visualize the model's predictions into true positives, true negatives, false positives, and false negatives. The result of the confusion matrix is found in Figure 1 below.

Figure 1.
Confusion Matrix for LSTM





For this study, 50206 were identified as true positives, meaning that these are the number of hate speeches that were correctly identified as hate speech; 53413 were true negatives, meaning that these are the non-hate speeches correctly identified as non-hate speech; 4027 were false negatives meaning that these are the number of classified texts as non-hate speech but are actually hate speech and 820 were false positives meaning that it identified texts as hate speech but are actually non-hate speech, as depicted in Figure 2. Through this confusion matrix produced by LSTM, we can see how the linguistic features of

hate speeches and non-hate speeches were processed, differentiated, and categorized. More so, it can be observed that in this study, only a few mistakes were made by the LSTM, as observed in the huge discrepancies of values between true positive and false positive and between true negative and false negative, which means that LSTM has performed well during the process.

Furthermore, this matrix also allows for the performance metrics to be derived, as presented in Table 5.

Table 5.
Performance Evaluation of LSTM

Model	Accuracy	Precision	Recall	F1 Score
LSTM	0.9553	0.9839	0.9257	0.9540

In assessing the performance of the LSTM model in this study, various metrics were employed to measure its efficacy in detecting hate speech. The model's accuracy, reaching 95.53%, signifies the overall correctness of its predictions, encompassing both true positive and true negative instances. Precision, representing the ratio of correctly predicted positive instances to the total predicted positives, yielded a substantial value of 98.39%. This implies that when the model designates a text as hate speech, its accuracy exceeds 98%. The recall, gauging the model's capacity to capture all genuine instances of hate speech, recorded a value of 92.57%. The F1 score, a harmonic blend of precision and recall, was computed at 95.40%. These metrics – all above 90%, collectively underscore the model's robust performance in accurately discerning both hate speech and non-hate speech instances, maintaining equilibrium in minimizing false positives and false negatives. The high precision indicates low false-positive rates, and the relatively high recall suggests effective capture of actual instances of hate speech. Overall, the combination of these metrics reflects the robustness and reliability of the LSTM model in hate speech detection.

for real-world applications, particularly in content moderation across various platforms where hate speech detection is a critical concern [21].

Further, the results of this study are also corroborated by the study conducted which demonstrates the efficacy of the LSTM network classifier in achieving a notable accuracy of 86%. The implementation of an early stopping criterion based on the loss function during training enhances the model's performance. The findings underscore the potential of LSTM networks in effectively discerning hate speech, thereby offering a valuable contribution to the ongoing efforts to mitigate the proliferation of toxic content in online spaces [30].

Concluding Remarks

In conclusion, this study has been a complex and challenging exploration of the intricate world of hate speech within the context of infidelity videos through the help of computational linguistics. The researcher's investigation into the linguistic features of hate speeches, employing advanced computational linguistics techniques, aimed not only to uncover patterns within these expressions but also to contribute meaningfully to fostering a safer online environment. As we advance, the intersection of language study, computer learning, and ethical considerations becomes increasingly important. Exploring hate speech involves more than just using algorithms; it requires a careful balance between technological advancements and ethical responsibility. The researcher aims to foster a digital space where diverse voices can coexist, engage in meaningful dialogue, and contribute to a safer, more inclusive online community.

The result agrees with the algorithm model of Long Short-Term Memory (LSTM) that through the process of tokenization, embedding, padding, sequential dependencies, training, testing, evaluating its performance, and other important recurrent processes, it helps LSTM assess hate speech and non-hate speech linguistic feature [28].

The study's result also approved the contention that LSTM networks can be trained to recognize linguistic features of hate speech. They also added that a confusion matrix can help assess the linguistic features of hate speeches and non-hate speeches. A confusion matrix is a table that is used to evaluate the performance of a classification model. It shows the number of true positives, true negatives, false positives, and false negatives [29].

The mentioned results above are also supported by various researchers' findings utilizing various machine learning or deep learning methods. The study's overarching conclusion affirms the LSTM model's robustness and reliability in accurately discerning hate speech and non-hate speech instances based on linguistic features. This finding holds significant implications

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COVID-19 PANDEMIC'S IMPACT ON LOGISTICS AND SUPPLY CHAIN INDUSTRY

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ABSTRACT

The logistics and supply chain industry forms the backbone of global business and ensures the smooth movement of goods and services. The outbreak of the COVID-19 pandemic in late 2019 set off a chain reaction that profoundly affected these critical operations.

Purpose: The purpose of this study is to analyze the multifaceted impact of the COVID-19 pandemic on the logistics and supply chain industry. It aims to explore the challenges faced by supply chain professionals, the strategies organizations use to mitigate disruptions and the resulting changes in industry dynamics.

Methods: The research uses a mixed method approach that includes both quantitative and qualitative data collection. Quantitative data is collected from a survey of companies in the logistics and supply chain industry. Qualitative data is collected from interviews with experts in the field.

Findings: The pandemic has exposed a series of challenges that have spread throughout the supply chain. Disruptions included factory shutdowns, transportation restrictions, erratic demand patterns, and labour shortages. Organizations are responding by rapidly adopting digital technology, where real-time monitoring, predictive analytics and automation play a central role in improving supply chain visibility, sustainability and risk management.

Conclusions: The study concludes that the COVID-19 pandemic has had a significant impact on the logistics and supply chain industry. The pandemic has brought many challenges to companies, but it has also brought innovations and new ways of working. Research shows that the logistics and supply chain industry is in transition, and companies that adapt to the new reality will be better off in the long run.

KEYWORDS: COVID-19, Logistics, supply chain, demand, distribution

1. INTRODUCTION

The COVID-19 pandemic has had a major impact on the logistics and supply chain industry. The pandemic has caused disruptions in supply chains around the world, causing shortages, increased transport costs and longer delivery times. One of the most important consequences of the pandemic was the movement of goods across the border. Border closures and travel restrictions have made it difficult for goods to move between countries. This has led to commodity shortages and higher consumer prices in some countries. The pandemic has also significantly affected the transport sector. The demand for transportation services has decreased as a result of the pandemic, which has led to a decrease in freight rates. However, transport costs have increased in some cases due to increased demand for essential goods and safety measures to protect workers.

The pandemic has also significantly affected the logistics industry. The demand for logistics services has increased as a result of the pandemic, where companies have had to adapt

their supply chains to meet the challenges posed by the pandemic. This has increased the demand for warehousing and distribution services and the use of technology to track and trace shipments. The pandemic has also significantly affected the workforce in the logistics and supply chain industry. The pandemic has led to layoffs and layoffs in the industry as companies

have struggled to adapt to the challenges posed by the pandemic. The pandemic has also increased the demand for workers with special skills, such as technology and security. The purpose of this study is to understand the impact of the COVID-19 pandemic on the logistics and supply chain industry. The study explores industry challenges and opportunities and identifies key trends shaping the industry. The study also provides recommendations on how the industry can adapt to the challenges of the pandemic and become stronger in the future.

The COVID-19 pandemic, caused by the new SARS-CoV-2 coronavirus, has emerged as a global crisis of unprecedented



scale. Since its outbreak, the pandemic has profoundly affected all aspects of society, changed established norms and caused unprecedented disruption worldwide. The virus has been characterized by rapid spread and severe respiratory symptoms, prompting governments to take unprecedented measures, including widespread shutdowns, travel restrictions and quarantine protocols.

As the pandemic continues to affect global dynamics, understanding its impact on the logistics and supply chain industry is critical to developing strategies that can improve resilience, mitigate disruptions and ensure smoother operations in the face of future uncertainty. This study aims to deepen the multifaceted consequences of the pandemic on this vital sector and shed light on the adaptations and innovations that have emerged to address these challenges.

2. LITERATURE REVIEW

In order to elucidate the research gap and to uphold the objective, the review of literature is conducted.

The COVID-19 pandemic has caused both loss of life and economic damage. Lockdown measures have disrupted manufacturing and logistics, leading to a decrease in the supply of products. This study focuses on the impact on the public distribution system (PDS) network and its ability to match supply with demand. The simulation model developed in this study can help create a resilient and responsive food supply chain, taking into account changing circumstances and travel restrictions. The paper also suggests future research to further strengthen the food supply chain network (Tiwari, M. K. 2021). The COVID-19 pandemic has caused significant damage to industries worldwide, disrupting the availability and supply of raw materials and finished products. Global supply chains, which were previously resilient against disruptions, have been compromised. This article investigates the impact of COVID-19 on supply chains and proposes ways to mitigate risks and enhance resilience. The study found that COVID-19 has affected supply chains in various sectors such as pharmaceuticals, food, electronics, and automotive industry. Unlike previous disruptions, COVID-19 has impacted all stages of supply chains with major disruptions in manufacturing, transport, logistics, and changes in demand. The analysis suggests that improving supply chain resilience is crucial in reducing vulnerability during disruptive times. Additionally, post-COVID-19 supply chains are expected to be shorter with a focus on relocations and back-shoring strategies (El Omri, A. 2020). Logistics companies play a crucial role in connecting businesses to markets by providing various services like transportation, warehousing, and inventory management. They are particularly important for global manufacturing, which involves complex supply chains with components sourced from multiple countries. To ensure the smooth flow of goods, companies often outsource their logistics functions to third-party providers with integrated solutions. The performance of the logistics sector has a direct impact on

productivity and economic development, with higher incomes associated with better logistics performance. However, the cost of logistics can be higher in developing economies compared to developed ones. Therefore, improving efficiency in the logistics sector can enhance competitiveness and stimulate economic growth in emerging markets. Twinn, C. I.

(2020). This paper looks at how the COVID-19 pandemic has affected supply chain operations and how companies have responded to the crisis. It also looks into whether smaller businesses have been hit harder by the supply chain issues caused by COVID-19 (Min, H. 2023). The Coronavirus pandemic has caused disruptions in supply chains worldwide, and these disruptions are expected to continue indefinitely. This study analyzes the impact of the pandemic on supply chains, including the challenges and trends that have emerged. It presents a framework for understanding the relationship between supply chains and COVID-19, which can be useful for decision-makers and researchers in various industries. The study also discusses its limitations and suggests directions for future research (Magableh, G. M. 2021).

3. OBJECTIVES

1. To assess the impact of the COVID-19 pandemic on global supply chains.
2. To understand the challenges faced by logistics operations in meeting delivery deadlines during the pandemic.
3. To understand the challenges faced by logistics operations in meeting delivery deadlines during the pandemic.
4. To explore the importance of social responsibility for logistics companies in the wake of the pandemic.

4. RESEARCH METHODOLOGY

The research methodology analyzes 100 survey responses on the Impact of the COVID-19 pandemic on the logistics and supply chain industry. A mixed methods approach combines quantitative analysis to explore trends and patterns in survey data and qualitative analysis to extract insights from open-ended responses. The results provide a comprehensive overview of the impact of the pandemic on the industry.

5. DATA ANALYSIS AND INTERPRETATION

This section presents a comprehensive analysis and interpretation of the survey responses related to the impact of the COVID-19 pandemic on various aspects of supply chains and logistics operations. The data collected from the respondents is examined and contextualized to provide insights into the significance of disruptions, challenges, and changes observed during the pandemic. The data highlights the urgency of adapting supply chain strategies, enhancing resilience, and embracing innovative approaches to navigate the challenges posed by the ongoing crisis.

❖ Has there been an increased reliance on e-commerce and online ordering due to the pandemic?

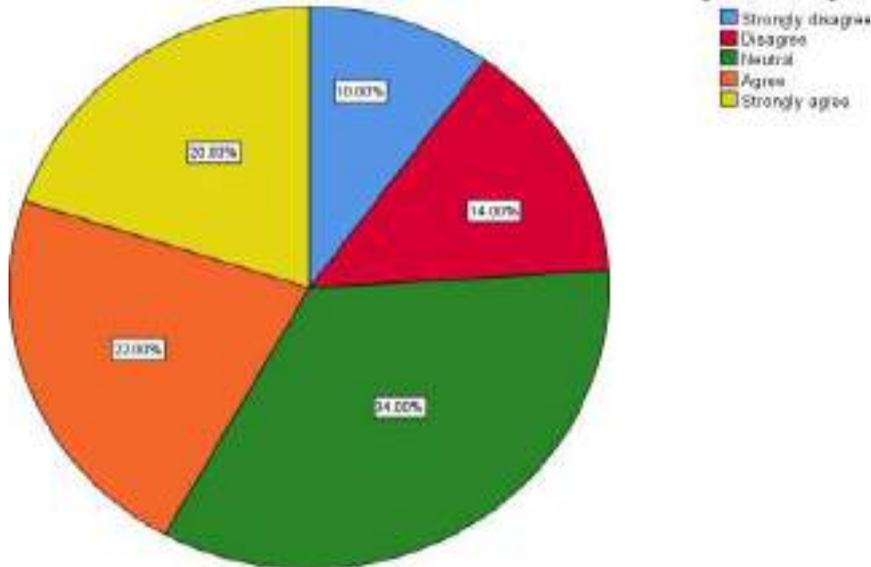


Chart 1

The data shows that a significant number of respondents acknowledge the pandemic's increased reliance on e-commerce and online ordering. With 42% agreeing and only 24% disagreeing, it seems that the pandemic has indeed

caused a significant shift towards using e-commerce platforms to purchase goods and services.

❖ To what extent have logistics operations faced challenges in meeting delivery deadlines during the pandemic?

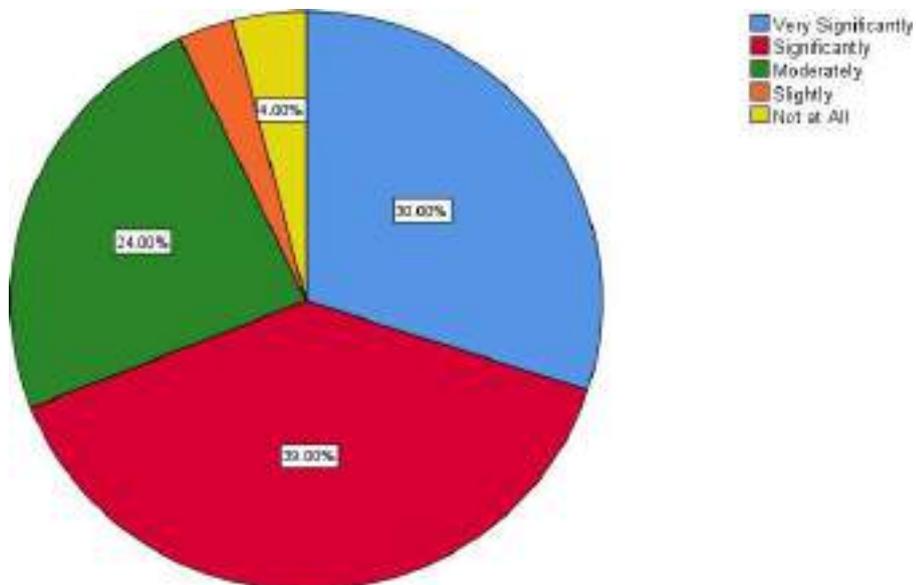


Chart 2

The data shows that a significant number of respondents had difficulty meeting delivery times during the pandemic. With 69% reporting significant challenges and 24% adding some

challenges, it is clear that the majority of respondents experienced disruptions in logistics operations that affected their ability to meet delivery schedules.

❖ How significantly has the COVID-19 pandemic disrupted global supply chains?

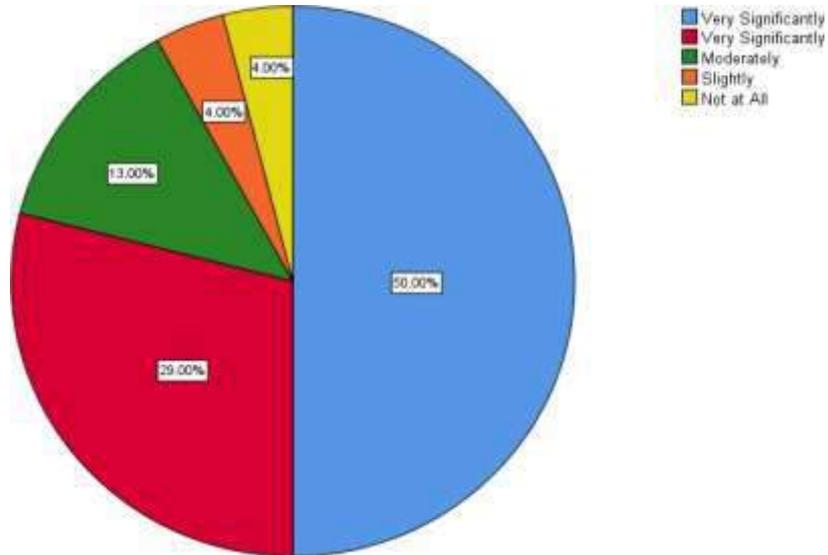


Chart 3

The data provides significant insight into the disruptions to global supply chains caused by the COVID-19 pandemic. Approximately 79% of respondents consider the disruption significant, and a significant 50% report very extensive

disruption. This indicates that the significant impact of the pandemic on global supply chain operations is widely recognized.

❖ How much have border restrictions and lockdowns caused delays in the movement of goods?

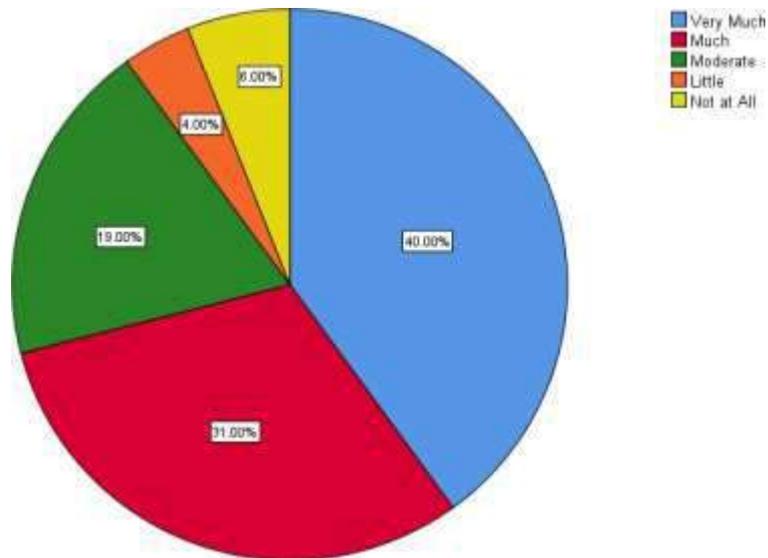


Chart 4

The data shows that a significant number of respondents have seen significant delays in the movement of goods due to border

restrictions and closures. About 71 percent of participants admit to major delays, indicating that most have experienced major disruptions in the movement of goods.

❖ To what degree has the pandemic led to a shortage of essential goods and materials?

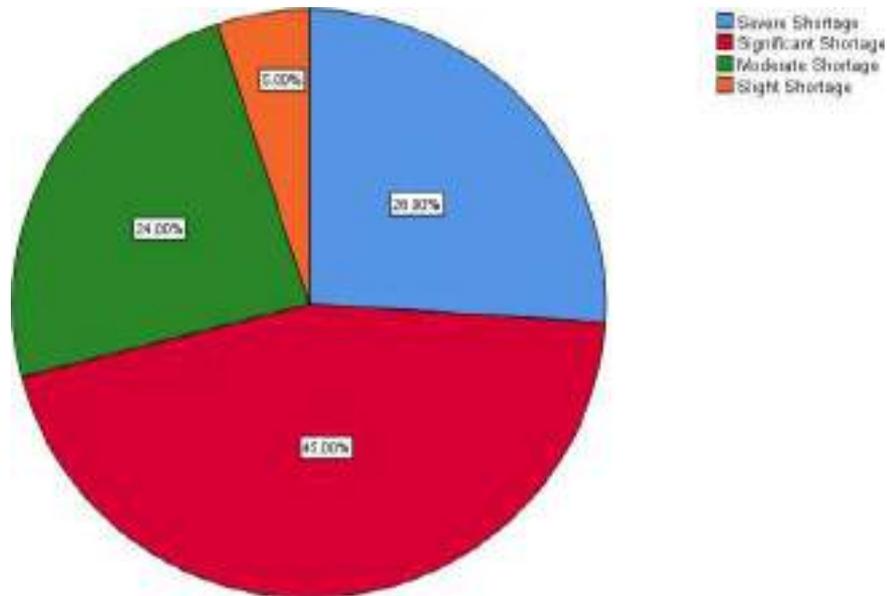


Chart 5

The survey results show that the pandemic is significantly affecting the availability of essential goods and materials - 71% of respondents reported a serious or severe shortage. The data

highlights the far-reaching consequences of the pandemic, with nearly three-quarters of participants reporting significant challenges in securing essential supplies.

❖ How extensively have companies implemented new safety measures and protocols to protect workers in warehouses and distribution centers?

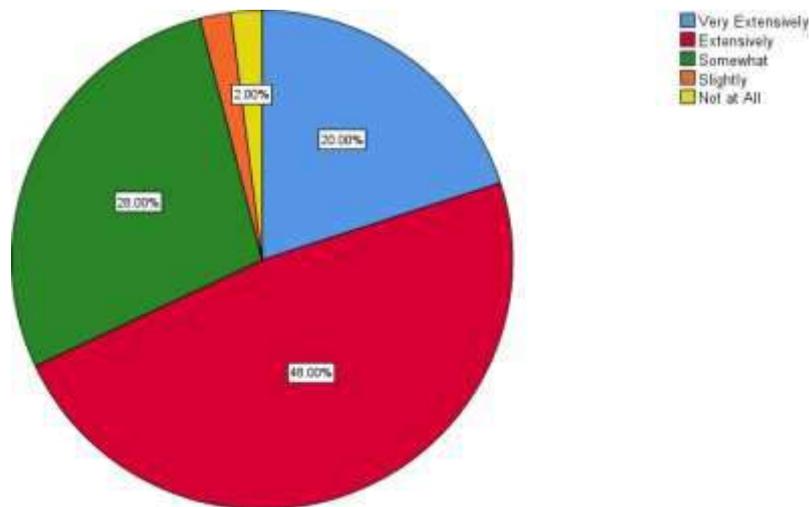


Chart 6

The data indicates that a significant portion of companies have taken substantial measures to ensure worker safety in warehouses and distribution centers during the pandemic. With 68% of respondents (Very Extensively + Extensively) reporting

extensive implementation, and an additional 28% indicating a somewhat proactive approach, it suggests that a large majority of companies have made notable efforts to protect their workers by adopting new safety measures and protocols.

❖ To what extent has the pandemic accelerated the adoption of digital technologies in the logistics industry?

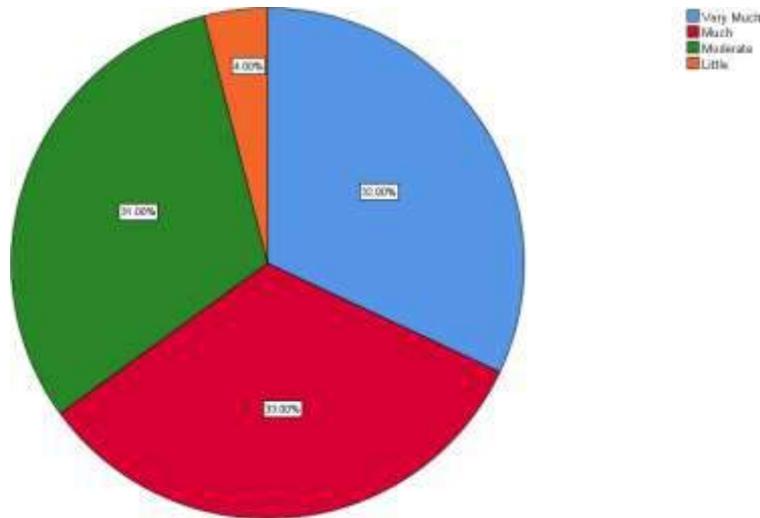


Chart 7

The data highlights the significant impact of the pandemic on accelerating the adoption of digital technologies in the logistics industry. Together, 65 percent of respondents report a significant increase in the integration of digital technologies,

with an additional 31 percent reporting moderate change. These data suggest that the pandemic has been a catalyst for significant and widespread adoption of digital technology in the logistics industry.

❖ How significantly have transportation costs increased due to pandemic-related challenges?

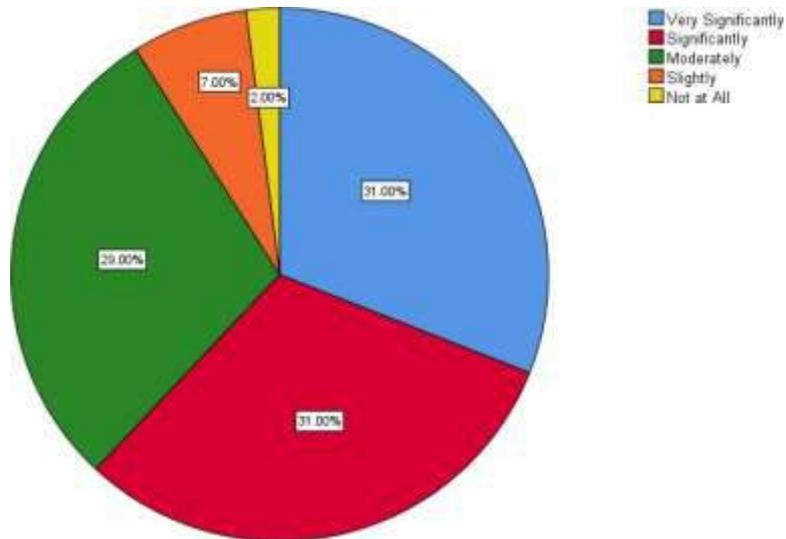


Chart 8

The data shows that a significant majority of respondents experienced a significant increase in transportation costs due to challenges related to the pandemic. About 62% of respondents experience a major impact, while 29% add a moderate increase.

This suggests that the majority of survey respondents observed a significant increase in transport costs due to the impact of the pandemic on the industry.



6. FINDINGS

The data was gathered via a survey method, and 100 internet-savvy respondents were polled using a questionnaire as a tool. The questionnaire consisted of a set of questions about the respondents' experience with the logistics and supply chain industry during the COVID-19 pandemic. The findings of the survey showed that the pandemic had a significant impact on the logistics and supply chain industry.

- **Disruption of global supply chains:** The pandemic has significantly disrupted global supply chains, causing factory closures, transport restrictions and labour shortages. Organizations that rely heavily on single-source suppliers or remote manufacturing centres experienced the most severe disruptions, highlighting the need to diversify and increase resilience in supply chain networks.
- **Growing importance of digital technologies:** Research shows increased adoption of digital technologies to improve supply chain visibility, agility and risk management. Real-time monitoring, data analysis and AI-based demand forecasting emerged as organizations sought to navigate uncertainty and optimize their operations remotely.
- **Accelerated growth of e-commerce:** Demand for e-commerce has grown rapidly as lockdowns and social distancing have limited traditional retail options. Warehousing and last-mile delivery operations have been reconfigured to accommodate increased online orders, spurring innovations in contactless delivery methods and demand forecasting models.
- **Inventory management and demand fluctuation:** Research has shown that fluctuations in demand and disruptions in supply have led to challenges in inventory management. Organizations have struggled to balance inventory, with critical product shortages in some sectors and excess inventory in others, underscoring the importance of accurate demand forecasting and inventory optimization.
- **Resilience and risk reduction:** The crisis highlighted the importance of supply chain resilience and risk management strategies. Companies have noticed the need to increase layoffs, develop contingency plans and assess vulnerabilities in their supply chains to better prepare for future disruptions.
- **Impact on sustainability:** While immediate emergency management was paramount, efforts to maintain supply chains were affected. The focus shifted to short-term survival, which could delay or alter long-term sustainability initiatives.
- **Lessons for future preparation:** The results of study highlight the importance of scenario planning, continuous monitoring and flexibility in supply chain strategies. Experiences from the pandemic are expected to inform future unforeseen disruptions.
- **Change consumer behaviour:** Consumer behaviour has changed during the pandemic, affecting demand patterns and preferences. Supply chains have had to adapt to

changes in consumer buying habits, such as an increase in online shopping, changing product preferences and a focus on essential products.

7. CONCLUSION

In conclusion, the COVID-19 pandemic has ushered in an era of unprecedented challenges and changes in the logistics and supply chain industry. The results of many studies have illuminated the profound effects of the crisis and highlighted both vulnerabilities and opportunities in global supply chains. As supply chain professionals grappled with disruption and uncertainty, several important considerations emerged that highlight the industry's flexibility and adaptability. The pandemic has exposed the fragility of complex globalized supply chains, prompting organizations to reassess their strategies and prioritize sustainability. Disruptions in production, transportation, and labour availability highlighted the risks associated with too many single-source suppliers and remote manufacturing centres. In response, a shift to diversification, regionalization, and dual sourcing emerged as a strategy to mitigate future disruption.

Essentially, the COVID-19 pandemic has been a catalyst for change in the logistics and supply chain industry. Challenges and disruptions have spurred innovation, collaboration and a new commitment to building sustainable and responsive supply chains. While the road to recovery remains dynamic and difficult, the industry's response to the crisis has highlighted its ability to change and adapt. As organizations continue to navigate the changing landscape, the lessons learned from the crisis will undoubtedly drive the evolution of supply chain strategies, promoting a more resilient, agile and future-proof industry.

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A RESEARCH STUDY ON IMPACT OF FASTGROWING HYPERMARKETS ON THE SMALL SCALE BUSINESS

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ABSTRACT

The rapid growth of modern organized retail in India contrasts starkly with the persistently dominant unorganized retail sector, which constitutes around 80% of the country's retail trade. This study investigates the effects of this dynamic on small retailers, shedding light on the changes, challenges, and strategies faced by such businesses. Focusing on Mangalore, a rapidly developing city in Karnataka, the research examines how organized retail, specifically supermarkets, impacts local unorganized small businesses. Employing a Random Sampling Method, various retail formats are studied, employing a SWOT analysis framework via a structured questionnaire. The study's findings underscore that supermarkets in the targeted region indeed exert detrimental effects on various types of unorganized retail businesses, resulting in job losses. Furthermore, the study uncovers the driving factors behind supermarket expansion from the vantage point of small businesses.

Methodology: Through Random Sampling, diverse retail formats are included. A structured questionnaire underpins the SWOT analysis framework, providing a comprehensive understanding of both sectors' strategies and business plans. The goal is to facilitate the survival of small businesses by offering valuable insights and techniques, bolstered by rigorous statistical analytics and research.

Findings: The research establishes that supermarkets' growth in the selected Indian suburban region negatively impacts unorganized retail businesses across the spectrum. Additionally, the expansion of supermarkets directly contributes to job losses in small retail enterprises. Small businesses' perspectives shed light on the principal driver propelling the supermarket boom. The study unveils the strategies and plans employed by supermarkets, which in turn informs suggestions to enhance strategies for small businesses. It also offers a systematic approach to customer engagement, emphasizing product quality.

Originality: This research tackles contemporary market challenges faced by small businesses with a robust foundation of data and empirical evidence. By employing statistical analytics and a comprehensive research approach, the study provides unique insights into the coexistence of organized and unorganized retail sectors, contributing to the ongoing discourse on retail market dynamics.

Paper type: Research paper is based on statistical analytics and research.

KEYWORDS: Retail Market, Organized Retail, Unorganized Retail, Supermarkets, Small Businesses, Impact Analysis, SWOT Analysis, Business Strategies, Customer Engagement, Market Dynamics.

1. INTRODUCTION

The retail landscape in India has been reshaped by the rapid proliferation of hypermarkets, a phenomenon that has gained momentum over the past decade. Hypermarkets, characterized by their expansive product offerings, competitive pricing, and enhanced shopping experiences, have witnessed remarkable growth since the mid-2000s (Bhattacharya, 2017). This research study aims to explore the far-reaching implications of these swiftly expanding hypermarkets on small-scale businesses, which have been the traditional backbone of the Indian retail sector. As hypermarkets continue to expand their footprint, questions arise regarding the survival and

competitiveness of small-scale enterprises (Iyer et al., 2018). Through a comprehensive examination of market trends, consumer behaviors, and economic repercussions, this study seeks to unravel the challenges and opportunities presented to small-scale businesses by the ascent of hypermarkets. By merging empirical data and qualitative insights, this research endeavors to provide a holistic understanding of the intricate dynamics between hypermarkets and small-scale enterprises in the evolving Indian retail landscape.

ELEMENT OF A SMALL BUSINESS FIRM

While consumers might not distinguish between a grocery shop



and a supermarket, the industry draws a clear line between the two. A grocery store exclusively offers food and beverage products, catering to essential consumer needs such as canned goods, dry foods, spices, fruits, and vegetables. In the past, patrons of these classic grocery establishments would furnish lists to store personnel, who would then gather and deliver the requested items. Presently, several traditional grocery stores continue to offer a range of comestibles, but their inventory might not encompass more specialized selections like vegan or gluten-free alternatives.

ELEMENTS OF A MODERN HYPERMARKET

The demarcation between a supermarket and a superstore is seamlessly blended in the concept of a hypermarket. Hypermarkets often referred to as superstores, embody the fusion of supermarket and department store attributes. These expansive retail establishments cater to a diverse spectrum of consumer desires by offering an extensive array of products, encompassing food, clothing, hardware, and electronics. A notable example of a hypermarket is Target, wherein shoppers can procure a wide range of items including foodstuffs, apparel, electronics, books, toys, and even furniture. Hypermarkets prioritize bulk sales, offering substantial discounts on their comprehensive product selection. A prominent illustration of a hypermarket is Costco, exemplifying the integration of various product categories under one roof.

DIFFERENCES BETWEEN A GROCERY SHOP AND A HYPERMARKET

Distinguishing between supermarkets and grocery stores is essential. Grocery stores tailor their product orders according to demand, while hypermarkets adopt a bulk ordering approach, aiming to maintain constant overstock. Typically, grocery stores focus solely on food and beverages and are characterized by their compact size. Hypermarkets, in contrast, stand out due to their vast size, often being three to four times larger than grocery stores. These expansive retail spaces encompass both supermarket offerings and higher-end products

like appliances. Notably, hypermarkets frequently operate as part of prominent chains, resulting in relatively higher profit margins due to economies of scale. Conversely, grocery stores, often operating independently, face higher prices due to their comparatively lower business volume. The physical ambiance also underscores the distinction: hypermarkets like Costco often present a warehouse-like layout, while supermarkets prioritize a cozy and inviting atmosphere to attract customers.

2. REVIEW OF LITRETURE

The literature review highlights a prevalent focus on the ramifications of organized retail's growth on the unorganized retail sector in India. Numerous studies have consistently indicated the potential impact on small unorganized retail establishments, barring findings from government-sponsored research. As a diligent researcher, it becomes imperative to critically examine the validity of this standpoint. Nevertheless, a comprehensive assessment of the applicability of the organized retail phenomenon across the entirety of India remains unexplored. In light of this research gap, our study endeavours to shed light specifically on the impact of organized retail.

While existing studies shed valuable insights on the probable consequences of organized retail expansion, they also underscore the need for a more nuanced investigation. The multifaceted nature of the Indian retail landscape, coupled with regional variations, warrants a closer examination of the extent to which organized retail's impact extends. By focusing our research on the specific dynamics of organized retail's influence, we aim to contribute a deeper understanding of its implications within the Indian context. This study's findings could potentially provide a more comprehensive perspective on the organized retail phenomenon and its implications for various retail formats, thereby enriching the on-going discourse on this transformative trend.

SL. NO.	RESEARCH TOPIC	FOCUSED AREA	REFERENCE
1	Supermarket revolution in a developing country	Supermarket, supplies	Reardon, Thomas, C. Peter Timmer, and BartMinten (2012)[1]
2	Dietary Implications of Supermarket Development: A Global Perspective	Implications of hypermarkets small store	Hawkes, Corinna. (2008) [2]
3	Moderating effect of customer's retail format perception on customer satisfaction formation: An empirical study of mini-hypermarkets in an urban retail market setting	Urban retail, Customer satisfaction Store attributes Customers' retail format perception	Yokoyama, Narimasa, Nobukazu Azuma, and WoonhoKim.(2022) [3]
4	Hypermarkets versus traditional retail stores— consumers' and retailers' perspectives in Braga: a case study.	Traditional retail, history of hypermarkets	Farhangmehr, Minoo, Susana Marques, and Joaquim Silva. (2001) [4]
5	Assessing the impact of short-term supermarket strategy variables.,	Supermarket product, pricing strategies	Wilkinson, Judy B., J. Barry Mason, and Christie H. Paksoy. (1982) [5]
6	Competition and product quality in the supermarket industry.	Inventory, shortfall of inventory	Matsa, David A. (2011)[6]



7	Factors associated with supermarket and convenience store closure: a discrete-time spatial survival modeling approach.	Survival strategies, Modern strategy's approach	Warren, Joshua L., and Penny Gordon-Larsen. (2018) [7]
8	The impact of pricing policy on sales variability in a supermarket retail context.	Bullwhip effect Pricing Supply chain Management Retail industry	Hamister, James W., and Nallan C. Suresh. (2008) [8]
9	Competitive strategies for unorganized retail business: understanding structure, operations, and profitability of small mom-and-pop stores in India.	Retailing in India, Unorganized Retailing, Retail Strategy, Promotion in Retail, Small Scale Retailing, Retail Culture.	Sangvikar, Balkrishnn, Ashutosh Kolte, and Avinash Pawar. (2019) [9]
10	A study on the effects of super-supermarket service quality on satisfaction in-store selection	Services level, revisit intention, hypermarkets	Kim, Gyeong-Cho (2013) [10]

3. OBJECTIVES

1. To assess consumer awareness and familiarity with fast-growing hypermarkets and their prevalence within the retail landscape.
2. To investigate the shopping frequency and habits of consumers at fast-growing hypermarkets and understand the extent of their engagement.
3. To examine the perception of consumers regarding the impact of fast-growing hypermarkets on local small-scale businesses and identify instances of observed effects.
4. To analyse consumer preferences and factors influencing their inclination towards fast-growing hypermarkets over small-scale businesses, focusing on attributes such as product selection, pricing, convenience, shopping experience, and promotional offerings.
5. To evaluate the perceived consequences of fast-growing hypermarkets on small-scale businesses, encompassing changes in product availability, competitive strategies, pricing dynamics, customer service, collaboration, and potential closures.

4. RESEARCH METHODOLOGY

As a vital component of this research study focused on understanding the impact of fast-growing hypermarkets on small-scale businesses, a survey methodology was employed to systematically gather relevant information. Participants were

engaged through a standardized questionnaire designed to capture essential data points. Leveraging the user-friendly and widely used web tool, Google Forms, the survey was conducted.

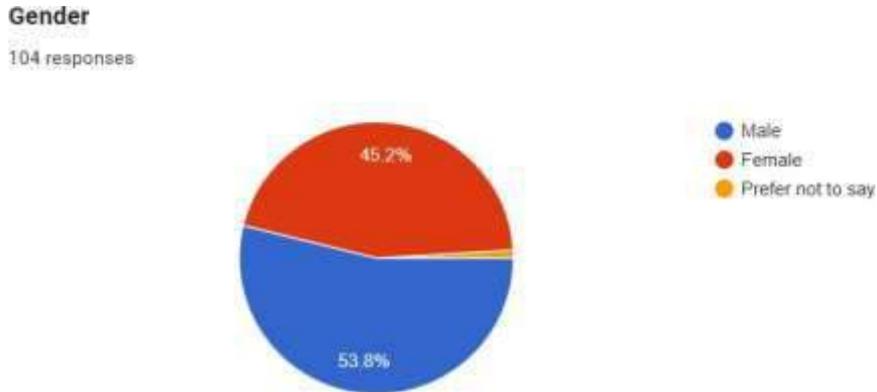
The overarching goal of the survey was to garner 104 meaningful responses from a diverse participant pool encompassing consumers, professionals within the retail sector, and individuals specializing in sustainable development. Employing a combination of closed-ended and Likert-scale questions, the questionnaire aimed to gauge perceptions, attitudes, and preferences concerning the influence of fast-growing hypermarkets on small businesses.

To ensure robust data representation, the survey was disseminated through various channels such as email invitations, social media platforms, and pertinent online forums. Upholding confidentiality and securing informed consent, participants' anonymity was preserved. During the stipulated survey period, a total of 104 valid responses were collected, contributing to a comprehensive dataset.

Upon data collection, a pie chart was generated to visually present the findings, facilitating the derivation of insightful conclusions. This survey-based approach underscores the commitment to comprehensively exploring the impact of fast-growing hypermarkets on small-scale businesses, benefiting from the diversity of perspectives brought forth by the participants.

5. DATA ANALYSIS

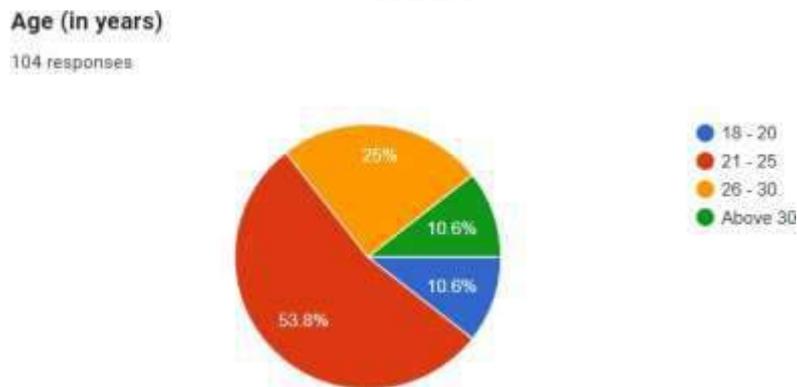
GRAPH 1



The pie chart illustrates the gender distribution of participants in the research study on the impact of fast-growing hypermarkets on small-scale businesses. It is evident that the male respondents comprise a slightly higher percentage at 53.8%, while females constitute 45.2% of the participants. Interestingly, a marginal 1% of participants did not disclose

their gender. This distribution suggests a relatively balanced representation between genders, providing a comprehensive basis for analysing and interpreting the study's findings across diverse perspectives, enhancing the robustness and validity of the research outcomes.

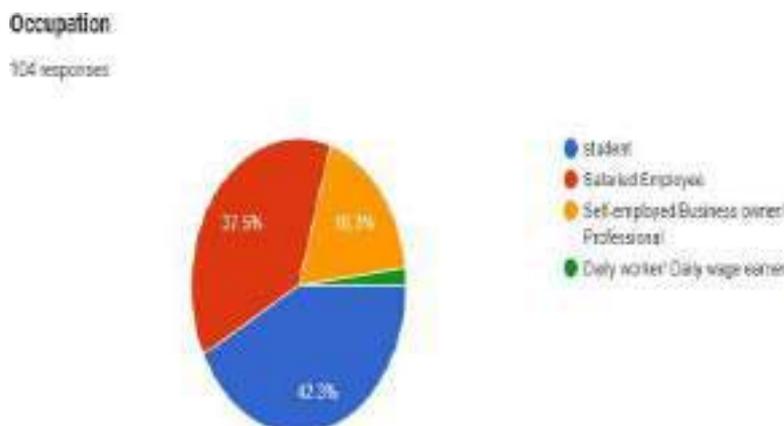
GRAPH 2



Within the context of the research study investigating the impact of fast-growing hypermarkets on small-scale businesses, the pie chart provides a snapshot of the age distribution among the 104 respondents. Evidently, a significant majority, comprising 53.8%, fall within the age bracket of 21 to 25, closely followed by a quarter of respondents

aged between 18 and 20. Intriguingly, a minority, specifically 10.6%, falls beyond the age of 30. This distribution strongly implies that the survey predominantly engaged young adults, accentuating the study's focus on capturing insights primarily from this dynamic demographic segment.

GRAPH 3

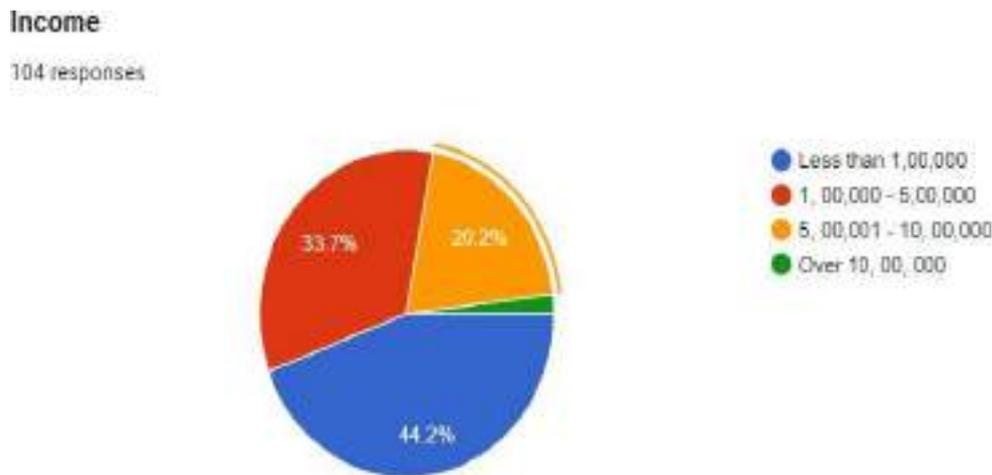


The provided pie chart offers a visual representation of the occupational distribution within the scope of the research study exploring the influence of fast-growing hypermarkets on small-scale businesses. The data reveals that the largest contingent, constituting 37.5% of respondents, identifies as employees.

Subsequently, salaried employees and self-employed/business owners each account for 18.3% of participants. Notably, a

significant proportion, specifically 25.9%, represents daily workers/daily wage earners. This occupational profile underscores the diverse range of perspectives incorporated into the study, with a notable focus on students and workers in various sectors, enriching the comprehensive insights derived from the research endeavour.

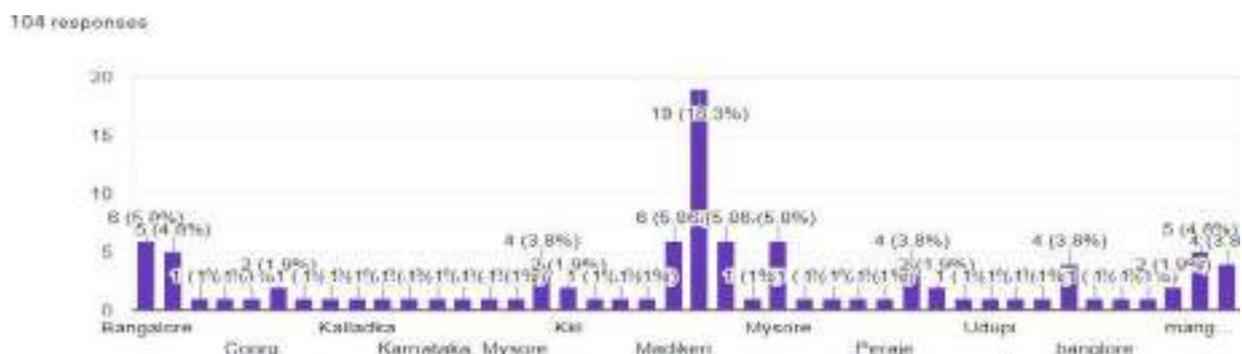
GRAPH 4



This research scrutinizes the influence of rapidly expanding hypermarkets on small-scale enterprises within distinct income brackets. With 44% earning less than 1,00,000, hypermarkets wield a pronounced impact, intensifying competition. Among 33% earning between 1,00,000 to 5,00,000, businesses navigate challenges while leveraging personalized services. The 20% in the 5,00,000 to 10,00,000 range display resilience

through niche offerings. The elite 1% earning beyond 10,00,000 exhibit minimal vulnerability due to specialized products. Overall, as hypermarkets surge, lower income tiers face the greatest threats, necessitating innovative strategies, while higher tiers find ways to sustain through differentiation and distinctive value propositions.

GRAPH 5



This research delves into the effects of rapidly expanding hypermarkets on small-scale businesses. The survey, primarily conducted in Mangalore (with a majority representation of 19%) and Bangalore (constituting 5.8%), highlights insightful patterns. Small-scale businesses in Mangalore appear notably impacted by hypermarket growth, reflecting the evolving dynamics of the retail landscape. Similarly, while representing

a smaller portion, businesses in Bangalore also experience a discernible influence.

These findings emphasize the varying degrees of impact in distinct locations and underscore the need for location-specific strategies to navigate challenges and seize opportunities posed by the rise of hypermarkets.

GRAPH 6

1. How familiar are you with fast-growing hypermarkets?

104 responses



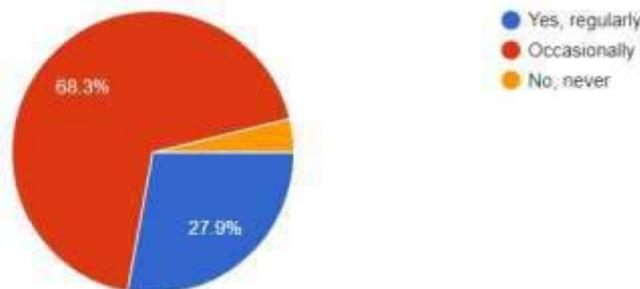
This research evaluates familiarity with fast-growing hypermarkets and their impact on small-scale businesses. Results indicate that a significant portion, 44.2%, is well-versed in this context, indicating an awareness of the dynamic retail landscape. Notably, 51% possess a moderate level of familiarity, reflecting a general understanding. However, a small fraction, 5%, lacks awareness. These findings underscore

the relevance of disseminating information about hypermarkets' influence, particularly to the uninformed segment. Heightened awareness among 44.2% suggests that the concept is pervasive and possibly influencing opinions and decisions, emphasizing the importance of studying their implications on small-scale enterprises comprehensively.

GRAPH 6

Do you frequently shop at fast-growing hypermarkets?

104 responses



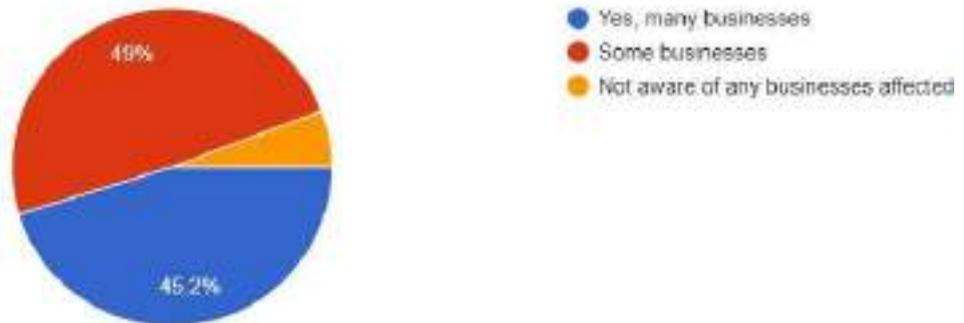
In the context of the research study on the impact of fast-growing hypermarkets on small-scale businesses, it's revealed that a substantial portion, 68.3%, shops at these hypermarkets occasionally. This suggests a prevalent trend of intermittent patronage, potentially driven by convenience and variety. Furthermore, 27.9% of respondents shop at these hypermarkets

regularly, underscoring a significant and consistent customer base. Conversely, a smaller fraction, 3.8%, abstains from shopping at hypermarkets entirely. These results highlight the relevance of hypermarkets in consumers' shopping routines and affirm their role in shaping the market dynamics for small-scale businesses.

GRAPH 7

3. Are you aware of any small-scale businesses in your area that have been affected by the presence of fast-growing hypermarkets?

104 responses



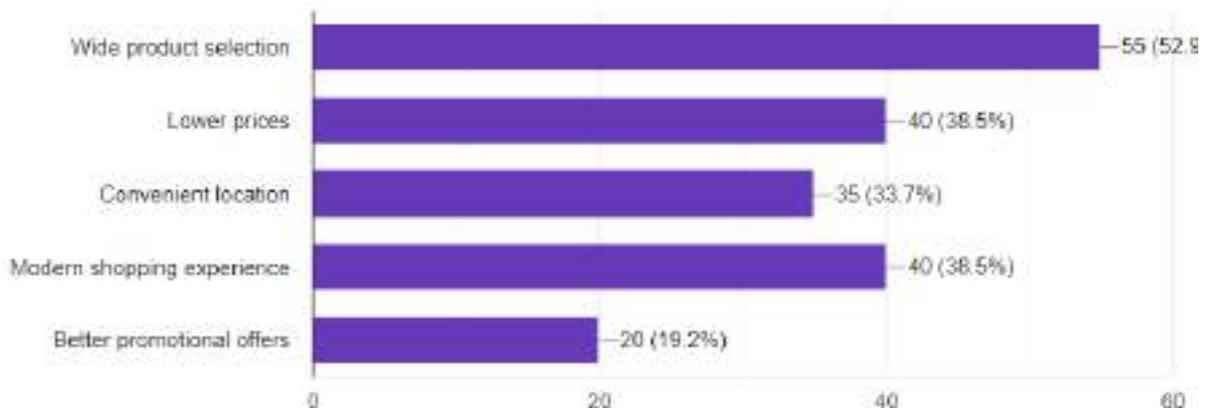
In the context of local businesses and the influence of fast-growing hypermarkets, the findings show that 45.2% of respondents are well aware of many small-scale businesses that have been impacted by the presence of these hypermarkets. Another significant portion, 49%, acknowledges the effect on some businesses in the area. However, a smaller fraction, 5.8%, remains unaware of any businesses affected. These results

highlight the widespread awareness of the impact of hypermarkets on local businesses, underscoring the need for strategies to address the challenges posed by this dynamic market shift.

GRAPH 8

4. In your opinion, what factors make fast-growing hypermarkets more attractive to consumers compared to small-scale businesses? (Select all that apply)

104 responses



From the perspective of consumer preferences, the appeal of fast-growing hypermarkets over small-scale businesses is multifaceted. A significant factor, noted by 52.9% of respondents, is the extensive range of products that hypermarkets offer. This wide variety caters to diverse needs in a single location. Additionally, the allure of lower prices resonates with 38.5%, emphasizing cost-effectiveness. Convenience is also a driving factor, with 33.7% appreciating

hypermarkets' strategic locations. Modern shopping experiences, mentioned by 38.5%, contribute to their attraction. Lastly, 19.2% find hypermarkets' promotional offers more enticing. These factors collectively underline the competitive strengths that hypermarkets hold in capturing consumer attention and loyalty.

GRAPH 9

Have you noticed a change in the availability of locally sourced products due to the growth of fast-growing hypermarkets?

104 responses



In the context of the impact of fast-growing hypermarkets on locally sourced products, the findings indicate noticeable changes. A significant proportion, 42.3%, observes a significant reduction in the availability of locally sourced products, highlighting the potential challenge these hypermarkets pose to local producers. Additionally, 50% note

a somewhat reduced availability, suggesting a discernible effect on local sourcing. Conversely, a smaller percentage, 7.7%, perceives no noticeable change in this aspect. These results underline the potential implications of hypermarket growth on the availability and visibility of locally produced goods, which may have broader economic and community ramifications.

GRAPH 10

6. How often do you prefer shopping at small-scale businesses over fast-growing hypermarkets?

104 responses



Frequent shopping preferences reveal a diverse trend. While 60.6% consistently lean towards small-scale businesses, 30.8% always prioritize them. A smaller fraction, 8.7%, shows

occasional inclination or none at all. These results emphasize the varying consumer choices in opting for either local or hypermarket shopping experiences.

GRAPH 11

7. Do you believe small-scale businesses offer unique products or services that fast-growing hypermarkets do not provide?

104 responses



Perceptions on unique offerings from small-scale businesses vary. While 40.4% firmly believe they consistently provide distinctive products/services, 51.9% view it as occasional.

Conversely, 7.7% see no notable differentiation. These opinions underscore the potential competitive edge of local businesses in catering to niche needs and preferences.

GRAPH 12

8. Has the presence of fast-growing hypermarkets impacted the pricing of goods and services in your area?

104 responses



The presence of fast-growing hypermarkets has led to pricing dynamics in the area. For 60.6%, increased competition has prompted lower prices, reflecting their influence. Conversely,

31.7% note a general lowering of prices. However, 7.7% perceive no change, indicating varied impacts on the pricing landscape due to hypermarket growth.

GRAPH 13

How often do you seek personalized customer service when shopping?

104 responses



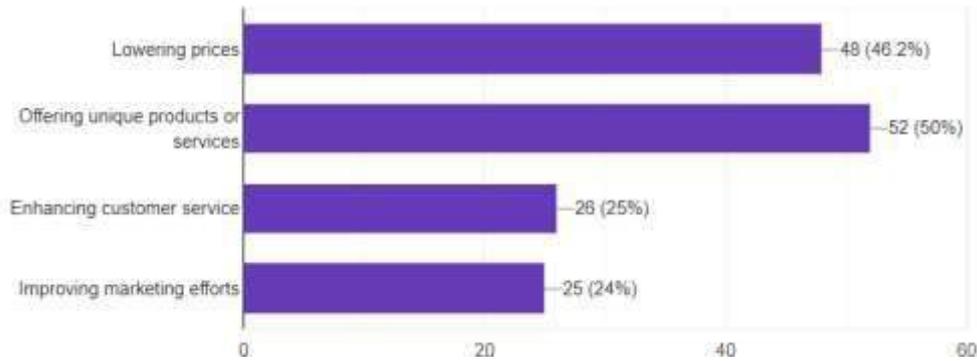
Consumer preferences for personalized service during shopping vary. While 55.8% occasionally seek personalized assistance, 27.9% consistently prioritize it. Conversely, 16.3% rarely or

never actively pursue such services. These findings highlight the diverse spectrum of consumer interactions and expectations in the retail experience.

GRAPH 14

10. Have you noticed any small-scale businesses adapting their strategies to compete with fast-growing hypermarkets? (Select all that apply)

104 responses



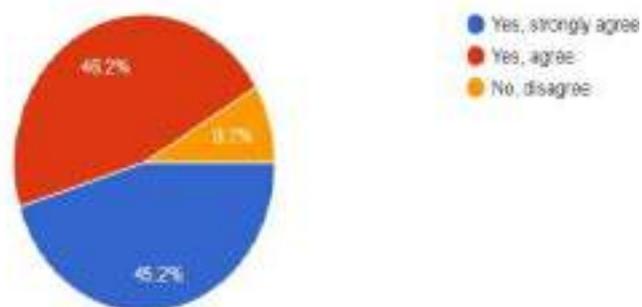
In response to fast-growing hypermarkets, noticeable adaptations by small-scale businesses include: 50% focusing on unique products/services to differentiate, 46.2% lowering prices to remain competitive.

Additionally, 25% prioritize enhanced customer service, aiming for a personalized touch, while 24% seek to bolster marketing efforts. These strategies reflect dynamic responses to the challenges posed by hypermarket expansion, indicating a multifaceted approach to preserve and enhance market presence.

GRAPH 15

11. Do you think local authorities should take measures to support and protect small-scale businesses from the competition of fast-growing hypermarkets?

104 responses



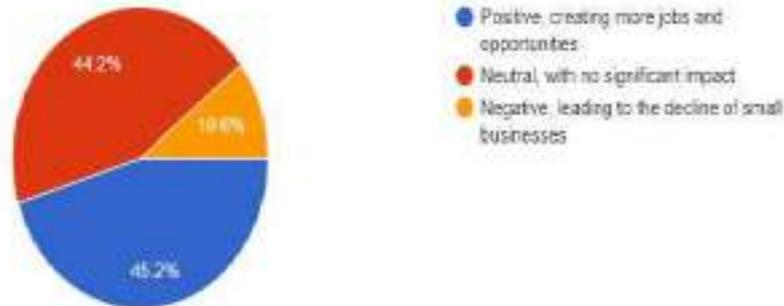
Opinions on local authority intervention regarding small-scale businesses and fast-growing hypermarkets differ. While 45.2% strongly agree that such support is essential, 46.2% express agreement. Conversely, 8.7% disagree with the need for such measures. These responses reflect a balanced consideration of

the role local authorities might play in fostering a conducive environment for both business types amidst evolving market dynamics.

GRAPH 16

12. How do you perceive the overall impact of fast-growing hypermarkets on the local economy?

104 responses



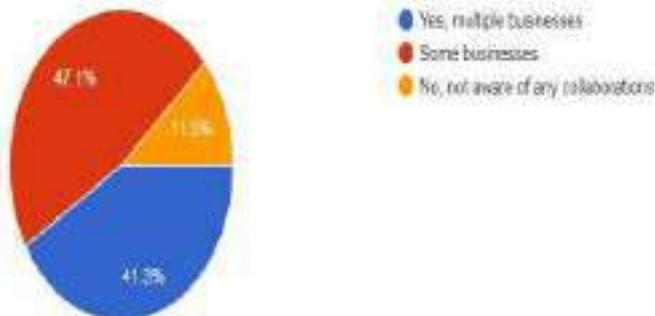
Perceptions of fast-growing hypermarkets' impact on the local economy vary. While 45.2% view them positively, recognizing job and opportunity creation, 44.2% remain neutral, perceiving no significant influence. Conversely, 10.6% hold negative

views, citing potential small business decline. These perspectives reflect a range of opinions on the complex economic effects stemming from the rise of hypermarkets in the local context.

GRAPH 17

13. Have you witnessed any small-scale businesses collaborating with fast-growing hypermarkets to benefit each other?

104 responses



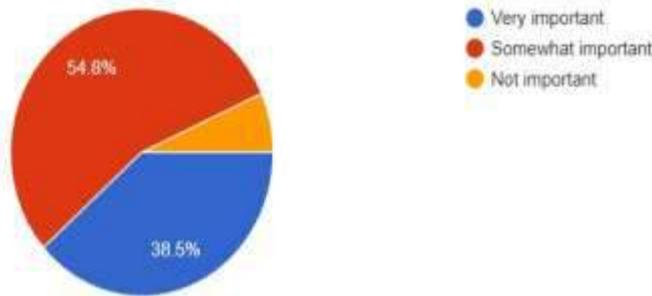
Collaboration between small-scale businesses and fast-growing hypermarkets has been observed. Of respondents, 41.3% note multiple instances of such collaborations, while 47.1% cite several instances. A smaller proportion, 11.5%, remains

unaware of any such collaboration. These findings suggest a willingness among some businesses to explore partnerships that could mutually leverage strengths and foster symbiotic growth in the evolving retail landscape.

GRAPH 18

14. How important is it for you to buy locally sourced products from small-scale businesses?

104 responses



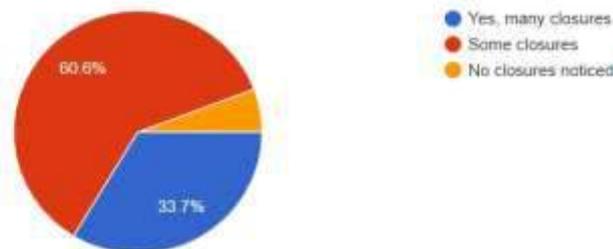
The significance of purchasing locally sourced products from small-scale businesses varies among respondents. While 38.5% consider it very important, 54.8% perceive it as somewhat important. A smaller fraction, 6.7%, does not prioritize buying

locally sourced products. These attitudes underline the varying degrees of value placed on supporting local enterprises and economies through consumer choices.

GRAPH 19

15. Have you seen an increase in the number of small-scale businesses closing down in your area due to competition from fast-growing hypermarkets?

104 responses



The impact of fast-growing hypermarkets on small-scale businesses closing down varies. While 33.7% observe many closures due to hypermarket competition, 60.6% note some closures. A smaller percentage, 5.8%, has not noticed any

closures. These findings highlight the influence of hypermarkets on local business dynamics, potentially necessitating measures to mitigate closures and sustain diverse commercial ecosystems.

GRAPH 20

16. How do fast-growing hypermarkets impact your overall shopping behaviour and choices?

104 responses



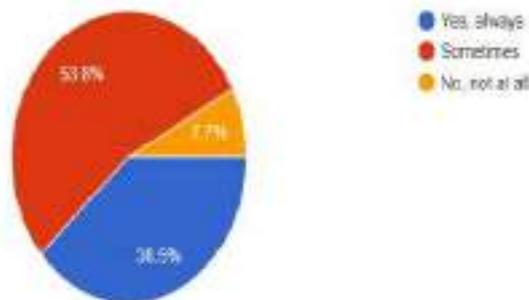


The influence of fast-growing hypermarkets on shopping behavior varies. While 58.7% strike a balance between hypermarkets and small-scale businesses, 32.7% frequently shop at hypermarkets. Conversely, 8.7% rarely or never

patronize hypermarkets. These patterns reflect a spectrum of consumer preferences, indicating that the coexistence of both types of businesses continues to shape individual shopping choices.

GRAPH 21
17. In your experience, do fast-growing hypermarkets offer better promotional offers than small-scale businesses?

104 responses

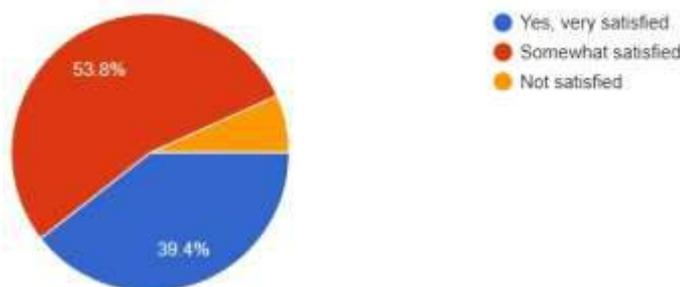


Experiences regarding promotional offers from fast-growing hypermarkets in comparison to small-scale businesses vary. While 53.8% note that hypermarkets occasionally provide better promotions, 38.5% perceive that they consistently offer

superior deals. Conversely, 7.7% do not find hypermarkets' offers to be more attractive. These observations reflect a mix of perceptions on the promotional strategies of both types of businesses.

GRAPH 22
18. Are you satisfied with the level of community engagement and support offered by small-scale businesses in your area?

104 responses



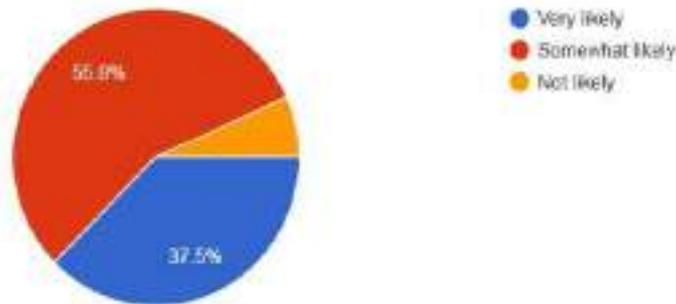
Satisfaction with community engagement and support from small-scale businesses varies. While 39.4% are very satisfied, 53.8% find themselves somewhat satisfied. Conversely, 6.7% express dissatisfaction. These sentiments suggest a generally

positive perception of small-scale businesses' efforts to engage and support their communities, but also indicate room for improvement in some cases.

GRAPH 23

19. How likely are you to recommend small-scale businesses to others over fast-growing hypermarkets?

104 responses



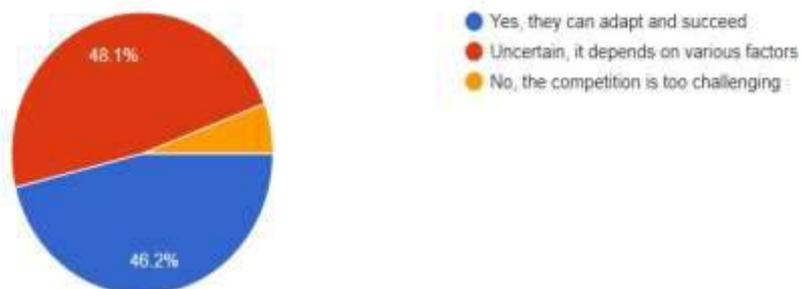
The likelihood of recommending small-scale businesses over fast-growing hypermarkets differs. While 37.5% express a strong likelihood to recommend them, 55.8% are somewhat likely to do so. Conversely, 6.7% indicate they are not likely to

make such recommendations. These responses underline the potential influence of positive experiences with local businesses on word-of-mouth referrals in comparison to larger hypermarkets.

GRAPH 24

20. Do you think small-scale businesses can survive and thrive despite the competition from fast-growing hypermarkets?

104 responses



The research study on the impact of fast-growing hypermarkets on small-scale businesses has unveiled a diverse range of perspectives on the ability of these local enterprises to endure and flourish in the face of intensified competition. With 46.2% confident in the potential for adaptation and success, there exists optimism in the adaptability of small-scale businesses. However, the 48.1% expressing uncertainty underscore the nuanced and multifaceted nature of this challenge, recognizing that success hinges on a variety of factors. Notably, the 5.8% who view the competitive landscape as too challenging suggest a need for strategic interventions and support mechanisms to sustain local businesses. Ultimately, the study highlights the intricate interplay between business resilience, market dynamics, and the role of external factors in shaping the fate of small-scale enterprises in an evolving economic environment.

6. FINDINGS

The research study gathered 104 responses through a Google

questionnaire, unveiling diverse viewpoints on the effect of fast-growing hypermarkets on small-scale businesses. Out of the respondents, 46.2% are optimistic about small-scale businesses adapting and thriving, while 48.1% express uncertainty due to varied influencing factors. Conversely, 5.8% consider the competitive landscape challenging for local businesses. These findings underscore the complexity of the issue, reflecting the intricate balance between business resilience, market shifts, and external support. The study emphasizes the significance of strategic measures to ensure the growth and sustainability of small-scale enterprises amidst the dynamic retail landscape.

7. CONCLUSION

The analysis concludes that the advent of hypermarkets has significantly impacted various forms of small shops in the study area. Small retailers across formats have experienced reduced sales and profits due to the competition from supermarkets. These challenges have been pervasive, affecting



retailers' customer base and necessitating adjustments to remain competitive. Notably, suburban small retailers recognize the appeal of hypermarkets' comprehensive offerings, substantial size, and financial stability that draw customers. Effective government intervention is vital to support small retailers, including infrastructure development for local markets and fostering retail cooperatives.

Safeguarding unorganized retail requires government intervention prioritizing urban renewal and modernizing conventional retail spaces for consumer appeal. Collaboration among traditional shops and property owners is essential to maintain clear pedestrian pathways. Efforts to enhance the shopping experience involve upgrading walkways, restroom facilities, standardized signage, lighting, and basic interior improvements. Diversified year-round promotions should replace sole reliance on major holidays. Small retailer associations are forming to offer hygienically prepared locally sourced street food, competing with modern malls' food courts. The decline of thriving traditional marketplaces is lamentable, necessitating cohesive efforts to sustain their vibrancy.

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THE MODERATING EFFECT OF VERBAL LINGUISTIC INTELLIGENCE ON THE RELATIONSHIP BETWEEN SPEAKING ANXIETY AND COMMUNICATION SKILLS AMONG ENGLISH MAJOR STUDENTS

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ABSTRACT

The ultimate goal of this study was to determine the moderating effect of verbal linguistic intelligence on the relationship between speaking anxiety and communication skills of the second year to fourth year English major students in the private higher education institutions (HEIs) in Region XI. Adapted survey questionnaires validated by experts were given to a sample of 300 students. Findings revealed that the of speaking anxiety, communication skills, and verbal linguistic intelligence are high. Moreover, findings revealed that speaking anxiety is significantly related to communication skills. Verbal linguistic intelligence also showed a positive significant relationship to communication skills. To determine the moderating effect of verbal linguistic intelligence, a logistic hierarchical regression was employed in this study. In this case, the findings revealed that verbal linguistic intelligence has no significant moderating effect on the relationship between speaking anxiety and communications skills. Students who have higher or lower levels of verbal linguistic intelligence demonstrated the same degree of communication skills as influenced by speaking anxiety. However, results revealed that separately speaking anxiety and verbal linguistic intelligence are important contributors to communication skills.

KEYWORDS: Applied linguistics, education, speaking anxiety, communication skills, verbal linguistic intelligence, moderating effect, Philippines

INTRODUCTION

Background of the Study

Communication skills refer to competence, body language, and dignification when speaking a language (Akkuzu & Akkaya, 2017). In a metric, competence denotes to the way an individual presents themselves when speaking and the quality of their thoughts; whereas body language refers to the accentuation while speaking (Guffey & Loewy, 2019). Lastly, dignification refers to being open towards criticism and fully understanding the context of the situation (Quintanilla & Wahl, 2019). According to Mahbub and Hadina (2021), college students with insufficient English oral communication skills can obstruct effective teacher-student interaction, making it challenging for students to ask questions, get feedback, and seek clarification — all of which can have an impact on how well they learn overall.

This problematic situation is not just an isolated case. In Korea, the insufficient English oral communication skills using the English language among college students in the academe can lead to challenges in group work, including poor coordination, ineffective collaboration, and conflicts, which can negatively impact academic performance and outcomes (Chae et al., 2019). As explicated by Fu et al. (2018), the limited English language proficiency hampers students' ability to actively

participate in classroom discussions, deliver presentations, and engage in academic writing tasks.

The Philippines has long been acknowledged for its proficient utilization of English as a second language, however, in recent years, there are growing concerns about the students' deteriorating communication skills. According to Jugo's (2020) research, students' limited English communication skills make it difficult for them to convey their ideas clearly, participate in insightful debates, and understand academic texts written in the language. In the local setting, research conducted in a Tagum City public secondary school showed that students have problems at a moderate level with regard to their speaking performance and anxiety is the highest and most common reason for this problem (Genelza, 2022).

There are research and articles that had established the significance of communication skills – this notion is especially true in learning English (Ahmad, 2016), in business (Conrad & Newberry, 2012), teaching process (Muste, 2016), and in job efficiency (Ranjan et al., 2015; Siriwardane & Durden, 2014). As stated by Dearden (2014), having effective English communication skills enables students to interact with cutting-edge research, work with experts from other countries, and widen their horizons academically. However, the researcher



experienced a scarcity in finding a variable study in the locality of the Davao Region employing moderating analysis for the past five years with English major students as respondents.

With the existence of problems with regard to students' communication skills and the absence of studies locally and nationally, there is an urgency to conduct this research. When completed, the researcher would provide the participants with a copy of the results and findings. In addition, the results of this study would be presented to the Private Higher Education Institutions (HEIs) in the region. The result of the study would be presented nationally and internationally at conferences. The whole research would be submitted to an international journal for publication.

Research Questions

This research aimed to quantitatively evaluate the moderating effect of verbal-linguistic intelligence on the relationship between speaking anxiety and students' communication skills. This research specifically intended to answer these questions:

1. What is the status of communication skills, speaking anxiety, and verbal-linguistic intelligence of English major students in Region XI?
2. Is there a significant relationship between:
 - 2.1. speaking anxiety and students' communication skills;
 - 2.2. verbal-linguistic intelligence and students' communication skills?
3. Does verbal-linguistic intelligence significantly moderate the relationship between speaking anxiety and students' communication skills?

Research Design

This research utilized a quantitative research design specifically a descriptive correlational research design using moderation

analysis. According to Creswell (2002), quantitative research is the process of gathering, evaluating, interpreting, and writing the findings of a study. Descriptive correlational design, on the other hand, searches for correlations between two or more factors. Simply stated, it investigates whether an increase or decline in one aspect influences the other (Tan, 2014). Using this design, the researcher was able to quantify the degree and significance of the causal relationships between the exogenous variables speaking anxiety, verbal-linguistic intelligence, and endogenous variable communication skills.

Moreover, the researcher utilized the moderating analysis study since the primary goal of this research is to investigate the moderating effect of verbal-linguistic intelligence on the relationship between speaking anxiety and communication skills. The direction of this relationship can likewise be changed by a moderating variable. Contextually, the moderating effect analysis was used to determine whether the strength of the relationship between the independent and dependent variables is affected by the moderator variable (Jose, 2017).

Place of Study

This moderating analysis study was conducted in Region 11, more precisely at the private higher education institutions, two from each of the provinces in the Davao region, formerly known as Southern Mindanao. Moreover, Figure 2.0 presents the map of the Philippines and Region 11. The study was conducted in seven private higher education institutions, namely School A, B, C, D, E, F, and G. There were two each of the provinces in the Davao region having a total of 300 respondents. The respondents were the 2nd year to 4th year English education major students of the ten selected private higher education institutions in Region 11.

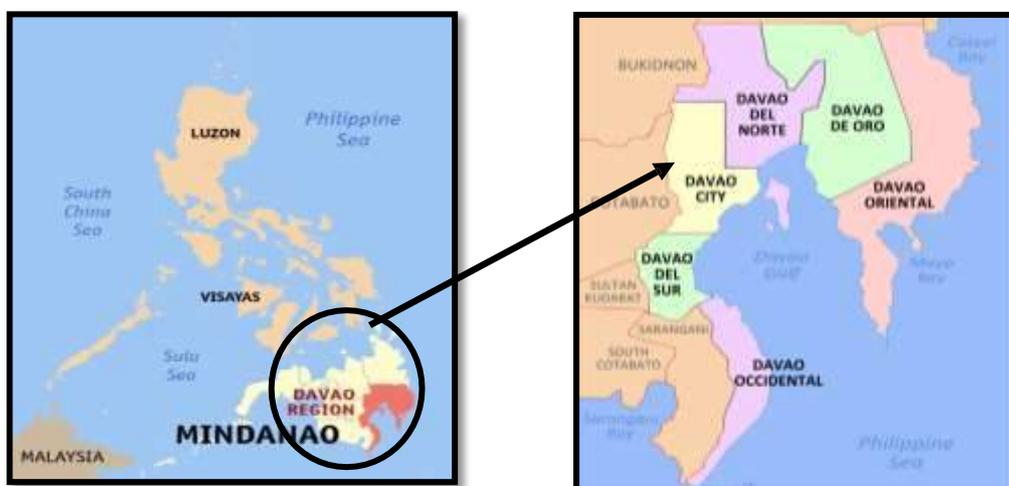


Figure 2.0: Map of the Philippine and Region XI



Data Treatment and Analysis

The following statistical tools were employed in data computation and hypothesis testing at the 0.05 level of significance.

Mean and Standard Deviation. This was utilized to measure and determine the level of students' speaking anxiety, students' verbal-linguistic intelligence, and students' communication skills. It also measured the standard deviation. Specifically, it was used to answer the problems 1, 2, and 3 to provide the mean for the level and status of each variable.

Pearson r Correlation. This statistical method was used to evaluate the relationship between speaking anxiety and

communication skills and verbal linguistic intelligence and communication skills. Specifically, it was used to answer the problem 4.

Hierarchical Logistic Regression and ModGraph. This was used to show the interaction effect and to determine the moderating effect of verbal-linguistic intelligence on the relationship between speaking anxiety and students' communication skills. It was used to answer research question no. 5. Both Hierarchical Logistic Regression and ModGraph are valuable tools in quantitative research for analyzing relationships and interactions between variables.

RESULTS

Table 1
Descriptive Level of Speaking Anxiety, Communication Skills, and Verbal Linguistic Intelligence of the English Major Students

Item	SD	Mean	Descriptive Level
Speaking Anxiety (IV)			
Communication Apprehension	0.67	3.87	High
Fear of Negative Evaluation	0.85	3.82	High
Low Self-Confidence	0.89	3.71	High
Overall	0.72	3.80	High
Communication Skills (DV)			
Competence	0.54	3.56	High
Discouragement	0.71	3.05	Moderate
Body Language	0.52	4.17	High
Dignification	0.52	4.12	High
Overall	0.34	3.73	High
Verbal Linguistic Intelligence (ModV)	0.72	3.80	High

The independent variable, *speaking anxiety*, gathered an overall mean of 3.80 being described as *High* descriptive level. This means that, on average, the respondents of the study experienced most of the time a high level of speaking anxiety. In this variable, the indicator *Communication Apprehension* obtained a highest mean of 3.87. It suggests that the respondents were generally apprehensive about communicating with others which yielded a *High* descriptive level. This is seconded by *fear of negative evaluation* which obtained a mean of 3.82, SD of 0.85, indicating that the respondents were concerned by being judged negatively by others which indicated a *High* descriptive level. While *low self-confidence* has a mean of 3.71 also described as *High* descriptive level.

Likewise, the dependent variable, *Communication Skills* of the English major students gathered an overall mean of 3.73 which

resulted to a *High* descriptive level. The mean score indicates that the second year to fourth year English major students' CS is observed most of the time. Among the four (4) indicators, *Discouragement*, followed its mean down to 3.05 described as *Moderate* descriptive level. While the other remaining three (3) indicators: *Competence*, *Body Language*, and *Dignification* reflected a high descriptive level with means of 3.56, 4.17, and 4.12 respectively.

Moreover, disclosed in row 3 of Table 1 is the moderating variable, *verbal linguistic intelligence* of English major students. The overall mean rating is 3.80 with a *High* descriptive level. This mean score indicates that the said variable is oftentimes manifested.



Table 2
Correlations Among Variables

	<i>Communication Skills (DV)</i>
<i>Speaking Anxiety (IV)</i>	.357**
	.000
<i>Verbal Linguistic Intelligence (ModV)</i>	.401**
	.000

It can be construed from the result that there is a significant relationship between speaking anxiety and communication skills. The significant relationship between speaking anxiety and communication skills of English major students suggests that high levels of speaking anxiety can increase the students' communication skills. Given this point, a study led by Brown and Miller (2016) showed that the heightened state of anxiety experienced during speaking situations can lead individuals to engage in active preparation, practice, and self-reflection. This proactive approach can result in improved communication competence and the development of effective strategies for managing anxiety. In essence, speaking anxiety can act as a catalyst for individuals to invest time and effort in honing their communication skills.

In the same way, a study by Gardner et al. (2019) exposed that speaking anxiety can motivate individual to prepare carefully

for speaking tasks and to practice their communication skills. For example, Jansen et al. (2022) found out that self-comparison to others causes learners to show more competitive behaviors. Because the learners give more importance to achievement and want to be more successful, it may cause them to be more anxious especially in oral exams.

Meanwhile, the significant relationship between verbal linguistic intelligence and communication skill is aligned with the results revealed by Filiz (2020) who detailed that there is a favorable and significant association between students' verbal intelligence and communication abilities. Notably, a study conducted by Conroy (2010) also corroborates the study's results who found out that the more the students were conscious of their verbal intelligence through being hyperaware of sentence patterns in their reading, writing, speaking, and listening, the more they could hone their communication skills.

Table 3
Hierarchical Regression to Assess the Moderating Effect of Verbal Linguistic Intelligence on the Relationship between Speaking Anxiety and Communication Skills

Model	Unstandardized Coefficients		Standardized Coefficients		R Square Change
	B	Std. Error	Beta	t	
1 (Constant)	3.091	.098		31.498	.127
Speaking Anxiety	.167	.025	.357	6.588	.000
2 (Constant)	2.245	.139		16.153	.153
Speaking Anxiety	.162	.023	.345	7.004	.000
Verbal Linguistic Intelligence	.237	.030	.391	7.942	.000
3 (Constant)	2.954	.629		4.694	.003
Speaking Anxiety	-.022	.161	-.047	-.136	.892
Verbal Linguistic Intelligence	.045	.169	.074	.263	.792
Speaking Anxiety by Verbal Linguistic Intelligence	.050	.043	.515	1.155	.249

In the context of this study, speaking anxiety, the independent variable, was entered into the hierarchical procedure depicted as the step one. Regression results are shown in Table 3. When regressing speaking anxiety (B = .162, p<.001) and the moderating variable, verbal linguistic intelligence (B = .237, p<.001) in step 2, they were found to be significant predictors of communication skills of the second year to fourth year

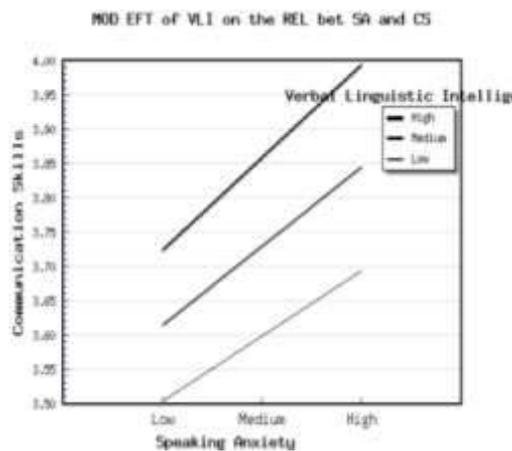
English major students in Region XI in their capacities as separate variables. The third step in the regression analysis was to determine the interaction effect of verbal linguistic intelligence on the relationship between speaking anxiety and communication skills, as proposed in hypothesis 2, so that the higher level of verbal linguistic intelligence does not increase

nor decrease the relationship between speaking anxiety and communication skills.

When the effect of one independent variable differs based on the level of magnitude of another variable (a moderator variable), then the interaction occurs. The interaction effect ($B = .050$ $p > 0.05$) which is the product of speaking anxiety and verbal linguistic intelligence is not significant, hence the acceptance of the null hypothesis that verbal linguistic intelligence does not moderate the relationship between speaking anxiety and communication skills.

This suggests that the interaction effect is not a contributor to the model variance. The result of the study could be further analyzed through R square change in Table 3. The R square change tells how much variance in the DV these predictors explained in each step. The R square change of .153 means an additional variance of 15% to the variance of 13% in Step 1 of the hierarchical regression. This shows that 15% of the variance in verbal linguistic intelligence of of the second year to fourth year English major students in Region XI is due to their speaking anxiety. The interaction term (speaking anxiety X verbal linguistic intelligence registered a 0.003 contribution to DV.

Figure 3.0: Graphical Depiction of the Moderating Effect of Verbal Linguistic Intelligence on the Relationship Between Speaking Anxiety and Communication Skills



The results of the regression indicated that both speaking anxiety and communication skills are significant predictors of verbal-linguistic intelligence of English major students in Region XI in their capacities as separate variables. However, the interaction effect or the product of speaking anxiety and communication skills was not a contributor to the model variance. This implies that verbal-linguistic intelligence does not significantly moderate the relationship between speaking anxiety and communication skills.

practice, and self-reflection. To emphasize, this proactive approach can result in improved communication competence and the development of effective strategies for managing anxiety. In essence, speaking anxiety can act as a catalyst for individuals to invest time and effort in honing their communication skills.

With the results on the correlation revealed above, the significant relationship between speaking anxiety and communication skills established in this study supported the study of Brown and Miller (2016), it showed that the heightened state of anxiety experienced during speaking situations can lead individuals to engage in active preparation,

On the other hand, the significant relationship between verbal linguistic intelligence and communication skills supported the findings of the study conducted by Espineda-Villanueva (2019) which showed that there is a relationship between verbal linguistics intelligence and communication skills as indicated by computed value of .207 at .05 significance level. Therefore it can be concluded that students who find it challenging to communicate are those students with low verbal linguistics intelligence.

Table 4
Summary of Means on the Main Effects of Speaking Anxiety and Verbal Linguistic Intelligence

	High Verbal Linguistic Intelligence (ModV)	Medium Verbal Linguistic Intelligence (IV)	Medium Verbal Linguistic Intelligence (DV)
High Speaking Anxiety	3.72347	3.85819	3.99292
Medium Speaking Anxiety	3.61326	3.72818	3.84310
Low Speaking Anxiety	3.50306	3.59817	3.69328



The results of the table show that there is a significant main effect of both speaking anxiety and verbal linguistic intelligence. This means that the average scores for speaking anxiety and verbal linguistic intelligence differ significantly between the different groups. Equally, the results show that the average scores for speaking anxiety are higher for respondents with high verbal linguistic intelligence than for respondents with medium or low verbal linguistic intelligence. This is likely because respondents with the high verbal linguistic intelligence are more aware of the potential for negative evaluation in speaking situations which can lead to increased anxiety.

Such findings conform to the study of Quijano and Asio (2022) revealed that students with anxiety or low level of confidence restricts the chances of learning and speaking the language hence pose serious threat to oral communication skills. To point out, they opined that the high level of anxiety among students seriously hampers the interaction between teacher and students which is extremely crucial to productive teaching and learning of the language. Since anxiety is a multi-faceted dilemma language barrier for students, therefore this problem needs to be studied.

Identically, the results showed that speaking anxiety influence communication skills of the students. However, verbal linguistic do not significantly moderate the relationship between the independent and dependent variable. This shows that anxiety is of great importance in the communication skills of the students. Several research discussed that students become concern about their speaking performances when they compare themselves to their classmates increasing their anxiety level (Ebadijalal and Yousofi, 2023). This is in support of the findings of prior studies stating that students' performances will deteriorate if their levels of anxiety are high (Derling et al., 2021). Additionally, this result is associated with Inada (2021), which led researchers to focus on considering student's feelings of anxiety specially when it comes to communications.

CONCLUSIONS

1. The descriptive level of the independent and dependent variables speaking anxiety and communication skills are high which signifies that these variables are evident most of the time. Likewise, the moderating variable-verbal linguistic intelligence, with a high descriptive level, signifies that it is also evident most of the time.
2. The results of the regression indicated that both speaking anxiety and communication skills are significant predictors of verbal-linguistic intelligence in their capacities as separate variables suggesting a complex and dynamic relationship between these variables.
3. In the moderation analysis, it depicts that verbal linguistic intelligence does not significantly moderate the relationship between speaking anxiety and communication skills of the English major students. This finding highlights importance of addressing speaking anxiety as a key factor influencing communication skills development in English language learning, even for students with strong verbal-linguistic abilities.

Recommendations

1. The result revealed alarmingly a high level of speaking anxiety. The school administrators, curriculum developers, teachers, and other stakeholders must work hand in hand as they play a crucial role in fostering a more supportive learning environment that encourages effective communication, enhance academic engagement, and mitigates speaking anxiety among English major students.
2. The results showed a significant relationship of the variables understudied. With this, the researcher suggester that the school administrators, curriculum, developers, and curriculum implementers may consider evaluating their teaching pedagogies, utilize the best of strategies and resources and use its advantages as tools to create a learning environment that empowers English major college students to overcome speaking anxiety, develop communication skills effectively, and achieve full academic potential.
3. The interaction effect or the product of speaking anxiety and communication skills was not a contributor to verbal linguistic intelligence. This implies that verbal-linguistic intelligence does not significantly moderate the relationship between speaking anxiety and communication skills. With this, the researcher proposes doing more research on the same issues investigated in this study.
4. The findings of this study may be used as guide for harnessing teaching strategies and implementing a more appropriate pedagogical practices in English classroom language setting to increase students' ability to communicate and use the language without any fear of participating. It should be noted that the completion of this study does not entirely measure the entirety or the wholeness of researches attributed to investigating the focus of the study. Similar study may be conducted using mixed-methods approach involving qualitative data collection from the lens of the students.

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EXAMINING THE IMPACT OF FEMALE-CENTRIC MEDIA ON GENDER NORMS: AN ANALYSIS OF HINDI SOAP OPERAS

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ABSTRACT

Purpose: In today's world, media plays a vital role in conveying messages and information, serving as the easiest and quickest means to reach people within a short period. Soap operas, being the oldest and most straightforward method of storytelling, effectively communicate messages to the audience. Numerous soap operas run successfully, delivering social messages and providing daily entertainment. People are inevitably influenced by soap operas, as these shows are interconnected in a manner that makes viewers feel as if the events are unfolding in their own lives. Nowadays, there is a growing trend of women-oriented soap operas that not only entertain but also convey social messages. Especially in the realm of Hindi soap operas, this underscores the crucial need to recognize their potential impact on shaping cultural perspectives regarding gender roles. This study aims to explore the impact of women-oriented soap operas on societal and mental development. These shows have the potential to influence society with new ideas and experiments, contributing to its growth and evolution over time.

Methodology / Design / Approaches: It is an exploratory study with the help of secondary data where the researchers have conducted a content analysis of various magazines, articles, google scholar, data based and related websites.

Findings and results: Soap operas portray women characters in an inspiring manner, motivating society to take on challenges and strive for achievement. According to numerous studies, women-oriented motivational soap operas have a substantial audience, and their impact on society is significant. Viewers form emotional connections with these characters, especially women who find relatability in their daily routines. Challenging traditional stereotypes is a prominent theme in contemporary soap operas, appreciated by audiences, and contributing to societal acceptance of change.

Originality / value: It is a descriptive study, exploration and analysis, which synthesizes empirical research to reveal subtle insights into the transformative potential of collective virtual environments to contribute value to developing innovative and efficient learning methods.

Type of paper: Descriptive research with exploratory research design.

KEYWORDS: Soap Opera, Media, Audience, Television, Society, Women, Motivation, Achievements, Knowledge.

1. INTRODUCTION

Over the years, the television landscape in India has undergone significant changes, with widespread viewership of Hindi channels across the nation, reflecting the country's diverse linguistic offerings. Television now plays an integral role in people's lives, serving various purposes such as entertainment, information dissemination, knowledge acquisition, education, cultural representation, communication, connectivity, social cohesion, and crisis communication [1]. Both fiction and non-fiction contribute to the world of entertainment, with soap operas particularly influencing the daily lives of viewers. The increasing focus on women in the media aligns with the global movement for gender equality and women's empowerment [2].

Hindi soap operas, with their expansive storylines and broad viewership, play a distinctive role in this societal shift [3].

These television serials serve as mirrors and architects of societal norms, portraying the intricacies of women's lives in India. Recognizing the importance of understanding their influence lies in unravelling the complex relationship between media representation and the reinforcement or challenging of gender stereotypes [4]. As these stories unfold on the television screen, they resonate with and contribute to the broader conversation about the changing roles of women in a society undergoing rapid transformation [5].

Hindi soap operas not only observe but actively shape societal changes by depicting women navigating the intricate dynamics of familial expectations, professional ambitions, and personal relationships. Feminist media studies provide a critical perspective for analysing the portrayal of women in these shows, exploring the potential reinforcement or subversion of



traditional gender norms within Hindi soap opera narratives [6]. This theoretical framework serves as the basis for a subsequent investigation into the content, reception, and societal impact of these serials. The study focuses on the depiction of women in specific Hindi soap operas and aims to uncover how these portrayals influence viewers' perceptions of gender roles. Utilizing methods such as content analysis, surveys, and interviews, the research seeks to offer a comprehensive understanding of how women-centric media contributes to the negotiation, reinforcement, or transformation of gender norms within Indian society.

2. SOAP OPERA

A soap opera is a type of serialised television or radio programme that revolves around the daily lives, relationships, and dramatic occurrences of a group of people. The phrase "soap opera" originates in the early days of radio broadcasting, when these programmes were sponsored by soap makers [7]. Normally now people call it as a serial. Soap operas are noted for their continuous storylines that span numerous episodes or seasons. Unlike traditional dramas, which frequently feature self-contained episodes, soap operas create complex, interconnected narratives that keep viewers interested over time [8]. Soap operas are often situated in ordinary situations such as homes, workplaces, and towns. Viewers can easily relate to the individuals and their problems as a result. A broad and diverse ensemble cast is common in soap operas [9]. Characters come from a variety of backgrounds and age groups, and their interactions and relationships constitute the centre of the plot. Television shows concentrate on the interpersonal connections of the characters. The plot is propelled forward by romantic entanglements, family dynamics, friendships, and conflicts [10]. Drama and strife are essential ingredients in soap operas. The genre relies on heightened emotions and emotional events to keep audiences interested, whether it's romantic misunderstandings, family secrets, or workplace conflicts [11]. Unlike many other television genres, soap operas frequently leave plots unresolved. This motivates fans to tune in on a frequent basis to follow the adventures of their favourite characters. Soap operas frequently have lengthy runs, with some series lasting decades. Because of the duration, rich and elaborate plot arcs can be developed, and characters can mature greatly over time [12]. Historically, many soap operas were broadcast throughout the day, with a female audience in mind. However, the introduction of cable and streaming services has broadened the audience for soap operas.

2.1 Hindi Soap Opera

Hindi soap operas, commonly known as "Hindi serials" or "Indian television dramas," wield substantial influence in India's entertainment industry, playing a central role in shaping the television landscape and reflecting societal norms. Covering diverse themes and cultural expressions, these serials portray various regions, cultures, and languages, showcasing India's rich diversity [13]. Family dramas, a prevalent genre, delve into the complexities of familial relationships, conflicts, and emotional intricacies, exploring themes like love, marriage, sibling rivalry, and generational divides. Some soap operas set

in historical contexts weave together facts and imagination, addressing crucial periods in Indian history. Addressing contemporary issues, many serials tackle topics such as women's empowerment, education, gender equality, and caste dynamics, serving as platforms for raising awareness and fostering discussions on societal concerns [14]. Love storylines are common, incorporating elements of tradition, social divisions, and societal expectations. Additionally, some serials focus on Indian mythology, narrating stories from ancient texts with grand visuals. With changing demographics, serials increasingly target a younger audience, addressing the lives of today's youth, including job goals, relationships, and societal expectations. Some introduce fantasy and supernatural elements, while others explore crime, mystery, and thriller genres with gripping plots [15]. Notably, women-oriented serials have significantly shaped Indian television, featuring strong female protagonists and resonating with women's challenges, aspirations, and successes across various backgrounds.

2.2 Women Oriented Soap

Women-centric Hindi soap operas serve as a potent medium for portraying diverse aspects of women's lives within the intricate fabric of Indian society. Airing on various television networks, these serials not only entertain but also stimulate discussions on crucial societal issues [16]. Empowering themes dominate these narratives, showcasing the strength, resilience, and uniqueness of female protagonists who defy gender norms.

Covering societal challenges, personal growth, family dynamics, professional struggles, and historical contexts, each serial speaks to the diverse experiences of women across age, background, and social settings. Confronting social issues head-on, these soap operas contribute to awareness and advocate for positive societal change, addressing topics like female empowerment, gender equality, domestic abuse, and discrimination.

Breaking stereotypes, the characters in these serials challenge cultural norms, urging viewers to reconsider traditional standards [17]. Strong and multi-dimensional female characters serve as role models, demonstrating brilliance, bravery, and resilience in navigating familial, professional, and societal demands.

With a broad audience appeal, these soap operas captivate both male and female viewers, influencing societal perceptions of gender roles [18]. Some delve into historical narratives, shedding light on the historical struggles and contributions of women. Others explore the complexities of balancing personal and professional lives, reflecting changing societal expectations.

Beyond entertainment, these soap operas convey meaningful messages, fostering empathy, social consciousness, and personal growth. Evolving with time, the landscape of women-oriented soap operas reflects a dynamic blend of tradition and modernity, encapsulating the changing roles of women in Indian society [19].



3. RELATED WORKS

Sl. No.	Focuses	Contribution	Reference
1	Genre and Gender	Mass Culture & Gendered Culture	Gledhill, C. (1997)[20]
2	Giving motivation	Viewing motivation & Cultivation Process	Carveth, R., & Alexander, A. (1985)[21]
3	Effect on story	Soap Opera effect on story recall	Owens, J., Bower, G. H., & Black, J. B. (1979). [22]
4.	Audience activity	Involvement & Effects Investigation	Rubin, A. M., & Perse, E. M. (1987). [23]
5.	Female subject	Femineity & Desire	Nochimson, M. (1992). [24]
6.	The feminist	Feminist Intellectual	Brunsdon, C. (2000).[25]
7.	Audience activity	Satisfaction with television	Perse, E. M., & Rubin, A. M. (1988). [26]
8.	Cultural object	Anthropological object	Das, V. (2003). [27]
9.	Television audience	Limits of Genre	Allen, R. (2013). [28]
10.	Television effect	Measuring happiness	Lu, L., & Argyle, M. (1993). [29]
11.	Audience awareness	Audience participation	Kielwasser, A. P., & Wolf, M. A. (1988). [30]
12.	Viewing Motivates to Cultivation	Perceived Realism	Perse, E. M. (1986). [31]

4. RESEARCH METHODOLOGY

It is an exploratory study with the help of secondary data where the researchers have conducted a content analysis of various magazines, articles, google scholar, data-based and related websites.

5. OBJECTIVES OF THE STUDY

- To investigate the role of women in Hindi soap opera in the intersections between empowerment and social issues.
- To examine and understand the portrayal and changing roles of women in Hindi soap operas, exploring their societal impact and influence on gender norms.
- To analyse how women's roles in Hindi soap operas contribute to themes of self-discovery and empowerment, influencing societal attitudes.
- To challenge stereotypes, examining how women's roles in Hindi soap operas either reinforce or subvert societal expectations.

5.1 Empowerment and Social Issues

Hindi soap operas dedicated to social justice and empowerment go beyond mere entertainment, actively addressing real-world challenges faced by women and marginalized communities. Through the portrayal of strong female characters and advocacy for societal change, these shows contribute significantly to vital discussions on gender equality, education, and empowerment. For example, "Balika Vadhu" on Colors Channel tackles the issue of child marriage, advocating for reform through education and empowerment initiatives. Similarly, "Udaan" on Colors Channel highlights Chakor's empowerment, emphasizing her resistance against societal norms such as child labor and injustice. "Pratigya" on Star Plus narrates the protagonist's stand against injustice and patriarchal norms,

addressing issues like dowry and women's rights to champion social equality and empowerment. Additionally, "Na Aana Is Des Laado" on Colors Channel sheds light on societal issues like female infanticide and discrimination in rural India, showcasing the courage of women standing against these cultural practices. Overall, these soap operas serve as powerful mediums for raising awareness and advocating positive societal transformations.

5.2 Fight Against Injustice

Hindi soap operas, which center around combating injustice, serve as impactful platforms for creating awareness about vital social issues. These narratives not only provide entertainment but also illuminate real-world challenges, prompting viewers to contemplate societal norms and actively support positive transformations. Through the portrayal of characters standing up against injustice, these shows actively contribute to the ongoing discourse on social justice, motivating viewers to become advocates for change within their communities. Take, for instance, 'Diya Aur Baati Hum' on Star Plus, a compelling storytelling medium addressing societal concerns. Through the character of Sandhya, the series emphasizes the significance of challenging norms and resisting injustice, encouraging viewers to reflect on their role in fostering positive change and cultivating a sense of justice in society. Similarly, 'Pratigya' on Star Plus follows the resolute journey of Pratigya, a strong-willed woman determined to combat injustice and patriarchal norms, addressing issues such as dowry and women's rights while advocating for social equality and empowerment. 'Udaan' on Colors focuses on the empowerment of its female lead, Chakor, as she confronts societal norms and battles challenges like child labor and oppression, highlighting the struggle for justice and freedom. Likewise, 'Balika Vadhu' on Colors delves into the issue of child marriage and its societal consequences, portraying the fight against injustice by depicting the challenges



faced by child brides and advocating for transformative social change.

5.3 Self- Discovery and Empowerment

Hindi soap operas delving into self-discovery and empowerment serve as reflections of real-life journeys, depicting individuals on a quest to discover their identity and purpose. These narratives transcend traditional storytelling by portraying characters who defy societal expectations, make choices for personal fulfillment, and embark on transformative paths. The overarching theme encourages viewers to introspect on their own journeys of self-discovery and empowerment, instilling a sense of inspiration and strength among the audience. For instance, "Tumhari Paakhi" on Life Ok narrates the story of Paakhi, who sacrifices for her family's happiness but later chooses to reclaim her life, exploring themes of self-discovery and empowerment. Meanwhile, "Yeh Hai Mohabbatein" on Star Plus, primarily a love story, showcases characters like Ishita undergoing significant self-discovery, emphasizing empowerment through relationships and personal growth amid challenges. The thriller "Ek Hasina Thi" on Star Plus follows the transformation of its protagonist, Durga, seeking justice and delving into themes of self-empowerment, vengeance, and truth. Similarly, "Silsila Badalte Rishton Ka" on Colors Channel explores the complexities of relationships, addressing themes of self-discovery, empowerment, and the defiance of societal norms as characters navigate their desires and identities.

5.4 Challenging Stereotypes

Hindi soap operas that defy stereotypes play a pivotal role in reshaping societal perspectives and moving away from traditional norms. Beyond providing entertainment, these narratives serve as a means to champion inclusivity, diversity, and acceptance. By presenting characters who challenge established stereotypes, these shows not only entertain but also motivate viewers to question preconceived notions, fostering a more open-minded and progressive societal outlook. The overarching theme encourages audiences to embrace individuality and appreciate the uniqueness of each person, regardless of societal expectations. For instance, "Ikyawann" on Star Plus challenges stereotypes as Susheel, the 51st child of the Parekh family, embarks on a journey to break societal norms and establish herself in a male-dominated society, prompting viewers to reconsider traditional expectations. Similarly, "Shakti" on Colors channel challenges gender stereotypes through the struggles of Soumya, a transgender character, addressing societal prejudices and promoting acceptance and understanding against conventional perceptions of gender roles. "Patiala Babes" on Sony Entertainment Channel challenges age-related stereotypes by portraying the unconventional relationship between a mother and her daughter-in-law, breaking free from societal norms regarding women's roles and expectations, and emphasizing individuality. Additionally, "Jassi Jaissi Koi Nahin" on Sony Entertainment Channel challenges stereotypes related to physical appearance and beauty standards. The protagonist, Jassi, challenges societal norms by showcasing that talent and intelligence outweigh

conventional beauty standards, encouraging viewers to embrace individuality.

5.5 SWOC analyses of Women oriented Hindi Soap Operas

SWOC analysis is an analysis of strengths, weaknesses, opportunities and challenges in Hindi Language Women oriented soap operas focusing on themes like social justice, empowerment, self-discovery, and challenging stereotype. It is the strategy used by channels to come up with new stories.

5.5.1 Strengths

- i. Relevance to Societal Issues: The research paper addresses critical societal issues, making it highly relevant and contributing to ongoing discussions on gender equality and empowerment.
- ii. Diversity of Themes: Encompasses a broad spectrum of themes, including social justice, empowerment, self-discovery, and challenging stereotypes, showcasing the diversity of content within women-oriented soap operas.
- iii. Impactful Medium: Soap operas are a widely watched and influential medium, providing the research with the potential to reach and influence a large audience.
- iv. Cultural Insight: The focus on Hindi women-oriented soap operas provides valuable cultural insights into the portrayal of women in Indian television, contributing to a nuanced understanding of societal dynamics.

5.5.2 Weaknesses

- i. Subjectivity in Analysis: Analysing soap operas may involve subjective interpretations, potentially leading to biases in the assessment of their societal impact.
- ii. Limited Generalizability: Focusing primarily on Hindi soap operas may limit the generalizability of findings to other cultural or linguistic contexts, reducing the universality of the research.

5.5.3 Opportunities

- i. Audience Engagement: The research paper could engage a broader audience by connecting academic insights with the interests of soap opera viewers, fostering dialogue on social issues.
- ii. Industry Impact: Findings could potentially influence the creation of future soap operas, encouraging the industry to produce content that aligns with social justice and empowerment themes.

5.5.4 Challenges

- i. Subjectivity and Interpretation: Analysing soap operas' societal impact involves subjective interpretation, necessitating researchers to navigate potential biases.
- ii. Limited Scope and Generalization: Focusing on Hindi soap operas may restrict findings' generalizability to other cultural or linguistic contexts, requiring a balance between depth and broader applicability.
- iii. Access to Comprehensive Data: Obtaining accurate data on viewership, audience reactions, and



- production details poses challenges, impacting the analysis's robustness.
- iv. **Dynamic Industry Nature:** The dynamic nature of the television and entertainment industry challenges researchers to stay current with evolving trends for research relevance.
 - v. **Cultural Sensitivity:** Ensuring cultural sensitivity in analysing gender-related themes is crucial to avoid unintentional stereotyping or misinterpretation.
 - vi. **Public Perception and Criticism:** Anticipating criticism from those questioning soap operas' societal influence or having diverse views on women's portrayal is a potential challenge.
 - vii. **Resistance to Industry Change:** The soap opera industry's potential resistance to content changes, especially those advocating social justice and empowerment, may pose challenges.
 - viii. **Ethical Considerations:** Addressing ethical concerns, including privacy and rights of individuals involved in soap operas, presents challenges in conducting responsible research.

SWOC analysis provides valuable insights for optimizing the research's strengths, addressing weaknesses, capitalizing on opportunities, and mitigating threats. This strategic approach can enhance the research's impact and contribute meaningfully to discussions on gender, empowerment, and societal norms within the realm of Hindi women-oriented soap operas.

6. FINDINGS AND SUGGESTION

The findings of this research paper on Hindi women-oriented soap operas centred around themes such as social justice, empowerment, self-discovery, and challenging stereotypes reveal a multifaceted portrayal of women within the dynamic landscape of Indian television. Through a comprehensive analysis of various soap operas, it becomes evident that these narratives play a pivotal role in addressing and reflecting upon critical societal issues. The research underscores the strength of this influential medium in shedding light on gender-related challenges and advocating for positive societal change. Moreover, the exploration of diverse themes within women-oriented soap operas illustrates the complexity and richness of storytelling, providing audiences with narratives that go beyond mere entertainment. However, the findings also highlight challenges, including the subjectivity inherent in analysing such content and the potential limitation of generalizability to other cultural contexts. Nevertheless, the opportunities presented by engaging a broader audience and influencing industry practices underscore the potential societal impact of this research. Overall, the findings contribute valuable insights into the intersection of media, culture, and gender dynamics, emphasizing the need for continued exploration and discourse on the representation of women in Hindi soap operas.

Hindi women-oriented soap operas focusing on themes like social justice, empowerment, self-discovery, and challenging stereotypes offers valuable insights into the portrayal of women in Indian television. Based on the findings, several suggestions can be made to enhance the impact and relevance of the research:

- i. **Diversify Regional and Cultural Perspectives:** Consider expanding the scope of the research to include soap operas from various linguistic and cultural regions in India. This approach would provide a more comprehensive understanding of how women are portrayed in different cultural contexts.
- ii. **Longitudinal Analysis:** Explore the possibility of conducting a longitudinal analysis to track changes in the portrayal of women over time. This could offer insights into evolving societal norms and the soap opera industry's responsiveness to changing dynamics.
- iii. **Collaboration with Industry Stakeholders:** Seek collaboration with soap opera producers, writers, and industry experts to gain deeper insights into the creative process. This collaboration can foster a more nuanced understanding of the challenges and opportunities in incorporating empowering themes into storylines.
- iv. **Audience Reception and Impact Assessment:** Conduct audience reception studies to gauge how viewers interpret and respond to the portrayals of women in these soap operas. Understanding audience perceptions can provide valuable feedback for both the industry and future research.
- v. **Comparative Analysis with International Soap Operas:** Consider comparing the findings with portrayals of women in soap operas from other countries. This comparative analysis can offer a broader perspective on gender representation in television narratives.
- vi. **Educational Initiatives:** Propose educational initiatives based on the research findings. Work towards creating awareness campaigns or workshops that leverage the influence of soap operas to promote positive societal values, gender equality, and empowerment.
- vii. **Policy Advocacy:** Explore opportunities for policy advocacy based on the research. Engage with policymakers and advocacy groups to highlight the potential impact of media content on societal perceptions and promote positive changes in the industry.
- viii. **Ethical Guidelines for Content Creation:** Develop ethical guidelines for content creators in the soap opera industry. This could include recommendations for portraying women in a sensitive and empowering manner, avoiding stereotypes, and promoting social justice.
- ix. **Public Discourse Platforms:** Engage in public discourse by presenting the research findings at conferences, seminars, and through media channels. Actively participate in discussions on gender representation in media to contribute to societal awareness and dialogue.

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UPDATED ANALYSIS AND REVIEW OF HALLUX VALGUS, CLINICAL CASE DESCRIPTION, ETIOLOGY, EPIDEMIOLOGY, PATHOPHYSIOLOGY, CLINICAL EVALUATION, CONCOMITANT DISORDERS, RADIOGRAPHIC APPROACH, IMAGING CLASSIFICATION SYSTEMS, TREATMENT, PROGNOSIS AND COMPLICATIONS

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SUMMARY

Introduction: Hallux valgus (HV) is one of the most constant pathologies in orthopedics, compromising both soft and bony tissues of the first toe, being more common in women. This deformity is generated by a progressive subluxation in valgus of the metatarsophalangeal joint (MTF) of the first toe and a varus deviation of the first metatarsal.

Objective: to detail current information related to hallux valgus, case description, etiology, epidemiology, pathophysiology, history, clinical evaluation, imaging approach, classification, treatment, prognosis and complications.

Methodology: a total of 50 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 37 bibliographies were used because the other articles were not relevant for this study. The sources of information were



PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: hallux valgus, deformity, foot, metatarsal, bunions.

Results: Hallux valgus deformity is relatively common, occurring in about 23% of adults aged 18 to 65 years and up to 36% of adults older than 65 years, and particularly in adult women, occurring in up to 30%.

Conclusions: Hallux valgus, or bunion, is the valgus deviation of the first orthotic with a varus deviation of the first metatarsal. The establishment of a diagnosis can be made through physical examination, however imaging helps to determine the involvement of the first metatarsophalangeal joint. At the moment there are several surgical techniques developed to restore the deformity. Hallux valgus corrective surgery is effective, presenting high rates of pain relief, deformity correction and patient satisfaction, however it is not free of complications.

KEY WORDS: hallux valgus, deformity, foot, metatarsal, bunions.

INTRODUCTION

Hallux valgus (HV) is one of the most common pathologies in orthopedics, involving both soft and bony tissues of the first toe, being more common in women. This deformity is caused by a progressive valgus subluxation of the metatarsophalangeal joint (MTF) of the first toe and a varus deviation of the first metatarsal. Hallux valgus is considered a multifactorial pathology. As the first toe deviates and pain increases, the affected individual tends to carry a greater percentage of weight on the heads of the lesser metatarsals, thus increasing the possibility of metatarsalgia in these toes, as well as hyperkeratosis or sometimes stress fractures. At the moment there are several surgical techniques developed to fix the deformity, and to alleviate the pain. The most common are corrective osteotomies, soft tissue plasty, resection arthroplasty and arthrodesis(1).

METHODOLOGY

A total of 50 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 37 bibliographies were used because the information collected was not sufficiently important to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in

Spanish, Portuguese and English were: hallux valgus, deformity, foot, metatarsal, bunions.

The choice of bibliography exposes elements related to hallux valgus; in addition to this factor, a case description, etiology, epidemiology, pathophysiology, history, clinical evaluation, imaging approach, classification, treatment, prognosis and complications are presented.

DEVELOPMENT

Case Description: a middle-aged male is shown who comes to a trauma consultation for presenting protrusion in the big toe of the left foot, generating pain, difficulty in ambulation and discomfort when wearing footwear.

Complementary tests:

- Physical examination was performed, finding limited mobility of the joint, lateral deviation of the big toe, beginning to tuck under the second toe.
- Anteroposterior radiography shows hallux valgus, with metatarsophalangeal angulation, angulation between the first and second metatarsals.
- Laboratory tests to rule out uric acid, diabetes.



Figure 1. Radiograph of the Patient Previously Mentioned, Showing Hallux Valgus.



Source: The Authors.

Diagnosis: Hallux valgus.

Results: Surgery was performed and treatment with analgesics and anti-inflammatory drugs was not effective. The use of another type of footwear was also recommended. The patient underwent

surgical correction of hallux valgus, presenting pain relief and satisfaction with the surgery in the postoperative control; images of the immediate postoperative period are shown below.

Figure 2. Immediate postoperative fluoroscopy of hallux valgus surgery in anteroposterior view of the foot.



Source: The Authors.



Figure 3. Immediate postoperative fluoroscopy of hallux valgus surgery in lateral foot view.



Source: The Authors.

Conclusion: Hallux valgus corrective surgery is effective, however, the immediate postoperative period is painful for the patient, in spite of that, later the pain decreases presenting high satisfaction rates. The following is an analysis and an updated review of the subject.

Etiology

Although the exact biomechanical etiology of hallux valgus is not well understood, it is known that the medial prominence or bunion is the result of both medial deviation of the first metatarsal as well as lateral deviation and pronation of the hallux. There are some factors that give a predisposition to form hallux valgus, among them are genetics, female sex, age and tight footwear, however there are multiple other contributing factors such as short first metatarsal, first metatarsal in dorsiflexion, rigid or flexible planovalgus foot, equinus gastrocnemius, abnormal foot mechanics, flexible or rigid varus forefoot and hypermobility of the joints. There is bibliography where there is evidence that gouty arthritis, psoriatic arthritis, rheumatoid arthritis predisposes individuals to present the deformity, as well as the literature indicates an increase in the frequency in connective tissue disorders such as Marfan syndrome and Ehlers-Danlos syndrome and also in Down syndrome. Any muscle imbalance in the foot due to cerebral palsy, stroke or myelomeningocele can also lead to hallux valgus. Tight shoes and high heels are also seen as extrinsic predisposing factors to hallux valgus due to increased loading of the first metatarsal and valgus stress on the first MTF joint during gait(2-8).

Pathophysiology

It is currently thought that there is an imbalance between the extrinsic and intrinsic muscles of the foot as well as the ligaments. The first radius is inherently unstable because its stability depends on multiple static and dynamic structures at the first metatarsophalangeal (MTP) and first tarsometatarsal (TMT) joints. It is also thought that the first stage of hallux valgus deformity is the attenuation of the medial supporting components of the first radius, which generates a medial deviation of the first

metatarsal and a lateral deviation and pronation of the hallux, presenting a progressive varus deformity at the first TMT joint. The maintenance of the alignment of the first metatarsal is due to the tension given by the peroneus longus laterally and the abductor hallucis muscle medially. The collateral ligaments do not allow movement along the transverse plane at the first MTP joint. As there is increased pressure on the first metatarsal head, the metatarsal will move medially and dorsally. This force increases the hallux angle and worsens with muscle stabilization during gait. Over time these forces push the first metatarsal medially and the hallux laterally, the medial collateral ligament and medial capsule tighten causing it to rupture. The medial prominence at the first MTF joint is due to the increased prominence of the first metatarsal head(4,5,9-12).

Epidemiology

Hallux valgus deformity is relatively common, occurring in about 23% of adults aged 18 to 65 years and up to 36% of adults over 65 years and particularly in adult women occurring in up to 30%. The prevalence is higher in those who wear shoes or heels compared to the barefoot population. Women present the deformity with twice the frequency, when comparing women and men in barefoot populations (4,13).

Concomitant Disorders

Metatarsus adductus: its prevalence is high, it is thought that concomitant metatarsus adductus makes corrective surgical procedures more difficult and presents higher recurrence rates. It is related to increased forefoot adduction, loss of the buttressing effect of the lesser metatarsals and underestimation of the degree of deformity. A comprehensive approach must be taken to properly manage hallux valgus with concomitant metatarsus adductus(14,15).

Hammertoe: has a strong association with hallux valgus. It is usually considered a secondary deformity, because the hallux alters the position of the second toe. This deformity is thought to be due to the long flexor tendon dominating the intrinsic tendons.



The hallux valgus deformity does not allow normal forefoot function in gait, transferring pressure from the big toe and overloading the lesser metatarsal heads(16,17).

Achilles tendon contracture: there is a relationship between hallux valgus and a higher prevalence of Achilles tendon contracture, because a tight Achilles tendon generates greater forefoot pronation and increases valgus forces in the foot. Therefore, the peroneus longus loses its stabilizing capacity on the first metatarsal in the frontal plane, reducing the stability of the first radius and the medial column of the foot(18-20).

Medial column collapse (flatfoot): there is a relationship between hallux valgus and flatfoot deformity due to the effect on the stability of the medial column. The flat foot generates a greater pronation of the first radius, increasing the load on the medial and plantar aspect of the first radius in heel elevation. Orthotics can be used as a first line of treatment, however, they do not resolve the hallux valgus deformity(21).

Clinical Evaluation

Some of the clinical features of hallux valgus are:

- Pain in the lesser toes from hammertoe-related deformity or transfer metatarsalgia from altered gait patterns.
- Pain in the medial aspect of the forefoot.
- Persistent symptoms despite attempts to modify footwear or activity.
- Significant bulge or prominence on the medial aspect of the forefoot.
- Difficulty with some types of footwear because of the medial prominence at the first MTP joint.

On physical examination, the following should be evaluated:

- Hypermobility of the first radius.
- Varus or valgus of the forefoot/rearfoot.
- Stiffness of the subtalar joint.
- Midtarsal joint stiffness.
- Resting position of the calcaneus.
- Tibial torsion and neutral position of the calcaneus.

The evaluation can be divided into an unloaded and a loaded evaluation.

Non-Weight Bearing: the position of the hallux, with respect to the second toe, should be evaluated in the transverse plane; this can be underlying, overriding or non-contact. Lateral deviation of the MTP may be due to a subluxation of the MTP joint. It is also necessary to analyze the range of movement of the first MTP joint to know the maximum available displacement being the normal plantar flexion of less than 15 degrees and dorsiflexion of 65 to 75 degrees. Subsequently, the first MTP joint is checked for pain and crepitus, and finally the axis of motion is evaluated.

Weight Bearing: the importance of the deformity is usually more noticeable when weight bearing. An increase in hallux abduction should be analyzed, as well as medial prominence, dorsiflexion of the first MTP joint and metatarsal varus. Some complementary

laboratory studies can be considered when there is suspicion of systemic or metabolic disease, rheumatoid factor, erythrocyte sedimentation rate, uric acid, antinuclear antibody, C-reactive protein and complete blood count can be requested. If osteomyelitis is suspected, MRI or radionuclide imaging should be considered(4,5).

Radiographic Approach

Usually, a diagnosis can be established by physical examination, but imaging helps to determine the involvement of the first metatarsophalangeal joint. Initially, a simple AP and lateral loading radiograph of the foot is performed. In where a lateral deviation of the hallux can be found in the first metatarsal, being the normal angle of the hallux valgus inferior to 15 degrees and the intermetatarsal angle inferior to 9 degrees. Generally the deviation is generated transversely, however, HV deformity may result in rotation of the hallux. When the severity of the deformity is determined, the most appropriate treatment will be performed(4).

Anteroposterior, lateral and axial projections of the sesamoid under weight bearing of the affected limb should also be obtained. The hallux valgus angle, the intermetatarsal angle 1-2 (IMA) and the distal metatarsal articular angle (DMAA) are measured from the AP view (Figure 4A). The DMAA is the angle created between the distal articular surface and the longitudinal axis of the first metatarsal (Figure 5). It serves to assess the congruence of the first metatarsophalangeal joint, being less than 10 degrees normal(22,23).

Figure 4. Traditional hallux valgus measurements demonstrated on anteroposterior radiographs. Number 1 corresponds to the first-second intermetatarsal angle (IMA); number 2 corresponds to the hallux valgus angle (HVA).





Source: Ray JJ, Friedmann AJ, Hanselman AE, Vaida J, Dayton PD, Hatch DJ, et al. Hallux Valgus(5).

The axial view of the sesamoids is notable for assessing the position of the sesamoids in relation to the ridges of the first metatarsal head and for assessing sesamoid subluxation or rotation of the first metatarsal. The presence of the "round sign" assesses the shape of the lateral margin of the first metatarsal head on AP radiographs, as well as can be used to assess first metatarsal rotation. Attention should be paid to the first MTF joint for evidence of arthritic changes. Weight-bearing computed tomography (CT) is now emerging as an important tool to provide a three-dimensional analysis of hallux valgus to further elucidate the pathogenesis of the deformity(24,25).

Figure 5. Distal metatarsal articular angle (DMAA), which can be used to assess the congruency of the first metatarsophalangeal (MTP) joint.



Source: Ray JJ, Friedmann AJ, Hanselman AE, Vaida J, Dayton PD, Hatch DJ, et al. Hallux Valgus(5).

Imaging Classification Systems

It can be divided into mild, moderate and severe according to the views:

Anteroposterior: allows measurement of the intermetatarsal angle, hallux abductus angle, metatarsus adductus angle, hallux abductus interphalangeal, hallux rotation and the state of the first MTP joint.

The lateral projection: identifies the position of the first metatarsal whether elevated or in plantar flexion, in addition to the dorsal exostosis/osteophytes.

The lateral oblique projection: allows to recognize the density, uniformity and trabeculation of the bone.

The axial projection of the sesamoids with weight bearing: it aims to find subluxations of the sesamoids and degenerative changes of the crests in the joints(4).

- Grade: Hallux valgus angle (HVA) - Intermetatarsal angle (IMA)
- Normal: less than 15 degrees - 9 degrees
- Mild: 15 to 30 degrees - 9 to 13 degrees
- Moderate: 30 to 40 degrees - 13 to 20 degrees
- Severe: more than 40 degrees - more than 20 degrees

Classical grading methods use the AP view on radiographs to recognize the severity of hallux valgus in the frontal plane according to HVA, IMA and DMAA, varying somewhat according to the literature.

- Normal is defined as HVA <15 degrees, IMA <9 degrees and DMAA <10 degrees.
- Mild corresponds to HVA <20 degrees and IMA <11 degrees.
- Moderate implies an HVA of 20 to 40 degrees and an IMA of 11 to 16 degrees.
- Severe corresponds to an HVA >40 degrees and an IMA >16 degrees.

In addition, a new classification system for hallux valgus has been proposed that takes into account the complex triplanar nature of the deformity, focusing on determining the apex of the deformity using the principle of the anatomical center of rotation angulation or CORA(5).

Treatment

There are surgical and non-surgical treatments, being the latter the ones that are tried first hand, when this fails, the surgical procedure should be chosen. At the moment there is no definitive evidence that conservative treatment is effective, however, the literature still recommends using conservative therapy prior to surgery. It is essential that affected individuals experience wide shoes and braces before considering more invasive alternatives. The mission of conservative treatment is to control symptoms without correcting the anatomical deformity. Some of the non-surgical treatment alternatives are:

- Orthoses: optimizing alignment and support.
- Medial bunion pads: prevent irritation of the deformity.
- Shoe modification: wide and low-heeled shoes.
- Stretching: improving joint mobility in the affected joint.
- Analgesics: paracetamol and NSAIDs.
- Ice: to reduce inflammation.

If there is no pain control, management is considered to have failed, therefore surgical treatment may be chosen. The indication for surgery is based on the symptoms of pain and gait difficulty. The presence of arthritis and the severity of the deformity support the choice of the most appropriate procedure, since there are more than 150 surgical procedures for the correction of the deformity, however most of them present the basic approaches presented below.

Osteotomy: a cut is made in the first metatarsal bone and it is placed in a less adducted position. The cut differs in position and shape depending on the surgical technique. In Wilson's osteotomy



a straight cut is used, in V-osteotomy a wedge-shaped cut is made. The site of the cut can be an osteotomy proximal to the base, scarf osteotomy or in the diaphysis and distal osteotomy at the neck. There are studies where V-osteotomy outperforms the other treatment strategies, showing a normal hallux abductus angle at 12 months, with a satisfaction rate of 80%. However, about 61% of individuals presented moderate problems with footwear. Minimally invasive techniques are now gaining popularity. A comparative study between open osteotomy and minimally invasive surgery revealed no significant differences in terms of success rate, however surgical time is decreased and scarring is less in minimally invasive surgery, and similar clinical and radiographic results were also found between the two treatment groups.

Arthroplasty: the mobility of the first MTP joint remains, as long as the pain is improved by replacing the joint with an implant or removing the joint. Hemiarthroplasty can be performed as well as total arthroplasty. Hemiarthroplasty maintains finger length and requires less bone resection. An interpositional arthroplasty is used in people with severe hallux rigidus which helps maintain the range of motion of the joint. The most common arthroplasty is the Keller resection, in which up to half of the proximal phalanx is resected to increase dorsiflexion and decompress the joint. Following Keller arthroplasty surgery, high satisfaction rates of up to 75% and higher rates of total pain relief are found, with 12% showing increased pain.

Soft tissue procedures: the procedure that primarily involves soft tissues is the McBride procedure, which removes the sesamoid of the fibula, generating flexion of the interphalangeal joint, hyperextension of the MTP joint and medial deviation of the hallux. A comparative study between V-tenotomy plus adductor and V-osteotomy alone showed minimal difference in mechanical correction and no difference in patient satisfaction.

Arthrodesis: fuse the MTP joint in the correct position. This is only done with a significantly degenerated joint and with low probability of functional improvement, mostly used in the elderly. About 81% of those operated showed improvement in pain and ambulation. However, there are complications such as pseudarthrosis. Another arthrodesis alternative is the fusion of the first metatarsal-cuneiform joint, which is frequently reserved for cases of hypermobility of the first radius and strongly increased hallux valgus and first intermetatarsal angle. Currently, arthrodesis at this level has been modified to address triplanar hallux valgus deformity with favorable functional results, reduced recurrence rates and early return to weight-bearing activities.

There are few studies evaluating the efficacy of these procedures. However, as surgical techniques have improved, the satisfaction of the affected individual has also improved. Postoperative care is determined primarily by the type of procedure performed. However, a dressing is usually placed at surgery to provide corrective forces. The dressing also compresses the surgical wound to decrease postoperative edema. The weight-bearing

status will depend on the procedure and technique, but is usually limited in the first two weeks. Following suture removal, the affected individual can begin range-of-motion exercises and increase weight-bearing activities. Long-term monitoring is aimed at understanding the exact etiology to ensure that the deformity does not recur. Post-surgical patients may benefit from orthotic devices(4,26-30).

Differential Diagnosis

- Morton's neuroma.
- Osteoarthritis.
- Hallux rigidus.
- Turf toe.
- Gout.
- Freiberg's disease.
- Septic joint.

Prognosis

The general prognosis is good. Individuals in the beginning should perform a trial of conservative treatments, if pain and functionality do not improve, surgery should be chosen. Postoperative recovery depends on the procedure and technique used. In any bone procedure, such as an osteotomy, healing of the complete bone union may take 6 to 7 weeks and may be longer in smokers. Usually the return to work activities can be done between 6 and 12 weeks after surgery. It has been shown that improvement takes up to 1 year postoperatively.

Complications

Post-surgical complications are different according to the procedure and the surgical technique performed. Among the most frequent complications are pseudarthrosis of bone, hematoma, numbness, osteomyelitis, cellulitis, avascular necrosis, hallux varus, limited joint range of motion, bursitis, hammertoe deformity of the second toe, degenerative disease of the metatarsal head, central metatarsalgia, medial dorsal cutaneous nerve entrapment, MTP joint synovitis and recurrence. Similarly, the incidences of recurrence vary according to the procedure and range from 10 to 47%. The etiology is usually multifactorial, however it usually includes poor surgical technique, anatomical predisposition, compliance with post-surgical instructions and medical comorbidities(13,31-34).

Recurrence is the most common complication, with rates around 8% and 78%. Avascular necrosis is an infrequent but devastating complication(35-37).

CONCLUSIONS

Hallux valgus, or bunion, is the valgus deviation of the first orthotic with a varus deviation of the first metatarsal. The establishment of a diagnosis can be made through physical examination, however imaging helps to determine the involvement of the first metatarsophalangeal joint. At the moment there are several surgical techniques developed to restore the deformity. Hallux valgus corrective surgery is effective, presenting high rates of pain relief, deformity correction and patient satisfaction, however it is not free of complications.



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A SEQUENTIAL EXPLANATORY APPROACH ON THE RELATIONSHIP BETWEEN SOCIAL LITERACY AND STUDENT ENGAGEMENT AS MEDIATED BY ENGLISH SPEAKING SKILLS

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ABSTRACT

The purpose of this study was to determine the mediating effect of English speaking skills (ESS) on the relationship between social literacy (SL) and student engagement (SE) among English major education students in the private Higher Education Institutions (HEIs) in Region XI. By which, the study used a sequential explanatory mixed methods research design having a total of 300 English major students from the different private tertiary institution in Region XI as the research respondents. For the data analysis, medgraph was employed in determining the mediating effect of ESS on the relationship between SL and SE which was found to be significant partial mediation in this study. Then, through interviews and focus group discussion with 17 participants taken from the quantitative respondents, data were integrated with the findings in the quantitative aspect of the study. The participants confirmed the relationships and the functions of the variables in the mediation model. With the confirmation, it can be gleaned that there is substantial evidence that ESS is one of the reasons why SL could influence SE among English major students in the private tertiary institutions in Region XI as demonstrated in the partial mediation model. Thematic analysis of the qualitative data unveiled the essential themes generally confirming the connecting-merging-confirmation surfaced as the nature of data integration.

KEYWORDS: Applied linguistics, English speaking skills, students' social literacy, student engagement, English major students, Philippines.

INTRODUCTION

Student engagement relates to the quality of education and predicts students' essential life skills. Hence, understanding student engagement is important in determining how to provide high quality teaching for students (Steinbrenner & Watson, 2020). However, due to the shift on online class meetings, student engagement has become a problem across the globe. In online class meetings, low level of engagement among students has been observed in several countries because students usually lose interest in learning. This issue was attributed to the lack of clear understanding among teachers on how students will be engaged in an online set-up (Bundick et al., 2019).

In North America, based on a poll of 3,089 students in higher education, 78% of the students mentioned that online learning is not engaging as it is not in line with their learning needs and interests. While 75% mentioned that they most opted to have in-person meetings with classmates and professors (Read, 2020). Then, a study among 97 university presidents by Higher Education (2020) showed that 81% said that COVID-19 made it difficult to retain student participation while relocating classrooms via online among universities in United States. In Saudi Arabia, Alshahrani (2021) studied student engagement and students' readiness of using e-learning. The study showed that the students were ready to shift to e-learning systems. But

the study also found that students do not effectively interact with teachers and engage in discussion during virtual classes. In Thailand, student engagement is not always easy to achieve. It necessitates a tremendous commitment on the part of the teachers. Hence, teachers must be willing to grow into thoughtful and open-minded individuals (Ginting, 2021).

In the Philippines, specifically in Misamis Occidental, the passing rate across disciplines is 17.66% and the passing rate for board exam is 36.28% which is below the average national rate. The author concluded that this statement shows level of evidence in terms of engagement among students (Enerio, 2021). Further, in Camarines Sur, the study of Delfino (2019) found that student engagement is low among college students especially that there are only few students who are participating in class. As to their behavioral engagement, only few are discussing their lessons with others or peers. As to their cognitive engagement, there are only few students who are having serious conversations with others. While as to their emotional engagement, there are only minimal conversations relating to their personal values in life.

As such, it was emphasized that the descending percentage of students' engagement in classroom activities is alarming for teachers. Family, personal, and school factors all affect student



engagement (Lloyd, 2014). Further, the study of Az-Zahra et al. (2018) pointed out some indicators for student disengagement from learning like illiteracy, motivation, bad communication with peers, low social literacy, and changes with attitudes. While according to Hurst et al, (2013), one must actively participate in social contact with others for reading, writing, speaking, listening, and thinking to be achievable. This is also for the learners to acquire and improve their social literacy. Additionally, those who are socially adept are also active learners who pick up information when given the chance to connect with others and participate (Marx et al., 2017). Lastly, an intellectually engaged student must talk to express themselves. Their inability to communicate clearly in English prevents them from participating fully in class discussions as well as in expressing their thoughts and ideas (Hui, 2017).

From the different readings presented above, it is now in context that the researcher is interested to push through this study about student engagement as it is an evident problem in global, national, and local setting because of the sudden shift of the educational system brought by the pandemic. Hence, there is an urgent need to conduct this study to address this ongoing issue and to add to the growing body of literature related to SE in different educational context. Aside from that, despite the many studies conducted showing the bivariate relationships between SE and SL (Ngoyi et al., 2014) and SE and ESS (Binnendyk, 2020), previous researchers have not come across of studying the same variables and research design used in the present study which was published in the Philippines. On the other hand, there is a published and existing study about the effect of ESS on the relationship between SE and SL (Rulona & Bacasmot, 2023), but it was conducted using a quantitative research design in descriptive-correlational approach. Hence, it is now the present study which will add new body of knowledge using these variables in different approach. This is because the study used a mixed methods design which was conducted in the whole Region XI having the tertiary English major students as respondents and participants.

Lastly, investigating the relationship of SE and students' SL as mediated by ESS is expected to give essential data and new literature in understanding students' engagement and socialization with others needed to improve their English speaking skills. The outcomes and findings of the present study may help academic institutions work toward the utilization of the findings and results most especially in enhancing the social skills and literacy among learners and on developing the speaking skills of the students using the English language. Finally, results of this mixed-methods study will be disseminated to the college English major students, parents, educators, academic institutions, faculty, and other concerned authorities and entities like curriculum planners and developers. This will be done by giving them a copy of the results and findings of the study, a separate discussion of the results and findings in a video presentation done by the researcher will also be given, and conducting of seminar and orientation by the researcher to the different concerned authorities may be conducted. Consequently, it will be presented at the international, national, and local conference and will be

transformed into a publishable article so that there will be more who will benefit from the study.

OBJECTIVES

This mixed-methods study aims to identify the level, the significant relationship, and the mediating effect of ESS on SL and SE among English major students in Region XI. Specifically, it seeks to answer the following research objectives:

1. What is the level of social literacy, student engagement, and English-speaking skills among tertiary English major students in Region XI?
2. What is the significance of the mediating effect of English-speaking skills on the relationship between social literacy and student engagement among tertiary English major students in Region XI?
3. What are the standpoints of the participants on the salient points of the quantitative results?
4. How do the qualitative results explain the quantitative results of the study?

METHODS

This study used mixed methods research design in a sequential explanatory approach through mediation analysis and phenomenology. As defined by Johnson et al. (2017), mixed methods used quantitative and qualitative methods in a single or multiphase study. To be specific, the study examined the level, the significant relationship, and mediating effect between ESS on SL and SE. Also, the researcher used descriptive statistics like mean and standard deviation to describe the level of SL, SE, and ESS among students in Region XI. The researcher also used inferential statistics like Pearson-r, multiple regression, and Medgraph using Sobel Z-test. Pearson-r for determining if the relationship between variables was significant; multiple regression analysis for predicting the value of students' engagement taken from ESS and SL; and lastly, medgraph for the mediation analysis of ESS on the relationship of SL and SE. For the qualitative part, thematic analysis was used to identify emerging themes that will substantiate the findings in the quantitative part.

Additionally, the study was conducted in Region XI which is officially designated and named as the Davao Region. Specifically, this study was conducted in the different Higher Education Institutions (HEIs) in the said region specifically in all private academic institution. The study covers five (5) different provinces namely, Davao de Oro (Compostela Valley), Davao del Norte, Davao del Sur, Davao Occidental, and Davao Oriental. Two (2) HEIs were taken as locale in each province. In selecting the respondents, the researcher used stratified random sampling to recruit 300 students from the different private HEIs in Region XI who are all English major students taking Secondary Education.

RESULTS AND DISCUSSIONS

Level of Social Literacy, Student Engagement, and English-Speaking Skills

Reflected in table 1 is the overall mean rating of social literacy which is 4.26 with a descriptive equivalent of very high which means it is always manifested by the students. This is based on



their responses in intellectual, social, cooperation, and social attitudes and values as indicators of the said

Table 1
Level of Social Literacy, Student Engagement, and English-Speaking Skills

Main Variables/Indicators	Standard Deviation	Mean	Descriptive Level
Social Literacy	0.44	4.26	Very High
Intellectual Skills	0.58	3.86	High
Social Skills	0.56	4.44	Very High
Cooperation Skills	0.65	4.18	High
Social Attitude and Values	0.50	4.55	Very High
Student Engagement	0.44	4.26	Very High
Cognitive Engagement	0.52	4.28	Very High
Affective Engagement	0.55	4.44	Very High
Behavioral Engagement	0.56	4.01	High
Social Engagement	0.54	4.32	Very High
English Speaking Skills	0.49	3.71	High

variable. While the overall mean rating of student engagement is 4.26 with a descriptive equivalent of very high which means that it is always observed by the students. This was based on their responses to the indicators of the variable including cognitive, affective, behavioral, and social engagement. Lastly, the overall mean rating of ESS is 3.71 with a descriptive equivalent of high. This means that that the level of English speaking skills among English major students in Region XI is oftentimes practiced.

These significant results relate to the findings of the study of Rulona and Bacasmot (2023) which found that the level of SL in terms of intellectual skills, social skills, cooperation skills, and social attitude and values among students in Davao Oriental is high which means that SL is oftentimes observed on many occasions. Further, Quin (2017) also found that social and behavioral engagement has an impact on student participation since both enable possibilities for developing relationships, setting of clear limits and opportunities, and opportunity of collaborating with others and with personal interaction. While

Dwivedi et al. (2019) explained that student engagement is essential as it facilitates their attentiveness towards their teachers. Hence, the acquisition of English-speaking skills is important on their active engagement in diverse learning activities.

Mediating Effect of English Speaking Skills on the Relationship Between Social Literacy and Student Engagement

Before determining the mediation model, correlation between variables was computed to determine its significance. In the case of the said three variables, the correlations are all significant as shown in Table 2. It can be depicted from the result that there is a significant relationship between SL and SE since shown in the table that the *p*-value is less than 0.05 for its correlation coefficient, $r=.668$. On the same manner, results also showed a significant relationship between SL and ESS ($r=.529, p<.05$). Likewise, it was found that ESS and SE have a significant relationship since the *p*-value is less than 0.05 for its correlation coefficient, $.560$.

Table 2
Correlations Among Identified Variables

Variables	Student Engagement			English Speaking Skills		
	r-value	p-value	Sig. level	r-value	p-value	Sig. level
Social Literacy	.668	.000	Sig	.529	0.000	Sig
English Speaking Skills	.560	.000	Sig			

The results as shown in Table 3 are classified as Steps 1, 2, 3 and 4. In Step 1 (Path C), it was found that SL significantly predicts SE ($B=0.509, p<0.05$). The beta coefficient implies that in every unit increase in SL, there corresponds a .509

increase in student engagement. While, in Step 2 (Path B), ESS as the mediating variable significantly predicts SE ($B=0.255, p<0.05$). In every unit increase in ESS, there corresponds a .255 increase in student engagement. While for Step 3 (Path A), SL



significantly predicts ESS ($B = .586, p < .05$). For every unit increase in SL, it can result to .586 increase in English speaking skills. Moreover, Step 4 revealed a total r-Square of .414, which indicates that 41.4% of the variation of SE can be attributed to the combined influence of SL and ESS. Hence, 58.6% of the

variation can be inferred to be the variation which is not covered in this research. Meanwhile, the significance of the three paths warranted the use of medgraph employing Sobel z-test which is a test of mediation used in analyzing the significance of the mediation effect.

Table 3
Date Entry for the Different Paths

Independent Variable	(IV)	Social Literacy
Dependent Variable	(DV)	Student Engagement
Mediating Variable	(MV)	English Speaking Skills

STEPS

1. Path C (IV and DV)		
Student Engagement Regressed on Social Literacy		
B (Unstandardized regression coefficient)		0.509
e (Standard error)		0.047
Significance		0.000
2. Path B (MV and DV)		
Student Engagement Regressed on English Speaking Skills		
B (Unstandardized regression coefficient)		0.255
e (Standard error)		0.042
Significance		0.000
3. Path A (IV and MV)		
English Speaking Skills Regressed on Social Literacy		
B (Unstandardized regression coefficient)		0.586
e (Standard error)		0.054
Significance		0.000
4. Combined Influence of MV and IV on DV		
Student Engagement Regressed on English Speaking Skills and Social Literacy		
English Speaking Skills:		
B (Unstandardized regression coefficient)		0.255
SE (Standard error)		0.043
Beta (Standardized regression coefficient)		0.286
Part Correlation		0.718
Social Literacy:		
B (Unstandardized regression coefficient)		0.509
SE (Standard error)		0.047
Beta (Standardized regression coefficient)		0.517
Part Correlation		0.687
Total r Square		0.414

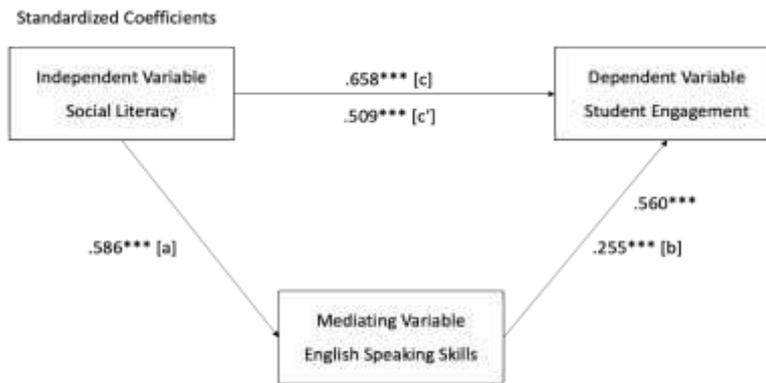
For the triangulation of the gathered data, further mediation analysis was conducted using a medgraph involving Sobel test to assess the significance of the mediation effect. After the analysis, it showed in the model that SL influenced SE by a total of .658 with the inclusion of ESS as the mediating variable. The direct influence of SL to SE is only .509 and the remaining .149 is because of the inclusion of English speaking skills. This is an

indirect influence which passes through ESS going to student engagement. This means that the influence of .658 is strong because of the help of ESS. If ESS is removed, there is still a relationship (.509) but not strong. With this observed, this means that there is a partial mediation in the result since the mediating variable is only responsible for a part of the relationship between SL and SE which is a total of 0.149.



Results

Significance of Mediation		Significant
Sobel z-value	7.6656051	p=0.000
95% Symmetrical Confidence Interval		
Lower	0.094	
Upper	0.205	
Unstandardized indirect effect		
a * b	0.148	
se	0.028	
Effect size Measures		
Standardized Coefficients		
Total:	0.658	
Direct:	0.509	
Indirect:	0.149	
Indirect to Total Ratio:	0.226	



Note: The numerical values in the parentheses are beta weights taken from the second regression and the other values are zero order correlations.

These findings on the mediating effect of ESS on the relationship between SL and SE confirm the result of the study of Nemetz et al. (2017), which found that social interaction and student engagement with varied learning activities is visible and tangible in the teaching-learning process. Similarly, it was emphasized by Cole et al. (2019) that one’s social literacy contributes a lot to one’s success in learning through different student engagements inside the classroom. While Istiara et al. (2023) also explains that students active engagement constitutes on their fundamental knowledge of speaking using the English language. Then Etodike et al. (2020) elucidated that English speaking skill is linked to social skills as it aids

individual confidence and social adjustment specifically interacting with other people using the English language.

Standpoints of the Participants on the Quantitative Results Regarding the Level of the Three Variables

Illustrated in Table 4 are the standpoints of the participants on the quantitative results regarding the students’ SL, SE, and ESS. The essential themes generated are as follows: confirmed very high rating of SL, confirmed very high rating of student engagement, and confirmed high rating of English speaking skills.

Level	Essential Theme	Typical Reason
Social Literacy (Independent Variable)	Confirmed Very High Rating of Social Literacy	Constant communication with others.
		Interacting with other students.
		Communicating with students and cooperating teachers.
		Understanding the feelings, insights, and opinions of others.
		Understanding social issues and engaging in social media.
Student Engagement (Dependent Variable)	Confirmed Very High Rating of Student Engagement	Being a student leader in school.
		Participating in the different classroom activities.
		Facilitating different school activities.
		Joining in the different school activities.
		Joining National event and activities.
English Speaking Skills (Mediating Variable)	Confirmed High Rating of English Speaking Skill	Talking with classmates in Vernacular.
		Practicing code switching during classroom discussion/activities.
		Being not able to express oneself because of English language.
		Preparing oneself in the future in landing a job.



These findings support the proposition of Stadler et al. (2022) which explained that intellectual skill is regarded as one of the most reliable indicators of student engagement. Also, the study of Kilic and Aytar (2019) emphasized that group collaboration, social interaction, group activities, helping others, and talking strengthened social skills and collaboration among students. Meanwhile, the study of Abraham (2019) recommends that teachers and students must use varied language activities during classroom discussions to attain engagement. In which, Bond and Bergdahl (2022) emphasized that social engagement involves learners' interaction, support, and involvement with learning activities. In the classroom, a student may tell a teacher

about their personal experience which teachers may relate it to the lesson.

Standpoints of the Participants on the Mediating Effect of English Speaking Skill on the Relationship between Social Literacy and Student Engagement

Shown in table 5 are the standpoints of the participants on the mediating effect of ESS on the relationship between students' SL and SE in Region XI. The table further reveals essential themes: confirmed relationship of students' SL and SE, and confirmed mediating effect of ESS on the relationship between SL and SE.

Level	Essential Theme	Typical Reason
Significant Relationship of Social Literacy (SL) and Student Engagement (SE)	Confirmed Relationship of SL to SE	SL is important for a student to communicate.
		Student-Teacher communication encourages classroom participation.
		Talking in vernacular enables the students to communicate.
		High level of SL allows the student to engage.
Significant Mediating Effect of ESS on the Relationship Between SL and SE	Confirmed Mediating Effect of ESS between SL and SE	The mediating model is credible.
		SL alone cannot fully influence SE without the help of ESS.
		SL influenced the engagement of students.
		Even without ESS, connection between SL and SE is possible.
		SL has greater contribution or effect with SE.
		SL inspires student to have engagement which will enhance their ESS.

Barua et al. (2020) highlighted that social interaction between learners affects students' efficient behaviors and engagement for learning. When students are engaged, they are enthusiastic about their schooling and show no doubt to learn. For Trowler (2022), engagement and social interaction of the students enhance their academic results as well as their skills and capabilities that reflects goods performance of the school. While Jeyagowri (2018) highlighted that social literacy is an essential skill and techniques in making the students confident in speaking the language. Hence, students will be more engaged in the teaching and learning process. Lastly, Wang and Neihart (2015) emphasized that students perceived social skill allows

them to involve himself/herself in a communicative process using English language. By which, it is their social literacy that enables them in initiating the speaking process when they are engaging with other people like their peers and classmates.

Data Integration of Quantitative and Qualitative Results

Illustrated in table 6 is the joint display of data and information gathered for both quantitative and qualitative results or mixed methods design, specifically the explanatory sequential approach.



Research Area	Quantitative Results	Qualitative Results	Nature of Integration
1.1 Level of SL	- Descriptive level of SL is very high with an overall mean rating of 4.26. This means that SL of the respondents is always manifested. (Refer to Table 1)	- Informants and participants confirmed the very high rating of SL in the quantitative result. Based on the interviews and FGD, it could be gathered that the typical reason for the confirmation is that they have good social relationship with others. (Refer to Table 5)	Connecting-Confirmation
1.2 Level of SE	- Descriptive level of SE is very high with an overall mean rating of 4.26. This means that SE of the respondents is always observed. (Refer to Table 1)	- Informants and participants confirmed the very high rating of SE in the quantitative result. Based on the interviews and FGD, it could be gathered that the typical reason for the confirmation is that the students are engaged in the classroom and in the school in general. (Refer to Table 5)	Connecting-Confirmation
1.3 Level of ES	- Descriptive level of ESS is high with an overall mean rating of 3.71. This means that ESS of the respondents is oftentimes practiced. (Refer to Table 1)	- Informants and participants confirmed the high rating of ESS in the quantitative result. Based on the interviews and FGD, it could be gathered that the typical reason for the confirmation is that students oftentimes used the English language inside and outside the classroom to communicate with other people. (Refer to Table 5)	Connecting-Confirmation
2.1 Relationship Between SL and SE	Significant relationship ($p < 0.05$) exists between SL and SE ($r = .668$) (Refer to Table 2 and Figure 5)	Informants and participants expressed their confirmation on the importance of SL to SE, as expressed in their statements in Table 6. (Refer to Table 6)	Connecting-Confirmation
2.2 Mediating Effect of ESS on the relationship between SL and SE	Significant partial mediating ($p < 0.05$) effect of ESS on the relationship between SL and SE ($z = 7.665$) (Refer Computation in Figure 5)	Most of the informants/ participants expressed their positive ideas on the support of ESS to SL in influencing SE. (Refer to Table 6)	Connecting-Confirmation

These finding is relative to the study of Brina and Delahunty (2021) which explained that instructors must encourage students to work together and communicate throughout the tasks inside the classroom. This is because partnerships and collaboration boost student confidence and social literacy. Also, Bernstein (2022) explained that engaged students are getting outstanding marks and doing well in school more often than those disengaged ones. Meanwhile, Nyathi and Sibanda (2022) explained that the school must prepare and give learners quality education through effective learning resources that boost students' optimum knowledge and skills. With this, students will be actively engaging in their educational pursuit. Lastly, Lastly, Jeyagowri (2018) pointed the importance of social literacy among students speaking skills in English. It was highlighted that social literacy is an essential skill and techniques in making the person confident in speaking the language.

CONCLUSION

After a thorough analysis of the data gathered in this study, conclusions were drawn in answer to the set research questions and objectives of the study.

1. The level of social literacy among English major students is very high which means that it is always manifested; the level of student engagement among English major students is very high which means that it is always observed; and the level of English speaking skills among English major students is high which means that it is oftentimes practiced.

2. There is a significant relationship between social literacy and student engagement among English major students. Also, results revealed that English speaking skills is a partial mediator on the relationship between social literacy and student engagement.

3. In the study, the quantitative results were further substantiated by the essential themes that emerged during the thematic analysis of the qualitative data. Generally, the results confirmed the quantitative aspect of the study based on the responses of the participants and informants during the interview.

4. During the integration of data from the quantitative phase and qualitative phase, it was found that the findings are connected which means that the qualitative result connected the quantitative results. The result provided an in-depth understanding on the level of the three variables under study



which are the social literacy, students engagement, and English speaking skills. Likewise, the themes identified have helped strengthen and explain the profoundness of the level of the variables under study as well as the mediating effect of the English speaking skills on the relationship between social literacy and student engagement among tertiary private schools' English major education students in Region XI.

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NATURAL LANGUAGE PROCESSING EMPLOYING SENTIMENT ANALYSIS ON THE PUBLIC VOICE OF FILIPINOS DURING CRISIS SITUATIONS

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ABSTRACT

Aims: This Natural Language Processing study examined the sentiments of Filipinos in crisis situations using Twitter data. The goal was to identify the prevalent emotional tone, categorize sentiments, and explore variations across different types of crises.

Study design: Qualitative Research using Natural Language Processing

Place and Duration of Study: Philippines, 2019 - 2023

Methodology: There were 10,000 tweets that narrate the public voice of Filipinos during crisis situations that were analyzed using sentiment analysis. They were mined using Apify Easy Twitter Search Scraper. Results were analyzed using Orange Software and Plutchik's Emotional Wheel via Box Plot.

Results: Results show that the dominant public voice is neutral, this is followed by positive and negative tones. This means that Filipinos mainly share information, describe their situations, and seek clarifications during crises. It is further revealed that joy was the most dominant emotion, followed by sadness, trust, surprise, fear, disgust, anticipation, and anger. This means that even in crisis, Filipinos wish people's safety, pray for the situation and give jokes to lighten the mood. The order of dominant emotions or tone for earthquake, inflation, and typhoon followed a pattern of neutral, positive and negative. The pandemic stood out, featuring a dominant neutral tone, followed by negative and then positive.

Conclusion: These Findings Offer Valuable Insights for Refining Government Crisis Response Strategies. Additionally, This Underscores the Significance Of Recognizing And Understanding Emotions In Communication, Providing Valuable Guidance For Educators And Students.

KEYWORDS: Education, applied linguistics, natural language processing, sentiment analysis, public voice, emotional tone, Philippines

1. INTRODUCTION

Public voice refers to the expressions of emotions and concerns conveyed by the people. This is posted on social media when natural disasters, geopolitical conflicts and inflation occur [1], [2], [3]. This type of posts narrates people's sentiments [4] and asks for government's response [5]. While it is helpful in crisis management, studies revealed that most sentiments convey negative emotions [6], [7] and some spread misinformation [8], [9] exacerbating societal polarization [10], [11]. Hence, the need to study on the language used and the emotions they convey so the appropriate crisis response may be done by the government.

Globally, public voice has been used to express sentiments among people in times of crises [12]. However, certain posts have a tendency to be excessively emotional, expressing unfavorable feelings and thoughts. For instance, research of [13] explicated that during the COVID-19 pandemic, social media was used to

disseminate confusion and distrust in the government's response. In Kenya and South Africa, it was found that negative content during the COVID-19 pandemic is more prevalent than that of the positive content; thus, influencing others to have the same sentiment [14], [15]. As such, Weller and Colleoni (2023) concluded that around the world the proportion of negative tweets has increased by 20% in the past five years.

More so, social media has been an important platform for disseminating information during crisis situations in the ASEAN context [16]. However, [17] and [18] observed that online public expressions are occasionally employed to shape the public's viewpoint. As [19] revealed, in Indonesia, the use of emoticons in posts contribute to manipulate public opinion. Certain emoticons are used to express anger and frustrations which are meant to discredit government and authorities. This is similar to what is practiced in Malaysia of which figurative language, like



metaphors, are used to manipulate public opinion on social media during crises [20]. Hence, certain emotive language and icons are used to influence the public's perception.

Further, during a crisis or calamity in the Philippines, social media is a common platform for expressing different sentiments and opinions. One example of this was during the Typhoon Ulysses in November 2020, where trending tweets included phrases like "Nasaan ang pangulo" (Where is the president?). Furthermore, the research carried out by [21] amid the COVID-19 pandemic discovered that social media content was predominantly characterized by expressions of frustration and disappointment. This was frequently conveyed through expressive language and exaggeration, intending to underscore the gravity of the situation. Likewise, during the Taal eruption in 2020, [22] noted that social media posts conveyed a sense of emergency and alarm, utilizing emotive language and hyperbole to highlight the gravity of the situation.

While several public voices available online tend to be too emotional that negatively influence the perception of the people, there are also several posts that aim to tell the true situation of the affected people. Because of that, this study was conducted. Through its result, it would reveal the overall emotion and sentiments of the affected populace. With that, government officials may be able to look into and improve the way they deliver their service in times of crises.

This study particularly explored on the language used in expressing the public voice of the people through Natural Language Processing (NLP) using Sentiment Analysis (SA). NLP was used to scrutinize the sentiments of social media users as this works best in analyzing and disseminating a wide range of information of natural language that is difficult for humans to do [23] Further, SA was the technique employed to examine the text mined from a variety of sources like social media platforms, chatbot, conversations, blog posts, and email [24]. Hence, the plethora of public voice of the people during crisis situations was examined so the real emotion and message was revealed.

This study provided data for the readers on the dominant sentiment of the people concerning the government's response during crisis situations. As such, it filled the data gap because the researcher had not encountered any study conducted using NLP and SE analyzing the public voice of the Filipinos in times of crisis being contextualized in the field of linguistics. More so, this study filled the practical gap as this provides new information that is relevant to government's crisis management and response. The result is meant to be disseminated by presenting it through research forum and by publishing it on a reputable or refereed journal so that the public will see the importance of expressing their public voice and the government will improve their delivery of service.

2. RESEARCH GOALS AND OBJECTIVES

This study employed Natural Language Processing in the parlance of Sentiment Analysis to document and analyze the public voice of the Filipinos posted on social media during crisis situations. It aimed to determine the emotions conveyed by these sentiments. Specifically, it sought to answer the following questions: What is the dominant public voice of the Filipinos during crisis situations? What are the types of emotional tone of the public voice of Filipinos during crisis situations? How do these sentiments vary across different types of crisis situations experienced by Filipinos?

3. METHODOLOGY

3.1 Research Design

This research used Natural Language Processing (NLP) approach employing the techniques of Sentiment Analysis. NLP is considered as suitable approach since the primary goal of this research was to analyze the tweets of Filipinos in the occurrence of four types of crisis situations. The data subjected to analysis in this study covered a large number of tweets. Further, sentiment analysis was the appropriate method used since the objective was to discover the underlying emotions of Filipinos on the Filipinos' public voice. This approach was employed to determine the dominant emotional tone and the variation of these emotions across different types of crisis situations.

3.2. Research Material

The research material of this study were tweets of Filipinos in times of crisis situation particularly during typhoon, earthquake, increase of prices of commodities and pandemic. Tweets were the sole materials of this study as this document the public voice of the entire populace since in this platform a topic that hypes in a particular situation trend and become a most talked about discussion in that particular event.

3.3. Data Collection

In conducting this study, the researcher maintained ethicality and trustworthiness to safeguard the involved organizations' safety and welfare during data gathering. Before conducting the study, he secured letter of implementation from the Research Ethics Committee (REC) and an endorsement letter to conduct the study from the University of the Immaculate Conception Graduate School's Dean. After he received a go signal to conduct his study, collection of research materials commenced. Then, he scheduled a meeting with his adviser to seek advice on the processes to take in conducting the study, which helped me develop a detailed plan. When permission was granted, the public voice of Filipinos during crisis situations were collected using Twitter Search Scraper. After which, the data were placed in a database. Then, they were carefully read to determine if they relate to the study or not. When data cleaning was done, the datasets were run in Orange Software to analyze the dominant type of public voice and the varying types of emotion conveyed across different crisis situations.



3.4. Data Analysis

To assist in answering the research questions in the study, several steps were followed using Orange Free Software. The following were followed based from [25]: Data Collection, Data Preprocessing, Text Mining, Feature Selection, Data Visualization, Modeling and Analysis, and Evaluation and Interpretation.

4. RESULTS AND DISCUSSION

4.1. Dominant Public Voice of Filipinos during Crisis Situations

The dominant public voice of the Filipinos in times of crisis situations is neutral with a number of tweets of 7,646 having an equivalent percentage of 76.48. This is followed with positive voice with 1,491 number of tweets having an equivalent percentage of 14.91% and the last one is negative voice with 862 number of tweets with an equivalent percentage of 8.62%.

The data signifies that despite the calamities and difficulties experienced by the Filipinos during crisis situations, they remained to have neutral sentiments. Thus, the tweets during crisis situations are more of stating their observation, asking questions, and narrating their experience. The dominant type of tweets of Filipinos in times of crisis situations provide factual information or descriptions, express neutral opinions or assessments, and avoid emotional language. This is exemplified by TT 40 when it focuses on recounting events and actions rather than expressing personal feelings or opinions further supports its neutral tone, making it a straightforward and informative communication about the community's resilience during a challenging situation.

The next type of public voice of Filipinos that dominate during crisis situations is positive. It can be noted that despite the calamities or the misfortune that they experience, they remain to have positive outlook in life. They wish for the safety of everyone and use positive language and words. Their tweets are expressing hope and trust in the midst of crisis situations. This is conveyed by PT 108 as the author expresses hope that officials are actively working to prevent the entry of the virus into the country. The

concern for the well-being of the Philippines and its people, particularly the poorest of the poor, conveys a sense of empathy and a desire for a positive outcome.

The last dominant public voice conveyed by Filipinos in times of crises is negative. As indicated, only 8.62% of the tweets contain negative emotions which convey anger, fear, frustration and sadness out from the crises transpiring. This is illustrated by PT 105 as its overall tone is marked by pessimism and frustration, emphasizing a grim outlook on the current state of affairs in relation to COVID-19 in the country.

The result of this study is congruent to the findings of [26] and [27] when they examined posts during the COVID-19 pandemic. It was revealed that during this crisis situation, people convey neutral tone as they are more of sharing news articles and government announcements. Also, some other posts are more of expressing support and advice on how to stay safe. Similarly, the findings of this study support to that of [28]. They found that the overall emotional atmosphere of short video comments on the Zhengzhou flood was neutral, with 39.2% of comments expressing neutral emotions. It was further found that these comments expressing neutral emotions relay information and experience which do not intend to criticize nor appreciate government or any entity.

More so, this study backed up the result of those [29] when they explicated that in the occurrence of earthquake, communication channels like social media play a great role in dissemination of information. The affected communities rely on public channels as social media, emergency hotline, and community radio to voice their immediate needs for food, water, shelter, and medical assistance. Since this study revealed that the most dominant tone among the sentiments of Filipinos is neutral, it can be surmised that it affirms to what [30] and [31] discovered. They expounded that neutral tone would emerge on the expressions of sentiments among Filipinos during crisis situations. Filipinos tend to avoid expressing strong emotions in both face-to-face and online interactions even in times of crisis. They do this in order to maintain politeness and to avoid conflict.

Table 1. Dominant Public Voice of Filipinos during Crisis Situations

Type of Public Voice	Number of Tweets	Sample Tweets
Neutral	7,646	<i>I think not all, I'm from Philippines also in western Visayas. Here in our city, we work as one, we helped each other even though we don't recognize each other. I can prove it when our city hit by Bagyong Odette, and don't have any signals, we stayed in our city ground as one. (TT 40)</i>
Positive	1,491	<i>Thank God, we are still currently safe, but I hope the officials are doing their thing to prevent the virus from entering the country because the Philippines cannot afford to go through another round of a pandemic with the problems that we're currently facing, especially for the poorest of the poor. (PT 108)</i>
Negative	862	<i>The Philippines about to get fucked real hard by COVID-19. The lockdown is useless. (PT1051)</i>
Total number of Tweets	10,000	



4.2. Types of Emotional Tone of the Public Voice of Filipinos during Crisis Situations

Utilizing Pluchik's [32] Wheel of Emotion further determine the emotional tone of public voice of Filipinos during crisis situations. The data were categorized using the Box Plot of Orange Software. This was done to classify the words used in the tweets and to identify where do they belong according to the eight emotions; namely, anger, disgust, fear, joy, sadness, surprise, trust, and anticipation.

From among the emotions mentioned, it was revealed that joy has the highest number. It is comprised of 3,861 number of tweets. This is followed by sadness with 3,522. Then, trust is the third accounting to 1,434. The fourth is surprise which has 759 number of tweets. The fifth one is fear with 356 number of tweets. The sixth one is disgust with 144 number of tweets. Then it is followed with anticipation as the seventh with 67 number of tweets and lastly anger with 35 number of tweets.

The sample tweet in table 2 signifies that despite the unfortunate situations that Filipinos are into, they are still able to convey joy in their public voice. Joy is expressed when the statements describe feeling of pleasure and happiness. This can be manifested by talking about positive feeling or experience, describing positive outcomes or achievements and using terms like happy, delighted and/or elated. It was revealed that there are 3,681 tweets or 36.81% of those that belong to the mentioned emotional tone. The types of public voice categorized under this emotional tone includes employment of humor, giving complement, sharing information and saying a prayer. PT193 is categorized to convey the emotional tone of joy as it expresses appreciation to the Filipinos who have exerted so much effort and are considered heroes in times of pandemic.

The next type of emotional tone that is expressed in the public voice of the Filipinos in times of crisis situations is sadness. This emotion expresses a feeling of sorrow or unhappiness caused by loss or misfortune. This is conveyed in a sense of melancholy or despair, use of words like sad, depressed, unhappy, or down, and describe loss, disappointment, or failure. It has 3,522 tweets which is equivalent to 35.22%. This means that as dominantly Filipinos remained to be optimistic in times of crisis, there are also people who are experiencing negative emotions. This is illustrated by ET 1920 as the tweet exudes a profound sense of sadness, as it is evident through the vivid depiction of the devastating aftermath of the strong earthquakes in Mindanao.

The third dominant emotional tone on the public voice of the Filipinos in terms of crisis situations is trust. This emotion garnered 1,434 tweets or 14.34%. This positive tone is conveyed by Filipinos by professing their faith to the Almighty through prayer or by expressing their full confidence to their government's response of the crisis situation. The tweet reflects a deep-seated reliance on the President of the country, expressing unwavering confidence in the

leader's commitment to uplift the economy and improve the lives of the people, even in the face of challenges such as inflation. The use of words like "trust," "support," and the concluding phrase "long live" underscores the poser's firm belief in the government's capability to address the ongoing crisis.

The fourth emotional tone conveyed in the public voice of Filipinos during crisis situations is surprise. Surprise is a feeling of astonishment or wonder caused by something unexpected. This is done by expressing unexpectedness, using words like surprised, amazed, shocked, or astonished, and describing unexpected events or outcomes. It has garnered 759 tweets or 7.59%. Although this emotional tone is not that big in percentage however several public voices convey this one. This emotion is conveyed as the people have the hard time believing to how the government handles the situation or how severe the crisis is.

The fifth emotional tone conveyed in the public voice of the Filipinos in times of crisis situations is fear. This refers to a feeling of anxiety or apprehension caused by a perceived threat or danger. This is done by conveying a sense of apprehension or worry, using words like afraid, scared, anxious, or nervous, and describing potential harm or danger. It has accumulated 356 tweets or only 3.56%. This emotional tone is conveyed when Filipinos express their doubt or uncertainty of their safety. Most of the tweets that qualify in this category express their worry about their life, especially in times of natural disasters.

The sixth emotional tone that was expressed in the public voice of the Filipinos during crisis situations is disgust. This emotional tone accounts to only 144 tweets or 1.44%. Although a few in quantity, but this emotional tone needs to be considered as this conveys the people's frustration on how the government responded to the crisis situations. The emotional tone of disgust is present in PT 169 due to the expressed sentiment towards political figures and their perceived role in managing the COVID-19 crisis. The use of the term "quickest solution" suggests a frustration or dissatisfaction with the current leadership's handling of the pandemic.

The seventh emotional tone that is conveyed in the public voice of the Filipinos in times of crisis situations is anticipation. There are 67 tweets that qualified to this category. This means it is only 0.67%. This kind of emotional tone is expressed when something is expected to happen or when eagerness is conveyed by the statements. It might be positive or negative, depending on how they see the government's response in regard to the crisis being faced. The emotional tone of anticipation is evident in PT 65 as it expressed concern and hope regarding the new variant of COVID-19. The overall tone of the tweet reflects a mix of caution and hopeful anticipation, as the author anticipates and expresses concern about the potential impact of the new variant on an already challenging scenario.



The eighth and last emotional tone present in the public voice of Filipinos during crisis situations is anger. It has garnered only 35 number of tweets among 10,000 being subjected in this study. This means that there is only 0.35% that accounts to this emotional tone. This type of emotion has been conveyed to express their anger to the government. It expresses their dissatisfaction on the way the crisis is being handled. PT 336 exemplifies this as it primarily directed towards the people in the Philippines and their perceived frustration or dissatisfaction with President Duterte. It conveys a tone of anger by linking negative health outcomes not to the virus itself, but to the perceived shortcomings of the political leadership, particularly Duterte.

The result of this study is congruent to the findings of [33]. They conducted a sentiment analysis on the posts of people on social media worldwide about the outbreak of COVID-19. It was revealed that despite the horror of the pandemic, positive sentiments were dominantly conveyed by their tweets. It was explicated that despite the stressed brought by lockdowns, the people appreciated the efforts of their respective government, frontline and health workers and police officers in doing their best to contain the virus.

More so, other studies support the findings of this research, as they explicated that other emotional tones too are prevalent in times of crisis situations. For instance, during the Berlin Christmas market attack in 2016, sadness and anger were the prevailing emotions felt by the people [34]. They had become emotionally sensitive because of that crisis situation. On the other hand, during the Marawi Siege in the Philippines, [35] found that despite the crisis, many social media posts expressed positive emotions such as hope, resilience, and trust. Hence, they concluded that by doing this, Filipinos are able to maintain a positive outlook even in the face of adversity.

Further, [36] examined Twitter usage during Hurricane Harvey. It was found that surprise was a common emotion expressed in tweets about the disaster. Users were surprised by the government's slow and inadequate response to the storm, as well as by the lack of communication from officials. [37] conducted a survey to investigate the relationship between social media use and emotional reactions to earthquakes. It was found that fear and worry are the ones that prevail among the posts of the people. This emotional reaction is the same with what the people in Mexico felt during series of tremors experienced in their place. [38] revealed that during the tremors the people was overwhelmed with fear and anxiety.

Moreover, a negative emotion was uncovered as [39] examined the opinions on Facebook during a period of inflation in 2022-2023. The findings revealed a range of sentiments, including frustration, disgust, and discussions about the impact of inflation on various aspects of life. In another study, [40] examined the emotional tone of Twitter posts over time during the COVID-19 pandemic. The study found that people's emotions were dynamic and fluctuated throughout the pandemic. One of the emotions that are also common to these tweets are the positive emotions, such as anticipation and gratitude, were expressed throughout the pandemic.

Lastly, [41] analyzed the use of Twitter to express anger during the COVID-19 pandemic in the United Kingdom from March to May 2020. The findings showed that Twitter was a platform for expressing anger, particularly in the early stages of the pandemic. This anger was expressed in the form of criticism towards the government, frustration over the lack of information, and fear for the future.

Table 2: Types of Emotional Tone of the Public Voice of Filipinos during Crisis Situations

Emotional Tone	Number of Tweets	Sample Tweet
Joy	3,681	<i>Happy National Heroes Day to all who dream and work for a better Philippines! Long live your heroism, especially in the midst of the pandemic! (PT 193)</i>
Sadness	3,522	<i>My town is one of the most affected towns of the strong earthquakes in Mindanao. No water, no electricity, stores are closed, buildings collapsed, families lost their homes, landslides here and there. Please send help for my beloved, Makilala. (ET 1920)</i>
Trust	1,434	<i>We have trust and support for your endeavors, and we believe that your attendance at the Economic forum will provide new opportunities for the development of our country and the benefit of every Filipino. Thank you, beloved President. Long live! (IT 557)</i>
Surprise	759	<i>Wow... it's been over a year since Typhoon Odette, but we haven't seen a single cent from the promised assistance. They say others have received aid, but many of us still haven't. It seems even disasters are being politicized. It's really 'more fun' in the Philippines. (TT 39)</i>
Fear	356	<i>I am still in the office when I felt the magnitude 6.0 and still scared for an aftershock now. My hands are still trembling now with fear while making this tweet. Please pray with us! Pray for Philippines! (ET 956)</i>



Disgust	144	Duterte and Go are the quickest solution against COVID-19. I'm sure that if they resign along with their appointees in 3 to 6 months, the Philippines will win against the CCP virus (COVID-19). (PT 169)
Anticipation	67	Be cautious about the new variant of COVID-19. Let's hope it doesn't enter the Philippines; we're already in a tough situation. (PT 65)
Anger	35	People in the Philippines won't die from COVID-19 but from a heart attack due to their anger towards Duterte. (PT 336)
Total number of Tweets	10,000	

4.3. Variation of Sentiments across Different Types of Crisis Situations

As presented in Table 3, there is a variation with regard to the sentiments of the Filipinos in crisis situations. For earthquake, inflation, and typhoon, it can be noted that the dominant emotional tone is neutral then followed with positive and negative respectively. Also, the dominant sentiment of pandemic is neutral but it is followed with negative emotional tone, then positive. With that, it can be argued that the pandemic has a different

emotional tone compared to earthquake, inflation and typhoon as negative tone is more prevalent than that of the positive one.

As what the table below contains, earthquake has 1,723 tweets or 68.95% of neutral tone and has 597 tweets or 24% of positive tone. This is congruent to the emotional tone of Filipinos in times of inflation as neutral tone has 2,069 tweets or 82.78% and the positive tone is 222 tweets or 8.87%. This is also similar to that of typhoon as neutral tone has 1,855 tweets or 74.20% and positive tone has 442 tweets or 17.68%.

Table 3: Variation of Sentiments across Different Types of Crisis Situation

Type of Crisis Situation	Type of Sentiment	Number of Tweets	Percentage	Sample Tweet
Earthquake	Neutral	1,723	68.95%	<i>We pray more people will support our brothers and sisters affected by the earthquakes in Mindanao. (ET 1444)</i>
	Positive	597	24%	
	Negative	179	7.16%	
Inflation	Neutral	2,069	82.78%	<i>Hahaha hope you get onions now that prices have gone down. (IT 514)</i>
	Positive	222	8.87%	
	Negative	209	8.35%	
Typhoon	Neutral	1,855	74.20%	<i>Keep safe, Philippines! Keep safe, Cebu! Let's all stay in our homes to avoid the disasters that Typhoon Odette may bring. God bless us all. (TT 164)</i>
	Positive	442	17.68%	
	Negative	203	8.12%	
Pandemic	Neutral	1,999	79.97%	<i>Only in the Philippines is the Covid-19 swab test paid for because it's a business for some people. (PT 10)</i>
	Negative	271	10.84%	
	Positive	230	9.20%	
Total Number of Tweets		10,000	100%	

To further determine if there exists a variation of sentiments on the public voice of Filipinos across crisis situations, the data that were run from Orange Software were further subjected to additional analysis through ANOVA. It was revealed that the

mean score is 261.882 and the f value is 16928.542 with the p-value of .000. Since this is lower than .05 level of significance, this means that there exists a variation in regard to the sentiments of Filipinos across different types of crisis situations.



Table 3.1. Significant Difference of Sentiments across Different Types of Crisis Situations

	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	2880.703	11	261.882	16928.542	.000
Within Groups	463.817	29982	.015		
Total	3344.521	29993			

Furthermore, to confirm the result contained in Table 3.1, the data was subjected to Multiple Comparison using Tukey HSD. In here, the sentiments of the Filipinos in each crisis situation were considered in order to see if there are variations. As can be seen in the data in Table 3.2, the mean difference is shown between each pair of variables, along with a significance code (asterisk) indicating whether the difference is statistically significant at the 0.05 level.

As the table contains, there are a number of statistically significant differences between the variables. For example, the mean score for Earthquake Positive Emotion is significantly higher than the mean score for Earthquake Negative Emotion, Inflation Neutral Emotion, Typhoon Neutral Emotion, and Pandemic Neutral Emotion. Additionally, the mean score for Earthquake Negative Emotion is significantly lower than the mean score for Earthquake Neutral Emotion, Inflation Positive Emotion, Inflation Negative Emotion, Inflation Neutral Emotion, Typhoon Positive Emotion, Typhoon Negative Emotion, Typhoon Neutral Emotion, Pandemic Positive Emotion, Pandemic Negative Emotion, and Pandemic Neutral Emotion.

Positive sentiment appears highest during earthquakes, suggesting a potential sense of community and resilience in the face of natural disasters. Inflation also elicits a relatively positive response, possibly indicating an understanding of its economic implications and potential for adaptation. However, pandemic generates the lowest positive sentiment, likely due to their widespread impact and associated fear and uncertainty.

Negative sentiment peaks during typhoons, reflecting the immediate threat and potential devastation they pose. Earthquakes and pandemics also evoke a significant degree of negativity, while inflation generates the least negative response. This pattern suggests that the perceived level of danger and immediacy plays a crucial role in shaping negative sentiment. Neutral sentiment is most prevalent in the context of inflation, potentially indicating a more balanced perspective on this complex economic issue. Conversely, pandemics trigger the

lowest level of neutral sentiment, highlighting a stark polarization of opinions and lack of consensus around their management. These findings highlight the complex relationship between crisis type and public emotions, offering valuable insights for crisis management and communication strategies.

This result harmonizes with the findings of other studies. For example, the high positive sentiment associated with earthquakes aligns with the concept of communal coping [42]. Earthquakes, despite their potential for destruction, often trigger a sense of shared experience and community. This shared sense of vulnerability can foster feelings of unity and support, leading to a more positive emotional response [43].

The high negative sentiment associated with typhoons is unsurprising, considering their potential for widespread destruction and loss of life. Research [43] found that individuals exposed to typhoons reported significant levels of anxiety, depression, and post-traumatic stress disorder (PTSD). The fear of physical harm, disruption of daily life, and uncertainty surrounding recovery efforts likely contribute to the negative emotions associated with typhoons [44].

The finding that inflation triggers a neutral response is intriguing. Inflation, while impacting individuals financially, may not evoke the same emotional intensity as more immediate and visible threats like natural disasters. Moreover, the abstract nature of inflation, compared to the tangible consequences of a typhoon, may lead to a more muted emotional response [45].

Lastly, the mixed sentiment associated with pandemics reflects the multifaceted nature of these events. While fear and anxiety are prevalent due to the potential for illness and death, positive emotions like gratitude for healthcare workers and community support can also emerge [46]. The specific emotions experienced during a pandemic likely depend on individual vulnerability, perceived risk, and access to resources [47].

**Table 3.2: Variations of Sentiments in Every Crisis Situation**

Multiple Comparisons						
(I) V1	(J) V1	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Earthquake Positive	Earthquake Negative	.167236*	.003519	.000	.15574	.17874
	Earthquake Neutral	-.450655*	.003519	.000	-.46215	-.43915
	Inflation Positive	.150193*	.003519	.000	.13869	.16169
Inflation Negative	Inflation Positive	.155354*	.003519	.000	.14385	.16685
	Inflation Neutral	-.588962*	.003519	.000	-.60046	-.57746
	Typhoon Positive	.062016*	.003518	.000	.05052	.07352
Typhoon Negative	Typhoon Positive	.157686*	.003518	.000	.14619	.16919
	Typhoon Neutral	-.503143*	.003518	.000	-.51464	-.49164
	Pandemic Positive	.146893*	.003518	.000	.13539	.15839
Pandemic Negative	Pandemic Positive	.130505*	.003518	.000	.11901	.14200
	Pandemic Neutral	-.560816*	.003518	.000	-.57231	-.54932

4. CONCLUSION

The dominant public voice of Filipinos during crisis situations is neutral. This means that even in times of difficult times, Filipinos tend to avoid being emotional and blame the authority of express negative emotions. Instead, they share valuable information and narratives which may be helpful to their fellows in addressing the mentioned crisis.

When the public voice is further analyzed, it was revealed that among the eight emotional tone, joy was the most commonly expressed emotional tone among Filipinos. This means that even in times of crises Filipinos are able to look for the brighter side of it and are even more appreciative of what has the government done or what has the situation make them realize about life.

Lastly, when the emotions of each crisis situations were compared, it was revealed that they vary according to the kind of crisis they face. Filipinos tend to express optimism and faith in the occurrence of natural disasters; thus, conveying praying and well wishes while during pandemic the people tend to express more negative emotions as they tend to criticize how the government address the situation and how the system fail.

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COMPETING INTERESTS

The researcher has no competing interest with other people or organization.

AUTHORS' CONTRIBUTIONS

The author conducted this study by himself with the guidance of his adviser.

CONSENT (WHERE EVER APPLICABLE)

This study does not need to have a consent as this analyzed Tweets which are readily available on social media; hence, is part of the public domain.

ETHICAL APPROVAL (WHERE EVER APPLICABLE)

In conducting this study, the researcher secured the Ethical clearance from the university's Research Ethic's Committee.

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UNDERSTANDING BRAND ADDICTION: UNRAVELING CONSUMER BEHAVIOUR, BRAIN PROCESSES AND SOCIETAL IMPACT

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ABSTRACT

This study aims to delve into the complex world of brand addiction by conducting a comprehensive survey of existing literature. We will explore the intricacies of consumer behavior, uncover the neurological basis of brand loyalty, and investigate the larger societal implications of intense brand attachment. By combining insights from psychology, marketing, neuroscience, and sociology, this study seeks to provide a deep understanding of how individuals form strong connections with specific brands. Additionally, we will examine the role of marketing strategies in cultivating brand addiction and explore the potential impact on personal well-being and societal dynamics. Through this comprehensive examination, we hope to shed light on this fascinating phenomenon and its far-reaching consequences. Brand addiction, a captivating aspect of consumer behavior that goes beyond mere brand loyalty, is explored in this literature review. With businesses increasingly prioritizing the development of strong brand identities, it becomes crucial to comprehend the psychological and emotional dimensions of brand addiction. By integrating findings from various academic domains including marketing, psychology, sociology, and neuroscience, this review offers a comprehensive overview of the present understanding of brand addiction.

The survey also looks into the causes and effects of brand addiction, examining aspects such as brand attachment, brand personality, and the influence of advertising on consumer perceptions. It investigates how social and cultural elements shape brand addiction, as well as the impact of technological advancements like social media and personalized marketing on intensifying brand relationships.

Furthermore, the review addresses the potential negative consequences of brand addiction, exploring situations where excessive brand attachment can lead to compulsive buying, financial strain, or social isolation. It also discusses the ethical considerations associated with brand addiction, highlighting the responsibility of businesses in managing and mitigating potential harm resulting from fostering strong connections with their brands.

By synthesizing existing literature, this review provides valuable insights for scholars, marketers, and policymakers seeking a deeper understanding of the complexities surrounding brand addiction. Additionally, it concludes with suggestions for future research directions and practical implications for businesses aiming to cultivate meaningful and sustainable brand-consumer relationships in an ever-changing market landscape.

KEYWORDS: Brand addiction, Consumer behaviour, Brand loyalty, Cultural elements, and Policy makers.

INTRODUCTION

Consumers have a unique way of connecting with brands, brand addiction is a key factor in this relationship [1]. We found a gap in the literature when it comes to addiction. Most of the research has focused on understanding what it means and how to measure it when looking at different types of products and fashion brands in general. But there's still a lack of specific research in this area[2]. In today's competitive market, where numerous brands and products are vying for attention, relying solely on price reductions and loyalty programs may not be enough to stand out. It might be more fruitful to focus on cultivating deep connections with customers, as these strong consumer-brand relationships are thought to be the key to creating brands that last.

According to Hwang and Kandampully (2012), the current landscape is flooded with brands and products that are quite similar to one another. This makes it challenging for businesses to differentiate themselves based on price reductions or loyalty plans alone. To truly make a lasting impact, it is essential to help customers develop intense connections with the brand. Studies have shown that these strong consumer-brand relationships play a crucial role in fostering sustainable brands (Park et al., 2006). By establishing a deep bond with customers, brands can create a sense of loyalty that extends beyond the conventional parameters of pricing and rewards [3]. Brand loyalty is a concept that goes hand in hand with brand addiction, according to researchers (Cui et al., 2018). In the field of brand management, most studies examine brand loyalty as a mix of behavioral loyalty and attitudinal loyalty (Pourazad et al.,



2019)[4]. People often turn to compulsive buying in order to deal with the various stressors they face on a daily basis and to bring about a sense of positive emotions. Compulsive buying refers to the habit of repeatedly and excessively purchasing consumer goods that are not actually necessary[5]. Brand awareness refers to how well consumers can identify or recognize a brand. It encompasses brand recognition, brand recall, and brand identification. Experts have defined it as the ability for consumers to easily recall and associate a brand with its products or services. So, in simpler terms, when we talk brand awareness, we are basically considering how familiar people are with a particular brand. It's like asking yourself, "Do I know this brand? Have I heard of it before?" This familiarity can be measured by assessing consumers' ability to remember the brand or recognize its logo or name. It's an important aspect for businesses because the more awareness a brand has, the more likely it is to attract customers and gain their trust[6]. This study explores the impact of self-congruence on compulsive buying behavior and introduces brand attachment as a mediator between self-congruence and compulsive buying behavior. While brand attachment has been known to bring positive outcomes for companies, it can also have negative effects[7]. In these times of economic uncertainty and excessive consumption, certain aspects like corporate social responsibility, public well-being, and most importantly, individual happiness gain significance. Happiness, or subjective well-being, is linked to how someone chooses to behave within society[8]. It's becoming increasingly crucial to identify the elements that impact brand loyalty in today's highly competitive business landscape, as highlighted by Chiu et al. in their study conducted in 2012[9]. Consumers often exhibit consistent behavior when repeatedly purchasing the same

brand. There are several reasons that can explain this behavior. It could be due to factors like loyalty to a particular store, lower prices, or a limited range of options. On the other hand, this behavior may also indicate an emotional attachment to the brand or a belief in its superiority over competing brands in terms of functionality, symbolism, or psychological attributes. In reality, the decision to consistently buy a specific brand depends on the perceived benefits that consumers associate with maintaining their relationship with the brand, such as reduced search efforts or increased satisfaction[10]. If brand loyalty was completely random, there wouldn't be any point in studying it scientifically. Random events, while intriguing, are difficult to predict or manage[11]. Revenue and profit derived from a deep emotional connection with customers are less likely to be impacted by external factors. When this bond is particularly strong, it cultivates a sense of unwavering loyalty, prompting customers to stay committed to a product or service even when faced with tempting offers or circumstances that may typically lead to switching to an alternative option (Oliver, 1999)[12]. The true measure of a brand's triumph lies in the ability of its community to empower consumers' self-expression through the brand. To facilitate this, countless companies have created virtual brand communities, which can be easily accessed via the company's website or online platform[13]. Brand love and brand attachment have been extensively studied in the field of marketing. However, recent research by Suarez (2019) and Palusuk et al. (2019) points out that the line between these two concepts remains unclear and challenging to distinguish even today. It seems like there's some confusion around understanding the differences between brand love and brand attachment[14].

RELATED RESEARCH WORK

S.No.	Area of study	Focus	Reference
1.	Consumer behaviour	Brand love by linking brand personality	Cristela Mala Bairrada,September,2018
2.	Brand retention	Through sales and service efforts.	Peter C.Verhoef,2007
3.	Loyalty programmes	value perception of the loyalty program affects customer loyalty.	Y Yi Jeon,2003
4.	Emotional Branding	Marketers long lasting attachment for the customers	Ali EKber AKgun,November ,2013
5.	Neuroimaging Studies	concept for building a relationship between brands and consumers	S Watanuki,,2020

OBJECTIVES

1. To explore unique consumer-brand relationships
2. To extend understanding of addiction beyond product categories and fashion brands.
3. To Identify and analyzes factors contributing to brand addiction.
4. To provide insights for businesses in competitive market

METHODOLOGY

Conducting a literature survey on brand addiction involves systematically reviewing and analyzing existing research and scholarly works related to the topic. The current study is based

on a thorough assessment of recently published relevant papers found using a variety of search engines, such as Research Gate, Google Scholar, and others.

This study clearly defines the objectives of your literature survey. Specify the scope of study, including the time frame, geographical focus, and any specific criteria for including or excluding sources. Synthesize the information gathered from the literature to develop a coherent narrative. Identify patterns, connections, and overarching themes that emerge from the reviewed studies.



***To explore Unique Consumer-Brand Relationships.**

Marketers will benefit from this systematic literature review because they invariably deal with various types of relationships that consumers have with their brands. They need not only to foster one or more desired brand relationship types, but also prevent undesired ones. Managing a portfolio of brand relationships demands integrated knowledge across types [15].

Consumer-brand relationships are all about the connections and interactions between consumers and the brands they choose to engage with. It's more than just a simple transactional agreement, it's a complex and multifaceted that involves emotions, thoughts, and actions. To truly delve into these unique relationships, we need to understand the dynamics and factors that contribute to the special connections individuals form with specific brands. So, let's dig a little deeper and explore some key aspects that are worth considering

Emotional Connection

Have you ever felt a strong attachment to a particular brand? It's not just about the product itself, but also about the personality and values that brand represents. When a brand aligns with our core beliefs and resonates with us, we develop an emotional bond. This connection creates a sense of identification and loyalty, making us more likely to choose that brand time and time again.

Brand Trust

In the consumer-brand domain, there's a lack of research on the relationship between consumers and brands. That's why the authors of this article put their focus on exploring Brand Trust. It's quite surprising that there isn't a widely accepted way to measure this concept, considering that trust is seen as the foundation and one of the most desirable qualities in any relationship. Moreover, it's the most crucial aspect for any brand to possess.

To address this gap, the authors conducted a multi-step study to create and validate a multidimensional brand trust scale. They drew inspiration from trust conceptualizations in various academic fields. Through psychometric tests conducted at different stages, they were able to demonstrate the reliability and validity of this new brand trust scale[16].

Trust is the foundation of any successful relationship, and the same goes for our relationship with brands. We put our trust in brands that consistently deliver on their promises and meet our expectations. When a brand goes above and beyond to fulfill our needs, it builds trust and strengthens our connection. We feel confident and positive about our choice, knowing that we can rely on that brand.

Brand Loyalty

This study dives into the relationship between brand trust, brand, and brand performance outcomes such as share and relative price. The main focus is to understand how brand loyalty comes into play in this linkage. Additionally, we explore the impacts of two product-level control variables,

hedonic and utilitarian value, on brand trust and brand affect. Moreover, we examine how brand differentiation and share of voice, two brand-level control variables, affect market share and relative price. Through this research, we aim to gain deeper insights into the dynamics of these factors and their influence on brand success[17].

Choosing a brand repeatedly is a clear sign of loyalty. When we consistently select a particular brand over its alternatives, it showcases our dedication. This loyalty doesn't arise out of thin air. It stems from positive experiences, the value we perceive in the brand, or even the emotional connection we have with it. In fact, some of us become true advocates for our favorite brands, eagerly recommending them to others with enthusiasm.

Personalization and Customization

We all appreciate when a brand takes the time to make us feel special. That's where personalization and customization come into play. Brands that tailor their experiences to our individual preferences make us feel valued. Whether it's personalized products, targeted marketing, or exclusive offers, these thoughtful gestures enhance our connection with the brand. We feel like our needs are understood, and that makes a significant difference.

User Experience

Have you ever encountered a brand that just makes everything easy for you? Brands that prioritize a seamless and enjoyable user experience leave a lasting impact. Whether it's a user-friendly interface, responsive customer service, or hassle-free transactions, these elements contribute to a positive association. We appreciate when a brand makes our lives easier and more pleasant, and that strengthens our bond with them.

Innovation

Change is inevitable, and brands that embrace it thrive in our ever-evolving world. The ones that continuously innovate and adapt to meet our changing needs maintain a fresh and dynamic relationship with their customers. We appreciate when a brand stays ahead of the game, anticipating what we might want or need next. This sense of innovation creates excitement and reinforces our connection with the brand.

Community and Social Aspect

Belonging to a community is a fundamental human need, and brands can fulfill that desire. Some brands foster a sense of community among their customers, providing a space for like-minded individuals to connect. When we feel part of something bigger, it enhances our overall experience with the brand. Additionally, brands that show their commitment to social and environmental causes often strike a chord with consumers who share similar values. This genuine dedication to making a positive impact strengthens our connection and gives us a sense of purpose.

Establishing an emotional connection with consumers goes beyond the basic transactional relationship. Brands that possess distinct personalities and values, prioritize trust, offer personalized experiences, prioritize user experience, showcase



innovation, build communities, and demonstrate social responsibility create a powerful and enduring bond with their customers. So, the next time you find yourself drawn to a particular brand, take a moment to reflect on the emotional connection you have with it.

*** To extend understanding of addiction beyond product categories and fashion brands:**

In order to truly grasp the concept of addiction, it is essential to look beyond the usual associations with substances or even fashion brands. Rather than confining addiction to specific categories, we should consider it in a more encompassing manner, including various behaviors, experiences, and even virtual interactions that lead to repetitive and compulsive engagement. This broader perspective acknowledges that addictive tendencies can appear in different aspects of life, going beyond traditional understanding of substance abuse or attachment to consumer brands.

When viewed in this context, addiction can manifest in activities like social media usage, gaming, gambling, work, or even relationships. These behaviors can trigger the same neurological and psychological responses as traditional

addictions, involving a compulsive need, loss of control, and negative consequences.

By reimagining addiction in this expansive way, we understand that the driving forces behind addictive behaviors aren't limited to specific product categories. This viewpoint encourages a more comprehensive exploration of the psychological, social, and environmental factors contributing to addictive tendencies across a range of human experiences. It recognizes that addictive behaviors can emerge in various domains and promotes a nuanced understanding of the underlying mechanisms, triggers, and consequences associated with these diverse forms of addiction.

***To Identify and analyzes factors contributing to brand addiction**

Better knowledge and predictions of purchase topics, as well as purchase motivations and frequency, are made possible by study on consumer behavior (Schiffman, Kanuk 2004). People frequently purchase things based on their subjective perceived worth rather than their primary function, according to one of the key assumptions that now underpin consumer behaviour research[18].

Table No.1 Comprehensive Brand Evaluation Factors

Factor	Description
Product Quality	Examining the overall quality, durability, and performance of the brand's products.
Brand Image	Assessing the perception and reputation of the brand, including its values, ethos, and identity.
Customer Experience	Analyzing the level of satisfaction and engagement customers experience throughout their journey.
Marketing Strategies	Evaluating the effectiveness of the brand's marketing efforts in creating awareness and desirability.
Innovation	Investigating the brand's commitment to innovation, staying relevant, and offering new experiences.
Social media presence	Analyzing the brand's presence on social media platforms and its influence on customer engagement.

***To provide insights for businesses in competitive market.**

Businesses frequently use an organization centric perspective in business-customer relationships, posing queries such "what can we sell customers and how can we make money from them?" that are akin to those stated by Osterwalder (2010: 129). But according to Salzman (2003), this methodology hardly ever assumes market success.[19].

Business Strategy Overview

- Understanding Target Audience: Conduct market research to understand customer preferences and expectations.
- Differentiation Strategy: Identify unique features, quality, pricing, or customer service to set your business apart.
- Competitive Analysis: Monitor competitors' activities and identify market gaps.
- Continuous Innovation: Invest in research and development and introduce new products to stay competitive.
- Customer Experience: Provide exceptional customer experience to build loyalty and positive word-of-mouth.

- Efficient Operations: Streamline internal processes and optimize supply chain for timely delivery and cost reduction.
- Businesses have several opportunities and problems in a competitive market. The following important realizations can help companies prosper in such a setting:

Customer-Centric Approach and Market Research

- Understanding customer needs and preferences.
- Providing excellent customer service to build loyalty.
- Utilizing customer feedback for product and service improvement.

Differentiation

- Identifying unique selling points and distinguishing brand from competitors.
- Focusing on innovation for market competitiveness.

Market Research

- Monitoring market trends and competitors.



- Conducting regular market research to identify new opportunities.

Agile Adaptation

- Quickly responding to customer feedback and industry developments.
- Embracing new technologies for efficiency.

Quality Products/Services

- Maintaining high standards and consistently delivering value.
- Cost Management
- Optimizing operational costs without compromising quality.
- Adapting pricing strategies based on market conditions.

RESEARCH GAP

Despite the growing recognition of the concept of brand addiction and its implications on consumer behaviour, brain processes, and societal impact, there exists a notable gap in the current literature that requires further exploration. Specifically, the following areas merit deeper investigation

While studies have explored the neurological aspects of brand addiction, there is a need for more comprehensive research to unravel the specific neural mechanisms involved. Understanding how different types of brands elicit responses in the brain, and the neural pathways associated with brand addiction, can provide valuable insights into consumer decision-making processes.

Cross-Cultural Variations in Brand Addiction

- Research mainly focuses on specific cultural contexts.
- Exploring cross-cultural variations can reveal societal norms, values, and cultural factors.
- Provides a globally applicable understanding

RESEARCH AGENDA

1. How do brand addiction and intense brand loyalty impact consumer behaviour over an extended period, and what are the ethical implications of brand marketing strategies on vulnerable consumer segments?
2. What cross-cultural variations exist in the development and manifestation of brand addiction, and how do cultural factors influence the societal impact of brand attachment?
3. How do emerging technologies, such as augmented reality and virtual reality, impact the development of brand addiction, and what role do social media play in shaping brand attachment in the digital age?

These research questions aim to address key gaps in the existing literature on brand addiction, focusing on the long-term societal impact, ethical considerations, and cross-cultural variations associated with the phenomenon.

CURRENT ISSUE

The increased usage of social media platforms and their potential to cause brand addiction was one of the most common concerns. Despite its tendency to promote excessive brand attachment, social media is a tremendous instrument for brand visibility and engagement. Algorithms, tailored content, and

social validation are frequently used by brands to increase user engagement and create a sense of belonging.

Ethical Concerns in Marketing

- Debate on psychological tactics in marketing fostering brand addiction.
- Critics argue these strategies exploit consumer vulnerabilities.
- Privacy and Data Concerns
- Collection and use of personal data for targeted advertising raises privacy concerns.
- Consumers may feel uneasy about brands influencing their preferences and behaviours.

SUGGESTIONS

Research Objectives and Methodology

- Clearly articulate study objectives: identify brand addiction patterns, analyze marketing strategies, propose responsible branding practices.
- Provide research methodology details: surveys, interviews, and existing datasets.
- Consider strengths and limitations of each method.
- A well-designed methodology enhances findings credibility.
- Cross-Cultural Analysis and Longitudinal Approach to Brand Addiction
- Incorporate cross-cultural analysis to understand brand addiction's universality or cultural specificity.
- Adopt a longitudinal approach to observe changes over time.
- Provide comprehensive understanding of brand addiction's evolution and adaptation to societal shifts.
- Interdisciplinary Collaboration in Brand Addiction Study
- Encourage collaboration from psychology, marketing, neuroscience, and sociology.
- Offer diverse perspectives for holistic understanding.
- Practical Implications
- Discuss how findings can improve marketing strategies.
- Explore societal implications and policymakers' role in addressing brand addiction challenges.

LIMITATIONS

Representativeness of the Sample: There may be issues with the study's sample's representativeness. It could be difficult to extrapolate the results to a larger context if the participants lack diversity or if they do not fairly represent the larger community.

Self-Report Bias: There could be bias introduced if self-report data is used. People may either over report or underreport their addictive behaviours as a result of inaccurate memories or social desirability. This can have an impact on the data collection's dependability and accuracy.

Social Desirability Bias in Qualitative Data: Participants' responses may be swayed by social desirability if the study uses open-ended questions or interviews to gather qualitative data. This could cause bias in how their experiences and actions are interpreted.

Absence of Longitudinal Data: The long-term trajectories of addictive behaviours may not be captured by a cross-sectional



study design. For a deeper understanding of the evolution and changes in compulsions throughout time, longitudinal data would be preferable.

Sensitive material may be involved in the course of investigating addiction and compulsion, rising ethical and privacy concerns. The extent of investigation into some aspects of these behaviours may be constrained by the need to ensure the ethical treatment of participants and handle privacy concerns[20].

CONCLUSIONS

This study explores brand addiction through an interdisciplinary approach combining psychology, marketing, neuroscience, and sociology. It highlights the profound impact of brands on individuals, highlighting the intricate interplay between brain reward systems and emotional resonance. Understanding the psychological mechanisms behind brand addiction can help explain intense attachments to specific brands.

The study explores the role of marketing strategies in cultivating brand addiction, emphasizing the importance of emotional branding and personal experiences. It highlights the societal implications of brand attachment, influencing social identity, cultural trends, and economic patterns. The findings contribute to a more nuanced understanding of consumer behavior, fostering responsible marketing practices, and promoting a balanced approach to brand engagement.

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OPPORTUNITIES AND CHALLENGES FOR INDIAN RETAIL STORES AND THEIR MARKETING STRATEGIES

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ABSTRACT

Purpose: Recognize consumer needs, seek out new business opportunities, create the best marketing plan, cut costs, and keep an eye on the competition. Because of retailers, consumers have access to a vast array of goods and services from around the globe, and the retail sector boosts employment and the country's economy. As the study's title suggests, the goal is to look into the Opportunities and Challenges for Indian retail stores and their Marketing strategy.

Design/Methodology/Approach: The secondary data for this paper was gathered from a range of sources about the opportunities and challenges of retail stores and their marketing strategies, including research papers, journal articles, and literature reviews. These sources were found by searching for relevant keywords in the Google Scholar search engine, finding relevant websites, and gathering additional information from reports on the opportunities and challenges of retail stores in India.

Findings: Price wars among competitors can erode profit margins and negatively impact the industry. Retail stores need to find ways to differentiate themselves beyond just price, such as by offering superior customer service or unique product selections. Retailers can analyse sales data to identify trends, such as which products are selling well and at what times of the year. Understanding the age, gender, and preferences of customers can help tailor marketing and product offerings. Finding out if there is excess stock, understocking, or slow-moving items is crucial for efficient inventory management. Collecting and analysing customer feedback can reveal areas for improvement in customer service or product quality.

Originality/Value: A research-based case study on analysis of the opportunities and challenges for Indian retail store and their marketing strategy.

Paper Type: Research Case Study

KEYWORDS: Opportunities and challenges, Retail store, Profit Margins, Marketing Strategy, Preferences, SWOT Analysis.

1. INTRODUCTION

India's GDP is expanding at the second-quickest rate in the world. The nation's economy is the third biggest in the world. Fourth-largest economy in terms of purchasing power parity and GDP. India offers the globe a great chance to use it as a centre at this time. With the retail revolution just around the corner and a rapidly evolving retail scene, India is going to discover the phenomenon of the worldwide village. India is the "guaranteed country" for Indian retailers and multinational corporations. "Enthusiastic economy": India is the top emerging market for worldwide retailers, and the national retail sector is developing quickly to keep up with the economic growth of the nation (Handa, V., & Grover, N. (2012). [1]). Retail companies now are dealing with a number of challenges, including international competitiveness, multidimensional integrating, quickening technical development, customer demand for personalized items, and adherence to regulations (Gupta, A. & Pachar, N. (2023). [2]).

The selling of products and amenities to consumers directly by consumers or businesses is known as retail. The supply network is an interconnected structure that includes retailers. To put it simply, a retailer buys items or products in bulk from producers, either directly or via a distributor, and then profits by selling those goods to consumers in smaller quantities. Since the retail sector is still in its earliest stages in India, marketers are trying to influence consumers by providing them with a wide range of products in a variety of designs, at a number of places, and in a variety of methods. This has led to the emergence of new retail formats (Atulkar, S., & Kesari, B. (2014). [3]). Price inflation is mounting for Western businesses in industrialized nations, which is carving into their revenue margins and alienating their customers. As a result, many merchants are searching for fresh approaches to draw customers in, encourage them to make more purchases, and maintain their brand loyalty. Due to the simultaneous growth of the channel for e-commerce and the evolution of demand, this goal is especially challenging to achieve (Grosso, M., Castaldo, S., & Grewal, A. (2018). [4]).



Large supermarkets, hypermarkets, and shopping centres are expanding quickly because they use competitive pricing techniques to draw customers. The current small retailers and the purchasing habits of their customers are impacted by these price and sales promotion techniques (Kumar, R. (2014). [5]). Over the past ten years, organized retailing has seen growing recognition in the Indian retail market. Modern, organized retailing is replacing the many unorganized family-owned firms that once made up the domestic retail industry (Mude, G., Undale, S., & Daigavhane, V. (2012). [6]). In the Indian economy, branding has become a crucial instrument for marketing, and brands are essential for competing. The consumer now has a wide range of opportunities, from the merchant to the most expensive shopping centres, supermarkets, plazas, and malls that offer the newest and highest-quality goods (Kiran, R., & Jhamb, D. (2011). [7]). India’s retail sector is progressively evolving toward becoming the nation’s next big phenomenon. There has been a revolution in shopping in the country as a result of the structure and purchasing attitudes of consumers, which have changed the very idea of shopping. Large establishments that include dining, entertainment, and shopping under one roof, as well as massive shopping centres and multi-story malls, are examples of how modern retail has reached India (Sonia, M. (2023). [8]).

Both newcomers and established merchants in India’s developing organized retail market face numerous obstacles. In order to win over customers’ confidence and loyalty, businesses must set themselves apart from their competitors. Most

businesses across a range of industries view branding as a critical tool for creating and preserving a competitive edge (Deepa, S., & Chitramani, P. (2013). [9]). Marketing executives who have been given the opportunity to embark on product development comprehend the significance of having a balanced representation of each component of the promotional mix in placement tactics and the sale of goods to end users. The best way to describe the four Ps—product, price, promotion, and placement is as a collection of components that represent an effective good or service. A challenge is incomplete if a component does not exist, meaning that the good will never achieve its entire potential (Marušić, T. (2019). [10]).

2. RELATED WORKS

Retail marketing is the term used to describe any strategy that increases product sales, raises consumer awareness, and increases business profitability. It goes well beyond newspaper advertisements. The retail marketing plan covers the store’s design, social media presence, and personnel. Opportunities and challenges of retail stores and their marketing strategy A comprehensive assessment of the existing literature is undertaken using the Google Scholars search engine between 1986 and 2023, using key words such as “The product enthusiast”, “Influence of technological advances”, “Omni channel retailing”, “New dimension in marketing”, “new Retail Models in India”, “Organized retailing in India”, “Policies of retail sector of India”, “Retailing innovations”,

Table: Opportunities and challenges of retail stores in India and their marketing strategies

S. No.	Focus/Area	Contribution	References
1	The product enthusiast	Product supporters, who are becoming more common in the United States, have important market drivers due to their substantial amount of knowledge seeking, perspective management, and creative thinking. Many frequently utilized advertising approaches need to be adjusted or changed in order for retailers to successfully reach these customers. In the present paper, aspects of the marketing mix are used as a framework for discussing strategic questions pertinent to this customer group.	Bloch, P. H. (1986). [11]
2	Influence of technological advances	The phrase "customer is the king" is now taking on a whole new meaning due to the convergence of innovations in technology and the highly saturated retail sector. Consumers have been shown to be impacted by the integration of technological innovations and analytical ideas such as the marketplace framework, based on value segmentation of consumers, initiative strategy, portable social networking websites, video, and competent visual systems based on marketing principles. Satisfy customers and lower a measure for consumer retention.	Kaur, J., Arora, V., & Bali, S. (2020). [12]
3	Omni channel retailing	Many shops currently believe that the OC-Omni Channel user interface will allow the instrument to contend more actively and successfully in the competitive marketplace. The goal of this article of review is to locate, identify, and organize evidence that clearly defines the significance and objective of Omni channel marketing. By collaborating in integration using sophisticated transportation and supply chain supervision perspectives, it offers customers an effortless purchasing procedure through evolving societal tactics, a vibrant portable expertise, and an energetic transformation of their online presence. It also indicates the intellectual basis and research behind the practice of Omni channel retailing.	Hole, Y., Pawar, M. S., & Khedkar, E. B. (2019). [13]
4	New dimension in marketing	The greatest administration expert, Peter Ducker, once said, “There are only two main functions that businesses have: marketing and inventiveness.” While remote regions present many opportunities for marketers, they also present a number of	Desai, S. S. (2013). [14]



		obstacles to reaching them using the identical combination of promotional materials that are employed in urban areas. Direct physical transportation, channel-related administration, interaction and advertising, insufficient infrastructure, unfeasible market share, and a varied economic class buyer profile are the primary obstacles facing rural marketers.	
5	New Retail Models in India	The Indian retail market has undergone a transformation in the past couple of decades. India is quickly becoming one of the nation's most promising marketplaces for universal merchants, thanks to its expanding economic benefits, expanding revenue interactions, developing knowledge, and a consumer base that is primarily composed of young people. In light of these passionate action circumstances, the purpose of the article is to strategically analyse the Indian retail industry.	Mishra, S. (2008). [15]
6	How augmented reality impacts retail marketing	Marketers have a lot of choices and obstacles when it comes to enhancing the experience of shopping in stores with virtual and augmented reality. Despite the technology's long history, there aren't many real-world marketing applications that use it, and the information that is currently available is disorganized. In order to create research proposals and synthesize the most recent advancements in the field, we undertake an in-depth examination of the available research. After analysing 91 publications, we have determined that four key factors—improving the customer experience, strengthening the bond between customers and brands, improving marketing initiatives, and fostering marketing competitiveness—are what make augmented reality (AR) in retail marketing possible. Technical constraints, consumer-focused issues, technological immaturity, and organizational issues are some of the AR adoption in marketing.	Rejeb, A., Rejeb, K., & Treiblmaier, H. (2023). [16]
7	Consumer Attitude Towards Online Retail Shopping	The aim of this study is to examine the different facets of internet shopping in a contemporary setting and to determine the elements that influence the evolution of attitudes regarding online shopping. In order to guarantee the success of a site for shopping online, the study also attempts to identify customer requirements with regard to online shopping. This study, which is exploratory, diagnostic, and descriptive in nature, aims to determine attitudinal differences across demographic groups as well as crucial variables in online retail shopping and consumer feelings and attitudes toward it. It finds a logical conclusion by identifying the important design areas. It is beneficial to comprehend what customers anticipate from an online retailer in order to be happy and satisfied.	Sangeeta Sahney, Archana Sahney, S., Shrivastava, A., & Bhimalingam, R. (2008). [17]
8	Competitive strategies for unorganised retail business	For the majority of Indians, the disorganized marketplace for goods remains the most important form of retailing, even with the growth of a sizable organized retail sector. Conventional, unorganized retailing gave rise to the modern Indian retail industry. Small retail establishments that operate on a smaller scale, with little or no standardization, and sell goods in divided quantities to local customers within a limited geographic area make up the unorganized retail sector. Retail establishments that lack organization don't use technology or keep up with business procedures. Nonetheless, they have a great deal of space to grow and develop in India.	Sangvikar, B., Kolte, A. and Pawar, A. (2019). [18]
9	Organized retailing in India	One of the top ten retail markets in the world is the Indian retail industry. India's retail industry has changed due to the country's consumers' changing attitudes and the rise of organized retail formats. Given the indications of India's economic recovery, consumer spending in the retail sector is anticipated to be a major growth area. Indian large businesses are therefore refocusing their tactical historical perspective in retail marketing with the goal of making the best use of available resources to develop a core competency and obtain a competitive edge.	Akhter, S., & Equbal, I. (2012). [19]



10	Customer expectations of store attributes	The remarkable expansion of retail in India is evidenced by the swift rise in the quantity of supermarkets, department stores, and hypermarkets across the nation. But the current economic downturn has cast a shadow over this unexpected growth trend, raising concerns about a decline in consumer spending and a slowdown in the expansion of Indian organized retailers. Retailers who can satisfy customers' needs and encourage customer loyalty will succeed in an era of shrinking consumer spending.	Ghosh, P., Tripathi, V., & Kumar, A. (2010). [20]
11	Determining Consumers' Perceptions	The purchasing habits of Indian consumers have changed in the last few years. Indian consumers now have more opportunities to shop and a constantly expanding selection of products to choose from since the establishment of modern retail establishments. Contemporary retail formats come in a variety of shapes and sizes. Regarding ownership, the type of premises (format) utilized, and the focus of the product line, they diverge significantly. This study investigates empirically how situational, demographic, and store factors influence consumers' perceptions of stores when they make purchasing decisions.	Dalwadi, R., Rathod, H. S., & Patel, A. (2010). [21]
12	Store choice behaviour in an evolving market	The aim of this research is to determine the factors that influence store preference across different product categories at a broad level, considering the dynamic retail sector in India. The study makes an effort to establish a relationship between respondents' perceptions of different store attributes and the true reasons why different customers visit different establishments. In the process, it sheds light on whether the typical Indian customer finds value in the newly opened shop dimension that retailers are offering as a component of the fresh designs that are making their way into the market. Since the efficiency of more recent shop layouts has an important influence on the general financial performance of the retail business, an arrangement to measure their efficacy has developed.	Sinha, P. K., & Banerjee, A. (2004). [22]
13	Challenges of creating sustainable agri-retail supply chains	Businesses and governments are under more responsibility to consider the effects that the expanding manufacturing, transportation, and consumption of agricultural products are having on the surroundings and natural resources. Getting manufacturers, especially small-scale farmers, involved in acquiring connections and government programs that support them in meeting the strict food hygiene and safety guidelines is one of the main concerns of the plan for sustainable development. Corporates could be very important in developing sustainable agri-food chains, particularly in the retail sector.	Naik, G., & Suresh, D. N. (2018). [23]
14	Policies of retail sector of India	One of the industries in India that is expanding most quickly is retail. The retail industry was primarily disorganized and dispersed prior to 1991. Unstructured retail locations' revenues are declining as an outcome of the established retail sector's explosive growth. In addition, conventionally disorganized retailers were falling behind in terms of marketing tactics. The goal of the present investigation is to investigate how various governments—including that of India—address both planned and disorganized retail sectors. This study investigates whether the authorities help independent and disorganized retailers survive this major battle by providing them with resources in addition to a strict regulatory structure.	Mukherjee, S. (2011). [24]
15	Retailing innovations	Worldwide retailing and globalization by retailers have been accelerating in the past decade due to the interaction of growing populations and economic expansion compared to more established economies. Businesses that operate in established, developing, and advanced markets—retailers who plan to create an identity in these markets—may face more difficult obstacles than companies in other sectors like gadgets, metal, and automobiles.	Reinartz, W., Dellaert, B., Krafft, M., Kumar, V., & Varadarajan, R. (2011). [25]



3. OBJECTIVES OF THE STUDY

1. Explore and analyze the diverse opportunities that exist for Indian retail stores, aiming to provide a comprehensive understanding of the potential avenues for growth and development in the market.
2. Investigate and evaluate the various marketing strategies employed by retail stores in India, with a focus on gaining insights into the approaches used to attract customers, build brand presence, and enhance market positioning.
3. Examine the challenges encountered by Indian retail stores, aiming to identify and understand the obstacles and hurdles that may impact their operational efficiency and overall success in the dynamic business environment.
4. To analyze the marketing strategies deployed in various contexts, seeking to understand their direct impact on customer satisfaction and elucidate the key factors that contribute to a positive customer experience.
5. To SWOT analyze the strengths, drawbacks, and promotional strategies of Indian retail establishments.

4. RESEARCH METHODOLOGY

This paper's secondary data came from a variety of sources, such as research papers, journal articles, and literature reviews, concerning both the positive and negative aspects of retail establishments and their marketing tactics. These materials were located through the use of the Google Scholar search engine to look up pertinent keywords, the discovery of pertinent websites, and the acquisition of extra data from publications about the positive and negative aspects of Indian retail establishments.

5. OPPORTUNITIES FOR RETAIL STORES IN INDIA

Retail establishments in India can benefit from the following opportunities:

1. **Expanding The customer base:** Retail businesses in India have access to a wide range of customers because of the country's large and diverse population, which presents prospects for growth and higher sales.
2. **E-commerce Integration:** By creating an online presence and providing customers with the option to shop both online and in-store, retailers can take advantage of the expanding e-commerce market.
3. **Rural Expansion:** As more people have disposable income in these areas, new opportunities arise, so businesses can tap into a largely unexplored market by expanding into rural areas.
4. **Technology Gaining Adoption:** Using contactless payment methods, customer analytics, and inventory management technologies can boost operational effectiveness and improve the shopping experience.
5. **International Expansion:** By utilizing the "Made in India" initiative and looking into new markets, well-established retail brands may be able to find new avenues for growth.

6. **Sustainability Measures:** Using sustainable and eco-friendly methods can draw in customers who care about the environment and fit in with changing fashions.
7. **Targeted Marketing:** Retailers can more successfully reach and interact with their target audience by putting data-driven marketing strategies into practice.
8. **Customer Loyalty Programs:** Establishing and improving these initiatives can promote recurring business and enduring connections with clients.
9. **Specialized Retail:** You can meet the needs and preferences of particular customers by looking into niche or specialized retail markets, such as those for luxury goods, fitness equipment, or organic foods.

Retail establishments in India can prosper in a market that presents enormous potential for growth and innovation by seizing these opportunities and resolving the related difficulties. The purchasing habits of Indian consumers have changed in the last few years. Indian consumers now have more opportunities to shop and a constantly expanding selection of products to choose from as a result of modern retail establishments (Dalwadi, R & Rathod. (2010). [26]).

5.1. CHALLENGES FOR RETAIL STORES IN INDIA

India's retail establishments face a number of difficulties, such as:

1. **Intense Competition:** Retail players in India, both organized and unorganized, are fighting for market share in this fiercely competitive industry. Pricing pressures and the requirement for ongoing innovation may result from this.
2. **Regulatory Complexities:** State-level taxation differences, local licensing requirements, and limits on foreign direct investment (FDI) are just a few of the complicated and constantly shifting regulations that retailers must deal with.
3. **Problems with the Supply Chain:** Ineffective supply chains, which include issues with distribution and transportation, can raise operating expenses and make it harder to properly manage inventories.
4. **Infrastructure Constraints:** Poor roads and erratic electricity supplies can impede store expansion and logistics in some areas due to inadequate infrastructure.
5. **Customer Preferences:** It can be difficult to comprehend and satisfy the wide range of customer preferences found in India's various states and areas. Cultural quirks and local preferences must be taken into account.
6. **Price Sensitivity:** Indian customers are frequently price-sensitive, so it can be difficult for retailers to maintain competitive pricing while still guaranteeing profitability.
7. **E-commerce Competition:** As a result of the disruption caused by the emergence of large Indian e-commerce companies, traditional retail has been forced to adapt by combining online and offline channels.
8. **Economic Factors:** The performance of the retail industry can be impacted by consumer spending during economic downturns or fluctuations.



9. **Seasonal Demand:** Seasonal demand is a major source of income irregularity and a need for careful inventory management for many Indian retail businesses.
10. **Talent Acquisition and Retention:** In a highly competitive labor market, it can be difficult to find and keep skilled retail employees, particularly in specialized roles.

14. **Collaborations and Partnerships:** Partner with complementary businesses for cross-promotions or co-branded events.
15. **Customer Feedback and Improvement:** Actively seek and use customer feedback to improve product offerings, services, and overall shopping experience.

5.2. MARKETING STRATEGIES FOR RETAIL STORES IN INDIA

Retail businesses in India should adapt their marketing strategies to the local market, cultural behaviors, and level of competition. Here are a few successful marketing techniques:

1. **Omnichannel marketing:** To create a seamless shopping experience, combine online and offline channels. This includes using social media for promotions, having a mobile app, and having an easy-to-use e-commerce website.
2. **Localization:** adapt product offers, store designs, and marketing messaging to local preferences and geographic areas. It's important to comprehend linguistic and cultural differences.
3. **Seasonal Promotions:** Use themed sales and promotions to take advantage of India's numerous festivals and seasons. Festivals like Diwali, Holi, and others offer excellent marketing opportunities.
4. **Customer Loyalty Programs:** Put in place loyalty programs to give discounts, special access, or points that can be exchanged for future purchases as a way to acknowledge loyal customers.
5. **Influencer marketing:** Work with prominent individuals and social media influencers who have a sizable fan base to promote products and raise brand awareness.
6. **Content Marketing:** To engage customers and position your shop as an authority in your niche, produce insightful and useful content for blogs, videos, and social media.
7. **Customer Testimonials and Reviews:** Request positive feedback from pleased clients to post testimonials and reviews, as these can increase credibility and trust.
8. **Email marketing:** Use email campaigns to inform customers about events, special offers, and new arrivals as well as to promote products in a targeted manner.
9. **Based on information Marketing:** Make use of client information to divide up your target market and tailor ads so they are pertinent to each individual's tastes.
10. **Sustainability and CSR Marketing:** Since eco-consciousness is growing, emphasize any CSR programs and sustainable business practices in your marketing campaigns.
11. **Visual Merchandising:** To create a welcoming and appealing retail space, maximize advertising, window displays, and store layouts.
12. **Competitive Pricing and Promotions:** Keep an eye on the prices and promotions of your rivals to make sure your own offers are still appealing.
13. **Market Research:** Stay updated with the latest market trends, consumer behavior, and industry developments to adapt your strategies as needed.

The key to successful marketing in India's retail sector is a combination of traditional and digital strategies that resonate with the local audience while staying adaptable to the ever-evolving market dynamics. Along with inventory control, store security, and product accounting, retail marketing also entails managing sales staff, choosing, ordering, and promoting merchandise (Suguna, P., & Mathipoorani, V. (2016). [27]).

5.3. SWOT ANALYSIS

The SWOT analysis serves as the foundation for the operations of retail store management and gives it direction. This could indicate a problem that needs to be solved or lessened in order for retail establishments to survive (Weaknesses (W) or Threats (T), or it could indicate Opportunities (O) and Strengths (S) that will help retail establishments' business plans succeed in reaching their objectives. The goal is to inspire the retail sector to develop practices and policies that consider its benefits, lessen challenges, and fix errors. After analysing all of the retail store's positive and negative aspects, opportunities, and threats, information is produced and solutions are developed.

The following visual aid Demonstrates how SWOT analyses are conducted in the area of retail stores in India.

Strengths: Online marketplaces and e-commerce giants offer a wide selection and convenience, challenging traditional retail stores. Retailers need to invest in their online platforms and logistics to stay competitive. Consumers' preferences can change rapidly, making it essential for retailers to stay attuned to trends and adapt their product offerings accordingly.

The vulnerability of supply chains to disruptions, whether due to natural disasters or global crises, can lead to inventory shortages and logistical challenges. Intense competition in the retail sector can lead to price wars, negatively impacting profit margins.

The Indian retail market has undergone a revolution in the past few years. India is quickly becoming one of the most promising markets for global retailers as a result of its expanding economic benefits, improving income dynamics, growing awareness, and a customer base that is primarily composed of young people. In light of this fervent activity scenario, the purpose of this paper is to strategically analyze the Indian retail industry (Mishra, S. (2008). [28]).

Weaknesses: The retail sector in India is highly competitive with both domestic and international. Inconsistent infrastructure, logistics, and supply chain issues can pose challenge. Complex regulations and compliance requirements can be a barrier for foreign retailers and Indian consumers are often price-sensitive, leading to margin pressure.



Indian marketing channel members are performing some unnecessary tasks that make the channel structure heavy and inefficient (Sarma, M. K. (2000). [29]).

Opportunities: Retail stores can leverage the growth of e-commerce by establishing an online presence and Omni channel strategies to reach a wider customer base. The convenience of online shopping can be combined with in-store experiences, offering a seamless shopping journey. Rural markets present a significant growth opportunity due to increasing disposable income and aspirational buying.

The retailers understand that in order to obtain the best set of ordering guidelines in the business, it is strategically critical to take advantage of this economy of scale and compile all available information and experience on stock control concepts and store operations (Van Donselaar, K., & Van Woensel, T. (2005). [30]).

The Indian retail market has grown impressively and steadily as a result. Despite the impact of the the global financial crisis

on the Indian economy, the outlook for the country’s retail sector is positive (Pick, D., & Müller, D. (2011). [31]).

Threats: E-commerce giants pose a threat to brick-and-mortar retail stores and Rapidly changing consumer preferences and trends can make it challenging to adapt. Intense competition can lead to price wars, affecting profitability and Economic uncertainties and recessions can impact consumer spending. Events like the COVID-19 pandemic have highlighted vulnerabilities in the supply chain and Rapid shifts in consumer behaviour and preferences can affect product demand-commerce giants can pose a significant threat to traditional retail stores. Trade policies and relations can impact the availability and cost of imported goods.

This SWOT analysis can serve as a starting point for evaluating the retail industry in India, but it’s essential to conduct a more detailed analysis based on the specific context of your retail business.

Strengths	Weaknesses
<ul style="list-style-type: none"> ➤ Large and diverse consumer base ➤ Growing middle class ➤ Local sourcing opportunities ➤ E-commerce integration ➤ Cultural sensitivity ➤ Growing Consumer Market ➤ Diverse Product Range ➤ Economic Growth ➤ Local Sourcing 	<ul style="list-style-type: none"> ➤ Regulatory challenges ➤ Competition ➤ Infrastructure limitations ➤ Seasonal demand ➤ Price sensitivity ➤ Intense Competition ➤ Infrastructure Challenges ➤ Regulatory Complexities ➤ Price Sensitivity
Opportunity	Threats
<ul style="list-style-type: none"> ➤ Urbanization ➤ Digitalization ➤ Franchise and partnerships ➤ Private label and customization ➤ Health and wellness trends ➤ E-commerce Integration ➤ Rural Expansion ➤ Private Labels ➤ Sustainability Focus 	<ul style="list-style-type: none"> ➤ Economic fluctuations ➤ Global supply chain disruptions: ➤ Changing consumer preferences ➤ Online competition ➤ Geopolitical factors ➤ E-commerce Competition ➤ Changing Consumer Preferences ➤ Supply Chain Disruptions ➤ Price wars

Source: Author

6. FINDINGS

1. Retail stores can leverage the opportunity to integrate with e-commerce platforms, providing consumers with an Omni channel shopping experience. This can enhance convenience and reach a broader customer base.
2. Expanding into rural markets presents a significant growth opportunity. Many rural areas have untapped potential and fewer established retail stores. Developing and promoting private label brands can help retail stores boost their margins and create customer loyalty. Offering unique and quality private label products can set them apart from competition.
3. Retail establishments can benefit from the growing trend of eco-friendly products and sustainability by carrying

eco-friendly products and implementing sustainable business practices.

4. The increasing prevalence of online retailers such as Amazon and Flipkart can be a significant threat to brick-and-mortar stores. They must either change to fit the online environment or figure out how to add online products to their physical stores.
5. Retail establishments must constantly adjust to the rapidly shifting trends and preferences of their customers in order to remain relevant. It is imperative that they recognize these changes and act quickly to address them.
6. Supply chain interruptions can cause confusion in the retail sector, as the COVID-19 pandemic showed. In order to reduce these risks, retailers need to concentrate on creating powerful supply chains.



7. Rivals' price wars have the potential to reduce profit margins and harm the sector. Retailers need to come up with strategies to set themselves apart from the competition that go beyond price, like providing exceptional customer service or unusual product options.
8. Retailers can use sales data analysis to spot patterns, like which products are selling well and when in the year. Customers' preferences, age, and gender can all be taken into account when creating marketing campaigns and product offerings.
9. Finding out if there is excess stock, understocking, or slow-moving items is crucial for efficient inventory management. Collecting and analysing customer feedback can reveal areas for improvement in customer service or product quality.
10. Identifying instances of theft or shrinkage and implementing security measures to prevent such losses.
11. Assessing the store's layout and visual merchandising to improve customer flow and increase sales.
12. Evaluating employee performance, customer service, and training needs and Monitoring competitors in the area to understand their pricing, promotions, and customer base.
13. Investigating the use of technology like POS systems, inventory management software, or e-commerce integration.
14. Measuring the impact of marketing campaigns and promotions on foot traffic and sales.

7. SUGGESTIONS

1. India's population offers a vast and diverse customer base, presenting significant market opportunities. Retailers can leverage online and offline integration, reaching customers through both physical stores and e-commerce platforms.
2. Expanding into rural areas can tap into a largely untapped market, as increasing disposable income in these regions creates new opportunities.
3. Developing private label brands can provide higher margins and brand recognition.
4. Embracing technology for inventory management, customer analytics, and contactless payments can enhance the shopping experience.
5. It is extremely challenging to get market share because of the intense rivalry between retailers and e-commerce businesses.
6. Ineffective supply chains and logistics can lead to problems with inventory control and higher expenses.
7. Inadequate infrastructure in some areas may make it difficult for stores to grow and operate.
8. It can be difficult to recognize and satisfy the varied preferences of customers in various states and areas.
9. Because Indian customers are frequently price-conscious, retailers must continue to offer competitive prices.
10. The emergence of massive e-commerce platforms constantly compromises traditional retail.
11. In order for retail stores in India to prosper and grow in this fast-paced market, they must strike a balance between these opportunities and difficulties.

8. CONCLUSION

To sum it all up, a retail store in India works in a vibrant and varied market. Because of the vast consumer base in the nation, it presents a lot of opportunities, but it also faces a lot of difficulties, such as fierce competition, complicated regulations, and price sensitivity. A retail store should concentrate on utilizing its advantages, such as an established brand, a large product selection, and a devoted customer base, in order to succeed in the Indian retail market. It should also make investments in e-commerce, cost optimization, and controlling its inventory in order to take steps to improve its weaknesses, which include having a small online presence and high expenses for operation.

Retailers who have extensive knowledge of the market they are targeting, their rivals, and the latest developments in the retail sector. Retailers that are knowledgeable about this are better able to decide on product development, pricing, promotion, and delivery methods (Dyanel D Costa and Dr. V. Basil Hans. (2023). [32]).

For sustained growth, the store should also investigate diversification, think about going global, and continue to be flexible in response to shifting customer tastes. The retail store can overcome obstacles like economic instability and fierce competition by having an established plan of action, an adaptable business model, and a dedication to providing value to its customers. It is a recognized but tough marketplace for retail enterprises, as success in the Indian retail market demands a balance of creativity, customer-oriented approaches, and an in-depth comprehension of regionally unique characteristics.

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STUDY OF ACID-PRODUCING FUNCTION OF THE STOMACH IN PATIENTS WITH PEPTIC ULCER OF THE DUODENUM

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ABSTRACT

We examined 30 children with gastrointestinal pathology aged 7-15 years. The examined patients were divided into two main groups: group 1 included 12 patients with duodenal ulcer during an exacerbation, group 2 included 8 patients with duodenal ulcer without exacerbation and in the control group there were 10 children hospitalized with functional dyspepsia. An increase in acid-forming function was observed in two main groups, while it was significantly higher in the group of children with duodenal ulcer during an exacerbation.

KEY WORDS: duodenal ulcer, *Helicobacter pylori*, patients, acid-forming function of the stomach.

INTRODUCTION

Despite the successes achieved in the study of the pathology of the digestive organs in children's practice, interest in it does not fade, due to the high prevalence, frequent complications and early disability, leading to a decrease in the quality of life of children [4,14,18]. According to the materials of foreign and domestic statistical studies, peptic ulcer in children accounts for duodenal ulcer (duodenal ulcer) in 81% of all cases of the disease, gastric ulcer (ULCER) is observed in 13% of cases, and combined localization in 6% of cases [2,13,17].

It is known that the development of stomach diseases of the stomach and duodenum in 40-60% of adults begins in childhood. The peak incidence occurs at 10-13 years of age, boys and girls get sick with approximately the same frequency, and after 10 years of age boys get sick much more often. This fact is probably explained by the anti-carcinogenic effect of estrogens [8,16].

In childhood, the pathology of the gastroduodenal zone has its own peculiarities of course, the disease is asymptomatic for a long time, this is often due to the fact that children usually do not pay attention to their health, and therefore complications often turn out to be the first clinical manifestation of the disease [11]. Violent acute attacks, rapid course and progression end in severe traumatic operations [1,5,7,9,11].

The role of hereditary burden is one of the main risk factors for the occurrence of duodenal ulcer; the disease is transmitted in an autosomal dominant or autosomal recessive manner, not linked to sex [3,6,10,15].

In recent years there is no doubt about the etiological and pathogenetic role of *Helicobacter pylori* in the development of the ulcerative process, which contributed to the introduction of eradication therapy regimens and the widespread use of modern antisecretory drugs. Despite this, it has not yet been possible to resolve the issue of a complete cure of the ulcerative process.

Most relapses and complications leading to chronization require careful study of the role of pepsin in various parts of the gastric tract and periods of acid formation, as this determines an individual approach to the treatment of such patients. The frequent use of nonsteroidal anti-inflammatory drugs prescribed by doctors for the treatment of various diseases is the most common cause of ulceration [12].

In connection with the above, we decided to determine the features of the acid-forming functions of the stomach in children with gastrointestinal pathology.

THE PURPOSE OF THE STUDY

To study the features of the acid-forming function of the stomach in patients with duodenal ulcers using intragastric pH-metry of the stomach.

MATERIALS AND METHODS OF RESEARCH

Under our supervision, there were 30 children suffering from gastrointestinal tract pathology aged 7-15 years in 2 clinics of SamSMU. The diagnosis was made according to the Roman Criteria III. After analyzing the clinical data, the children were divided into two main groups:

Group 1 included 12 patients with duodenal ulcer during the exacerbation period, group 2 included 8 children with duodenal ulcer outside the exacerbation and the control group included 10 children hospitalized with functional dyspepsia, in whom organic pathology of the gastroduodenal zone was excluded.

In addition to routine examination methods, fibroesophagogastroduodenoscopy was determined in all children before treatment and after a course of eradication therapy. Diagnosis of *Helicobacter pylori* was determined in blood serum using the IgG test for *Helicobacter pylori*.

The acid-forming function was studied by intragastric pH-metry, probes using the Gastroscan-AGM apparatus. At the same time, the average pH level in different parts of the



stomach was evaluated, and the effectiveness of the acid-inhibiting effect of therapeutic drugs was determined, which is important in developing an optimal treatment course [3,4].

THE RESULTS AND THEIR DISCUSSIONS

Burdened heredity both in acid-dependent diseases and in the general morbidity of the digestive system was found with the same frequency in children of 1-2 groups, in the control group - hereditary gastrointestinal burden was more common on the maternal side. When distributed by gender, there were 7 (39%) boys and 5 (41.6%) girls in the 1st group, 6 (33.3%) and 4 (33.4%) in the 2nd comparison group, respectively, and 5 in the control group (27.7%) boys and 3 (25%) girls. The average age of the surveyed was 12.5 ± 3.8 years. It should be noted that the age-related shift in children with duodenal ulcer was noted towards the older age of 12-15 years and more often in boys.

According to the results of the severity of clinical symptoms, differences in pain and dyspeptic syndromes were not revealed in children with duodenal ulcer during and after exacerbation, 15.0 and 65.0% of cases, respectively, and in children of the second group - 11.8 and 41.2% of cases, unlike the control group, where the brightness of symptoms was less pronounced.

The results of fibrogastroduodenoscopy showed that the mucous membrane of the stomach and duodenum in the examined patients differed significantly, since visualization of the duodenum during fibrogastroduodenoscopy revealed significant changes in the 1st group of children in the form of erosive and ulcerative bulbitis in 83.3% of cases and in the 2nd group in 75%, in children of the control group no organic pathology of the gastroduodenal zone was revealed. According to our data, the average size of the ulcerative defect was 4.2 ± 0.22 mm (from 1 to 1.5 mm), while single ulcers occurred on average in 80% of cases, and multiple ulcers in 35%. The duration of the ulcerative anamnesis was 2 times less in group 2, which indirectly indicates a more aggressive course in the first group.

Helicobacter pylori was detected in 85% of patients in groups 1 and 2 and 20% in the control group. The secretory function of the stomach was impaired in 85% of patients with It should be noted that the age-related shift in children with duodenal ulcer was noted towards the older age of 12-15 years and more often in boys and 30% in patients of the control group.

An increase in acid-forming function was observed in two main groups, while it was significantly higher in the group of children with duodenal ulcer during the exacerbation period in 75% of cases. Clinical manifestations of hyperacidity were noted in children with duodenal ulcer during the exacerbation period (heartburn 25%, acid belching was in 41.6%, burning in the throat and chest was felt by 33.4% of children, in 25% of children with duodenal ulcer outside the exacerbation, these symptoms were less pronounced. However, in children with functional dyspepsia, this symptom was noted similarly to group 1, but less pronounced (heartburn 10%, acid belching was in 20%). When studying gastric acid, it was revealed that the level of gastric acidification in all patients had their own individual characteristics, which were to some extent related to

circadian rhythms and eating habits. The secretion of gastric contents in patients with duodenal ulcer during the exacerbation period, compared with patients outside the exacerbation, was at a lower pH level from 0.9 to 1.6.

CONCLUSIONS

Thus, the results of the studies indicate that patients with gastrointestinal pathology, regardless of the clinical variant of the disease, are characterized by a violation of the acid-forming function of the stomach, the cause of which is such features as a family history of peptic ulcer of the stomach and duodenum and carriage of *Helicobacter pylori*, long-term asymptomatic course, feeding habits of children, individual biorhythms.

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LITERATURE REVIEW OF 'RESILIENT MODERN WOMEN ENDURING CHALLENGES WITH UNWAVERING DETERMINATION: INDIVIDUALISM AND EMOTIONAL LIBERATION IN THE SELECTED NOVELS OF SHASHI DESHPANDE AND PREETI SHENOY

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ABSTRACT

The paper examines the portrayal of modern women in the novels of Shashi Deshpande and Preeti Shenoy. The study explores themes of individualism, emotional liberation, and liberal feminism, highlighting women's struggles and triumphs in contemporary society. Shashi Deshpande's works present a deep exploration of individualism, with female protagonists navigating societal and familial pressures to forge unique identities. These narratives highlight the pursuit of autonomy and self-discovery, reflecting the broader theme of individualism in a changing world. In contrast, Preeti Shenoy's novels address contemporary challenges faced by women. Shenoy's storytelling is centered on emotional liberation, showcasing how her characters break free from societal constraints, authentically expressing emotions and challenging traditional expectations. The analysis of these works provides insight into the dynamic nature of women's struggles and achievements in modern literature. It demonstrates how individualism serves as a crucial element for women to establish their identities within a patriarchal framework. Additionally, the paper underscores the importance of emotional and personal liberation in women's journey toward empowerment and self-realization. This study contributes significantly to the discourse on gender roles and aspirations, highlighting the resilience and determination of modern women in Indian literature.

KEYWORDS: Individualism, Emotional Liberation, Contemporary Challenges, Societal Norms, Female Resilience.

1. INTRODUCTION

In the realm of contemporary Indian literature, the narrative arc of women's lives, marked by resilience and the pursuit of individuality, has been a subject of profound exploration. This literature review delves into the intricate tapestry of themes such as individualism, emotional liberation, and liberal feminism as depicted in the selected works of two notable Indian authors, Shashi Deshpande and Preeti Shenoy. These authors have carved a niche in illustrating the multifaceted experiences of modern women, who navigate through societal norms and personal aspirations with unwavering determination. The characters often embark on journeys of self-discovery, challenging and renegotiating the roles assigned to them by a patriarchal society. Through a comparative analysis of Shashi Deshpande and Preeti Shenoy's selected novels, *In the Country of Deceit*, *Moving On*, *Rule Breakers*, and *Wake up, Life is Calling*. This paper seeks to highlight the evolving nature of feminist thought in Indian literature and the role it plays in shaping the discourse around modern womanhood. As we traverse through the literary landscapes crafted by Deshpande and Shenoy, this review will offer insights into how their

storytelling not only mirrors the struggles and triumphs of their characters but also reflects broader social transformations.

1.1 Aims and Objectives of the study

Feminism and self-awareness have become central themes in contemporary Indian literature in English, which has evolved significantly to reach its current prominence. The purpose of this literature review is to critically examine how Deshpande and Shenoy have addressed themes of resilience, individualism, and feminism in their narratives. It aims to uncover the layers of emotional liberation that their characters experience and the societal challenges they overcome. This study analyzes how female characters in the works of Deshpande and Shenoy evolve over time, particularly in response to challenges, to illustrate concepts of resilience and determination. It evaluates how emotional narratives within these novels serve to deepen the understanding of the inner lives of female protagonists. The study aims to add valuable insights to the field of feminist literature through a detailed study of these authors, thereby enriching the understanding of modern women's resilience as depicted in contemporary Indian literature.



1.2 Methodology

This article is based on material sourced from peer-reviewed journals, both national and international, along with a variety of secondary sources. To identify the research gap, online tools and databases such as Google Scholar, Research Gate, and Shodhganga were utilized. The research incorporates data from academic journals, doctoral dissertations, scholarly papers, and relevant websites. The study involves a detailed examination of selected feminist writers, leading to discussions on pertinent themes. Adherence to the APA Manual ensures proper academic standards. By collecting primary sources (the novels themselves) and secondary sources like academic articles and critiques relevant to the themes. Employed thematic analysis by categorizing textual evidence from these sources related to individualism and emotional liberation and incorporated contextual analysis to understand the influence of the social and historical background on the narratives.

2. LITERATURE REVIEW

2.1. Importance of Literary study

Literature can help individuals find their voices and challenge the status quo, ultimately contributing to social progress and personal growth. Literature has the power to liberate individuals from societal constraints and foster a deeper understanding of the world around them. It encourages readers to recognize the potential of literature as a force for personal and social liberation. It is through literature that individuals can connect with others from different backgrounds and gain a broader understanding of the human condition. It allows individuals to explore and understand complex emotions and experiences, fostering empathy and a deeper comprehension of the world around them. This empathetic connection is vital in recognizing and appreciating the richness and diversity of human life. (1).

2.2 Role of Education in Women's Empowerment

Education is crucial in empowering women in India, facilitating gender equality, and enabling women to participate more fully in various aspects of society. Education not only provides women with essential knowledge and skills but also boosts their confidence and expands their worldviews. This empowerment helps women challenge and move beyond traditional gender roles and societal limitations. (2) Education is a pathway to women's empowerment; Education empowers women by enhancing their knowledge, skills, and economic opportunities, allowing them to lead more independent and fulfilling lives. Women face challenges in accessing quality education, including socio-cultural barriers and economic constraints. There is a need for policy interventions and societal changes to overcome these challenges and ensure that education becomes a powerful tool for women's empowerment. (.3). Education is a powerful tool for empowering women and girls. It may discuss how access to quality education can lead to increased knowledge, skills, and opportunities for women and girls, allowing them to become more active participants in society, make informed choices, and pursue their goals. This study investigates the challenges and opportunities for women's empowerment through education. It analyzes existing research to demonstrate how factors such as poverty, gender stereotypes, and institutional cultures influence educational outcomes. (.4)

2.3 Challenges in Married Life

Hatterer emphasizes the societal pressure and stigma attached to homosexuality which often leads men to enter into heterosexual marriages to conceal their sexual orientation. Women, unaware of their husbands' true sexual identity, experience significant distress upon discovery. Women experience emotional turmoil, including feelings of betrayal, shame, and confusion. They often grappled with issues related to self-esteem and self-identity. The author highlights that the lack of societal support and understanding at the time exacerbated the women's distress. They often had to confront legal, financial, and social obstacles, making the decision even more complex. Counselling can be beneficial for these women in addressing their emotional struggles and helping them make informed decisions regarding their relationship (5)

2.4 Gender Dynamics and Cultural Critique

Exploring traditional Indian social interactions and cultural norms, the analysis reveals their contribution to gender inequality as depicted in the novels of Anita Desai and Geeta Hariharan. The study delves into the depiction of gender roles, stereotypes, and power dynamics within these narratives. The works of Desai and Hariharan serve as a critical platform, challenging traditional Indian practices that support gender inequality. The focus is on how characters combat patriarchal norms and navigate their roles in families and communities. This analysis underscores the significance of literature in understanding and confronting societal challenges. (6)

2.5 The concept of a modern new Indian woman

This article examines the evolving autonomy of the 'new Indian woman' in contemporary English literature by Indian women writers, focusing on single, career-oriented women in urban India. It discusses how these women navigate identity formation within the dual realms of family and career, balancing traditional roles and personal independence. Despite significant economic changes in urban India, there has been limited transformation in societal, cultural, and familial expectations of women. The literature reveals small but important shifts in identity negotiation, suggesting a growing fluidity in women's roles. The analysis underscores the ongoing struggle for greater autonomy among Indian women against a backdrop of persistent traditional expectations. (7)

2.6 Emerging Adulthood

This developmental stage, occurring between late teens and late twenties, is characterized by exploration, identity formation, and self-discovery. Key features include identity exploration, instability in life choices, self-focus, a sense of being in-between and open possibilities. Cultural and societal factors like education, work, and cultural expectations significantly shape experiences during this stage. Many individuals delay traditional adulthood milestones, such as marriage and parenthood, focusing instead on psychological well-being, identity development, self-esteem, and transitioning to adulthood. While this concept is pivotal in understanding young adults' challenges and opportunities, it has sparked debates in psychology regarding its universal applicability across cultures and individuals, driving further research into this unique developmental phase. (8)



2.7 Navigating Adulthood

"Mindful Twenty-Something" is a guide for young adults in their twenties, focusing on developing mindfulness and life skills during a critical life stage. The book outlines practical methods for incorporating mindfulness into everyday life to tackle stress, anxiety, and other challenges. It offers advice on key skills like communication, time management, decision-making, and overcoming adversity, with a significant emphasis on stress management techniques for academic and career pressures. The content extends to personal growth, covering goal-setting, finding purpose, and building resilience and well-being. It also addresses the transition from adolescence to adulthood, including relationship dynamics, educational and career choices, and the journey towards independence. (9)

2.8 Resilience in the face of difficulties

Ankita restarts her life after surveying the traumatic phase that includes her Bipolar Disorder, suicidal attempts, and getting admitted to the National Mental Health Institute. Ankita overcomes her mental struggles and begins her life with hope and determination to take up the Creative Writing course. However, Ankita's mental trauma reappears when she accidentally discovers a suicide manual and the re-entry of her past boyfriend. The paper attempts to study how Ankita strikes balance in her life by coping with both the internal and the external disputes. The support from her parents and her teacher plays a significant role in the process of Ankita's recovery. (10). Being a social animal, humans need to interact and associate with one another. The family, which is the fundamental pillar of society, plays an important role in shaping our personalities. Communication, support, sharing, caring, and trust in one another enable in development of strong, healthy, and secure relationships. Lack of it could have negative consequences thereby affecting the family members and causing relationships to crumble down. (11)

3. FEMINISM IN INDIAN LITERATURE

3.1. Feminism in Shashi Deshpande's novels

Shashi Deshpande writes about the web of family relationships, particularly those in extended family set-ups. The kaleidoscopic variety of characters is amazing. Deshpande never seems to have lost her hold on her characters, male or female ones -- the author devotes much larger space for the delineation of her women characters. The variety is infinite, and each character has its uniqueness. Deshpande's unflinching gaze tracks the suffering, evasions, and lies that overtake those caught in the web of subterfuge. There are no hostages taken in the country of deceit; no victors; only scarred lives. The book revolves around the tumultuous twist given to the life of the protagonist, Devayani, as she breaks all set norms in the pursuit of happiness. (12)

3.2. Complex evolution of man-woman relationships

The saying "a man is incomplete without a woman" encapsulates the complex evolution of man-woman relationships, historically viewed as a biological necessity and deeply explored in literature. In India, women's status has fluctuated significantly, from enjoying equal rights in the Vedic Period to facing diminished societal roles in later times, often influenced by religious texts and societal norms that typically

promote male dominance. The advent of British rule in India further suppressed women's rights, but the introduction of English education and Western ideas later spurred a resurgence in their societal roles, with figures like Ramabai Ranade and Sarojini Naidu playing key roles in women's empowerment. Despite global challenges like broken homes and divorce, the enduring strength of maternal and spousal devotion reflects women's resilience. Legal perspectives, like those of William Blackstone, historically depicted marriage as absorption of a woman's legal identity into her husband's. However, the rise of feminism has led to a shift in literature, now portraying women with more complexity and autonomy, beyond traditional depictions as mere extensions of men. (13).

3.3. Women's writing and its impact

The larger changes in intellectual, socio-cultural reconstruction, and multi-dimensional of Women's image, role, and status that were part of the widespread social movements of the entire 19th century gave Women's writing clear focus and purpose (14) Shashi Deshpande's novels are concerned with a woman's quest for self; an exploration into the female psyche and an understanding of the mysteries of life and the protagonist's place in it. She employs situational, attitudinal, and verbal irony to tell effect. (15) In ancient times, women were considered with respect and dignity. During this period, there were women rishis, and they were held in high esteem. In royal households, women were given respect and they even rendered a significant contribution in the making of decisions and administrative functions. They were made aware in terms of all areas and played an important part in politics as well.. (16)

3.4. Marriage and Family system, the Present Scenario

As in many countries in Asia, families in Indonesia are experiencing substantial change as new patterns of marriage emerge. Currently, a significant number of adults are ignoring the traditional standards for men's and women's appropriate marriage ages. Utilizing Indonesian census data from various years and in-depth interviews with 35 never-married women, this study describes the trends and patterns of singlehood among adults in Yogyakarta and Medan. It also explores the lifestyles of single women, including the process of remaining single, views toward marriage, and how they cope with the social stigma of being single. (17).

3.5. Female Identity

It is a very complicated concept in the contemporary era. In addition to that, it becomes more complicated when discussing gender socialization, violence, and exploitation. Women have been viewed and perceived within the constructed patriarchal structure of gender difference. In the domain of patriarchal culture, the woman is a social construct. Contemporary writers are critiquing the unspoken voices to explore their exploitation in various domains. Feminism is a highly innovative concept representing a significant departure from the traditional mode of critical evaluation. In the selected novels both writers represent a series of female characters who have been exploited. They project realistically the women's plight and exploitation in the patriarchal society. It explores how men establish their masculine power and fulfil their desires by assaulting women. (18)



3.6. Clash between Tradition and Modernity

Kamala Markandaya poignantly explores the theme of cultural clashes, delving into the conflicts between tradition and modernity, rural and urban life, and the interactions between Eastern and Western cultures. These clashes are particularly portrayed through the experiences of her female protagonists, underscoring the unique impact of such conflicts on women. In a similar vein, both Markandaya and Shashi Deshpande focus extensively on women's issues and aspirations, with Markandaya's characters often navigating and overcoming difficulties, while Deshpande's narratives delve into the deeper complexities of women's lives, touching on themes like sexuality and man-woman relationships. (19)

3.8 The quest for selfhood

It is a central theme in the novels of contemporary Indian women writers, reflecting the patriarchal society's tendency to define women by their familial roles rather than their individuality. Educated Indian women, influenced by women's movements and the ideology of the 1970s' second-wave feminism, are increasingly recognizing their identities and seeking personal freedom and equal treatment. This quest for emancipation is characterized by a demand for both personal and social space, challenging oppressive customs and domestic confines. This emerging self-awareness and the struggle for recognition and acceptance are vividly depicted in the novels of authors like Kamala Markandaya, Anita Desai, Shashi Deshpande, and Anita Nair. Through dynamic female characters, these writers explore the Indian woman's journey to challenge societal norms, redefine her values, and carve out her own identity beyond traditional roles. (20)

3.9 Troubled Marital Relationships

The paper provides a comparative analysis of marital disharmony in the works of Shashi Deshpande, an Indian English writer, and Varsha Adalja, a Gujarati writer. It aims to understand the causes and consequences of troubled marital relationships in the narratives of both authors. Deshpande focuses on the inner conflict and distress experienced by the modern, educated Indian woman, torn between traditional patriarchal expectations and her aspirations for self-expression, individuality, and independence. Similarly, Adalja portrays the struggles of women trapped in marriages with unsuitable partners. Both authors explore the journey of these women as they seek love and peace amidst their tumultuous marital lives. This comparative study sheds light on the broader condition of women facing marital disharmony and its impact on their quest for personal fulfilment. (21). The authors- anthropologists, sociologists, ethnologists, neurologists, and psychologists- consider the structural position of women; how they are defined by reference to physiological and social markers, and how they are required to behave. They also consider ways in which different cultures identify and deal with such natural' aspects of women as virginity, sexuality, and childbearing. (22)

4. WOMEN IN PREETI SHENOY'S WRITING

The paper by Rebello and D'Sa, published in 2023 in the International Journal of Innovations & Research Analysis, offers a compelling study on overcoming loneliness through the lens of Preeti Shenoy's novel "The Rule Breakers." The authors

effectively dissect the narrative and its thematic elements, drawing connections between the fictional experiences and real-world strategies for dealing with loneliness. Their analysis is both insightful and empathetic, providing a nuanced understanding of the emotional landscape navigated by the characters. This study is valuable for its exploration of literary works as mirrors of human experiences; specifically focusing on the often-overlooked subject of loneliness (23) Shenoy's work is celebrated for its realistic and empathetic depiction of women's lives, encapsulating their struggles, triumphs, and resilience against societal norms. Bishoyi's analysis is distinguished by its intersection of literary critique with gender studies, highlighting how Shenoy's narratives mirror the multifaceted experiences of women in modern society. The study is a testament to the power of literature in influencing and reflecting societal perceptions and attitudes toward women. It is an insightful contribution to the field, shedding light on the role of contemporary literature in shaping gender discourse and offering a nuanced perspective on the dynamics of female empowerment and representation. (24)

4.1. Psychoanalytic Theory

Psychoanalysis is one of the modern theories that are used in English literature. The modern theory that is used in literature has two accepted meanings. Firstly, it means a method of treating mentally disordered people. Secondly, it also goes to mean the theories on the human mind and its various complexities. Psychoanalytic theory was propounded by Sigmund Freud. It a theory of personality organization and dynamics, is a prominent approach in English literature and literary criticism. This approach is essential for uncovering hidden meanings in literary texts and exploring the influence of an author's personal experiences on their work. It delves into the intricate relationship between the conscious and unconscious mind, shaping behavior and literary expression. This exploration seeks to understand how authors have incorporated psychoanalytic elements into their narratives. (25)

4.2. Bipolar Disorder in Adolescence," Bipolar disorders are chronic and recurrent disorders that affect 1% of the global population. Bipolar disorders are the leading causes of disability in young people as they can lead to cognitive and functional impairment and increased mortality, particularly from suicide and cardiovascular disease. Psychiatric and nonpsychiatric medical co morbidities are common in patients and might also contribute to increased mortality. Bipolar disorders are some of the most heritable psychiatric disorders, although a model with gene-environment interactions is believed to best explain the etiology. Early and accurate diagnosis is difficult in clinical practice as the onset of bipolar disorder is commonly characterized by nonspecific symptoms, mood lability, or a depressive episode, which can be similar in presentation to unipolar depression. Moreover, patients and their families do not always understand the significance of their symptoms, especially with hypomanic or manic symptoms. As specific biomarkers for bipolar disorders are not yet available, careful clinical assessment remains the cornerstone of diagnosis. The detection of hypomanic symptoms and long-term clinical assessment are crucial to differentiate a bipolar disorder from other conditions.(26)



5. SUMMARY OF PREVIOUS RESEARCH FINDINGS

S.No	Focus	Contribution	References
1.	Role of literature in social progress and personal growth.	It helps to gain a broader understanding of the human condition	Cary, M. (1976).
2	Role of education to break free from traditional gender roles and societal constraints.	Promotes gender equality and women's empowerment.	Bhat, R. A. (2015)
3	It delves into the challenges women face in accessing quality education, including socio-cultural barriers and economic constraints.	Promotes gender equality and women's advancement in various aspects of life.	Srivastava, N. (2014).
4	Education is a powerful tool for empowering women and girls.	Active participation to pursue the goals	McCracken, K., Unterhalter, E., Márquez, S., & Chelstowska, A. (2015)..
5	. Women unaware of their husbands' true sexual identity, which causes them significant distress upon discovery.	Helping such women make informed decisions regarding their relationships.	Hatterer, M. S. (1974).
6	Explores how traditional Indian social interactions and cultural norms contribute to gender inequality.	literature as a means to shed light on the complexities of gender dynamics in India	Patil, S. A. (2018).
7	The levels of autonomy and self-definition of the 'new Indian woman' in the contemporary literature written in English by Indian women writers...	the identities of women may be more fluid than they had previously been permitted to be.	Lau, L. (2010).
8	, "Emerging adulthood," is a distinct stage of development that occurs between adolescence and young adulthood.	Unique challenges and opportunities faced by young adults during this transitional phase of life.	Arnett, J. J. (2000)
9	focus on helping young adults in their twenties develop mindfulness and life skills to navigate the challenges and stresses of this transitional period.	This can help them manage stress, anxiety, and other challenges.	Rogers, H. B. (2016)
10	How to strike balance in life by coping with both the internal and the external disputes.	The support from parents and teacher play an important role	Magishavarthini, S., & Niranjani, S. R. (2022)
11	Being a social animal, man needs to interact and associate with one another.	. In the progression of touching human emotions and thoughts, writers employ psychological realism as a key factor in tying the stories in the field of literature	Prema, S., Arputhamar, A., & Manikandan, R, 2020.
12	Elucidate the complex and often unpredictable nature of female psychology as depicted in Deshpande's novel	Provides insightful perspectives on the intricate dynamics of women's inner lives and their societal roles.	Kumari, Y. K. (2018).
13	A man is incomplete without a woman.Man-woman relationship is as old as human existence	Feminine identity has become expression of feminism in Indian context	Sab, S. N. B. M. (2023).
14	Indian English literature has been making great strides during the last few decades thereby attracting the international attention.	Literature has always been a means of raising voice for the emancipation of women	Dilipbhai, S. M. (2020)..
15	Exploration into the female psyche and an understanding of the mysteries of life	Revolt against the traditions in their search for freedom .	Kubavat, R. (2020).
16	The main purpose of this research paper is to acquire an understanding of the status of women in ancient India	In ancient times, women were considered with respect and dignity..	Kapur, R. (2019).
17	. Currently, a significant number of adults are ignoring the traditional standards for men's and women's appropriate marriage ages.	Most women agreed that marriage remains an ideal norm, but it does not mean that being single can not result in a satisfied and happy life.	Situmorang, A. (2007).



18	The present research work tries to probe into the silences, subordination and voices of exploited women by undertaking a comparative study of the selected novels of Shashi Deshpande and Mridula Garg by using feminism as a theoretical framework..	The present study tries to explore the female identity which is constructed by the socio-cultural aspect.	Sen, R. K. (2019).
19	.. The conflicts are often depicted as a struggle between personal aspirations and societal expectations.	Women aim at personal aspirations	Antil, S. (2021)
20	The quest for selfhood The concept of the human 'self' has its roots in cultural history and has	The concept of the human 'self' has its roots in cultural history and has	Moti, R. R. (2016).
21	The paper attempts to compare the marital disharmony in the selected novels of Shashi Deshpande, Indian English Writer and Varsha Adalja, Gujarati Writer..	Paper will analyze the condition of women, due to disharmony in marriage	Ranpura, J. A. (2020).
22	This particular book might delve into how societal norms and cultural contexts shape the understanding of womanhood and femininity	. The book examines the societal and cultural perceptions of women, including aspects like virginity, sexuality, and childbearing, from a variety of geographical perspectives.	Ardener, S. (Ed.). (2020). .
23	compelling study on overcoming loneliness through the lens of Preeti Shenoy's novel "The Rule Breakers	specifically focusing on the often overlooked subject of loneliness.46	Rebello, S. J. A., & D'Sa, D. K. T. (2023).
24	embarks on a comprehensive exploration of female representation in Shenoy's literature	This paper stands out for its detailed examination of character development, thematic depth, and its broader implications in the context of gender equality and societal change.	Bishoyi, D. (2022).
25	It delves into the intricate relationship between the conscious and unconscious mind,	Incorporated psychoanalytic elements into their narratives	Hossain, M. M. (2017).
26	a comprehensive examination of bipolar disorder in adolescent populations	Contributes to challenging and critical area of mental health.	Vieta, E., Berk, M., Schulze, T. G., Carvalho, A. F., Suppes, T., Calabrese, J. R., & Grande, I. (2018).

LITERATURE GAP

The research titled "Resilient Modern Women: Overcoming Adversity with Steadfast Determination – Individualism and Emotional Freedom in Selected Works of Shashi Deshpande and Preeti Shenoy" aims to fill several gaps in literature studies. It primarily focuses on the distinct depiction of contemporary Indian women in the works of Deshpande and Shenoy, particularly examining themes of individualism and emotional independence. The study also highlights the need for a comprehensive exploration of emotional freedom as a unique subject in the realm of Indian literature concerning women. It investigates the underrepresented theme of emotional liberation, especially in the context of societal hurdles faced by women. Furthermore, the research traces how the representation of strong, resilient female characters in Indian literature has evolved over time. It provides new perspectives on how these authors have portrayed women's resilience. The study is also significant for its analysis of the complex interplay of gender, social class, caste, and other identities in these novels. This aspect is particularly noteworthy as it remains relatively unexamined in the current body of literature

CONCLUSION

Shashi Deshpande and Preeti Shenoy in their novels portray women as resilient, strong, and challenging. They fiercely oppose exploitation and break the traditional role of being subservient. Women demonstrate the ability to effectively resolve their own problems. Positive affirmations serve as a powerful tool for self-motivation, fostering positive life changes, and enhancing self-esteem. The protagonists believe in self-affirmation and self-assertion. When we study the characters closely we learn that by regularly practicing positive affirmations, one can counter the subconscious negative thoughts and replace them with more constructive narratives. To achieve lasting and significant changes, it's important to consistently practice positive affirmations. Their work provides a nuanced perspective on the intricate balance between traditional values and the pursuit of individual freedom. The exploration of these themes in their novels not only contributes significantly to Indian literary discourse but also resonates with the broader global conversations around gender, culture, and identity. This study thus marks an important step in acknowledging and appreciating the diverse voices and experiences of women in Indian literature, paving the way for further scholarly exploration in this field.



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EXPLORING FINANCIAL PERSPECTIVES: INVESTMENT PATTERNS AMONG STUDENTS AND EDUCATORS AT SWASTIKA NATIONAL BUSINESS SCHOOL

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ABSTRACT

This study delves into the dynamic landscape of investment behaviours among students and teachers at Swastika National Business School. Focusing on understanding the financial decisions made by these key stakeholders, our research employs a comprehensive survey methodology to gather insights into investment preferences, risk tolerance, and the factors influencing their investment choices. Through a nuanced analysis, we aim to unveil the intricate interplay between financial literacy, investment knowledge, and individual risk appetites, shedding light on the diverse strategies employed within the academic community. The findings from this study can provide valuable insights into financial education and practical implications for enhancing investment literacy programs within educational institutions. As the economic landscape continues to evolve, this research serves as a timely exploration into the investment mind-set of those shaping the future business leaders. It underscores the importance of fostering a financially savvy academic community.

INTRODUCTION

Investment behaviour refers to the decisions and actions individuals or entities undertake when allocating their resources, such as money or assets, to different investment opportunities. It encompasses the choices made regarding where and how to invest, the level of risk one is willing to accept, and the timeframe for investment. Investment behaviour can vary widely, influenced by risk tolerance, financial goals, market conditions, and economic outlook. Understanding and analysing investment behaviour is essential for making informed financial decisions, managing risk, and achieving investment objectives.

Teaching is a widely esteemed profession worldwide. Teachers play a crucial role in society, especially in developing countries like India, as they shape the future through education. A teacher's competence significantly impacts the quality of education. Various factors determine a teacher's professional growth, and one of the critical factors is their quality of life.

A teacher's quality of life is closely associated with their living standard, including material possessions such as homes, cars, and jewellery. Additionally, the ability to allocate resources for entertainment, health, education, and various life experiences affects their standard of living. These financial decisions are linked to income, consumption, savings, and investment. The monetary behaviour of teachers, in turn, profoundly impacts

their quality of life and subsequently affects their performance in their profession and the education system as a whole. Therefore, researching to understand and improve the financial behaviour of teachers becomes a crucial aspect of educational reform.

Students' behaviour regarding money and investment is crucial as it directly shapes their financial future and influences broader economic stability. By instilling responsible investment behaviour and financial literacy in students, we empower them to make informed financial decisions, ensure long-term financial stability, and contribute to economic growth. Students who grasp the principles of investment are more likely to accumulate wealth, prepare for retirement, and reduce financial stress, ultimately benefiting both individual well-being and society.

The purpose of studying the behaviour of teachers and students in the context of investment is twofold. For teachers, it aims to assess how their financial behaviour and knowledge influence their ability to effectively impart investment education to students, thereby impacting the quality of financial education in the classroom. For students, the objective is to understand their investment behaviour, as it directly shapes their financial future. By evaluating and enhancing the investment behaviour of both teachers and students, we can ensure that students receive valuable financial education and are better prepared to



make informed investment decisions, ultimately contributing to their long-term financial well-being and overall economic stability.

METHODOLOGY

In conducting this case study, the methodology employed was centred on the collection and analysis of qualitative data to delve into the perspectives of both teachers and students regarding investments across different fields. The primary data-gathering method involved in-person interviews featuring a structured question-answer section. Nine teachers and nine students actively participated in these interviews, carefully selected from a pool of teachers and students engaged in diverse forms of investments for the research study.

The backdrop of the study is SNBS College, a recently established institution with a relatively modest student population and a restricted number of lectures. Within the staff of 13 members, data was gathered explicitly from 12 individuals, and among 120 students, the data was collected from 50 students actively investing their money in savings.

Additionally, it was noted that all students in the college are part-time workers in various companies. This information uniquely focuses on the financial habits of a subgroup of staff members dedicated to saving money.

To enhance the validity of the findings, a comparative analysis was conducted, drawing parallels and distinctions between the responses of teachers and students. This approach offered a more holistic understanding of their views on investments. The study outcomes were effectively presented using data visualization techniques, ensuring enhanced accessibility and comprehension. A comprehensive discussion of the findings took place within the broader context of investments, incorporating considerations of potential implications and recommendations for future research or practical applications.

In addressing potential limitations, such as sample size or biases, the methodology remained transparent and acknowledged these constraints. The entire process culminated in creating a thorough case study report, providing valuable insights into the viewpoints and encounters of teachers and students concerning investments in various fields.

Table 1: Features of investment Avenues

Investment Avenues	Risk	Return/Current Yield	Capital appreciation	Liquidity/Marketability	Tax benefits
Post office	Low	Moderate	High	High	Moderate
Bank deposit	Low	Low	Nil	High	Moderate
LIC	Nil	Nil	Low	Low	Moderate
Gold	Low	Nil	High in Long term	Moderate	Nil
Shares	High	Low	High	High	High
Property/Real estates	Low	Low	High in long term	Moderate	Changes according to rules

Table 2: Demographic profile of Respondents (Teachers)

STATUS	RESPONDENTS	PERCENTAGE (%)
Female	12	100
Total	12	100
Age		
Below 24 years	02	17
25 to34 Years	02	17
35 to44 Years	03	25
45 to54 Years	02	16
Above 55 years	03	25
Total	12	100
Education Qualification		
PG	10	83
Doctorate	02	17
Total	12	100
Marital status		
Married	09	75
Unmarried	03	25
Total	12	100
Monthly Income		
20,000-24,000	07	58
25,000-29,000	04	34
Above 30,000	01	08
Total	12	100



Objectives of Saving		
Child Education	02	17
Retirement	03	25
Marriage of Children/for self	05	41
Health care	02	17
Total	12	100
Percentage of Saving in their total income		
Less than 25%	05	42
More than 25%	04	33
More than 50%	03	25
Total	12	100
Mode of major investment		
Bank deposits	01	08
Shares, Debentures	01	08
Property / Real Estate	02	17
Gold Scheme	03	25
Post Office Schemes	02	17
Mutual Funds	01	08
Insurance(LIC)	02	17
Total	12	100
Frequency of investment		
Monthly	08	66
Quarterly	02	17
Once in 6 months	02	17
Total	12	100
Purpose of investment		
Income	04	33.5
Tax saving	01	08
Savings growth	03	25
Liquidity	04	33.5
Total	12	100

Table 2 illustrates that the entire respondent pool comprises females. Among these, 25% fall within the age range of 35-44 years, while an equivalent percentage exists for those above 55 years. Additionally, 15-34-year-olds constitute 17% of respondents, and 45-55-year-olds make up 16% of those engaged in investments. In terms of educational qualifications, 83% of respondents have completed only postgraduate studies, while the remaining 17% hold doctorates. Married female teachers exhibit a savings pattern where 75% save, while the remaining 25% choose to invest. When considering income brackets, teachers earning between 20,000-24,000 save 58%, those earning 25,000-29,000 save 34%, and those earning above 30,000 allocate 8% to savings. Examining the motives

behind savings, 17% save for children's education, 25% for retirement, 41% for marriage and personal purposes, and 17% for healthcare. Regarding the percentage of total savings from income, 42% save less than 25%, 33% save more than 25%, and 25% save more than 50%. Concerning investment preferences, 25% of teachers invest in gold, 17% in property, post office, and insurance, and 8% in bank deposits, shares, and mutual funds. The investment frequency indicates that 66% invest monthly, 17% invest quarterly, and 6% invest once in 6 months. Lastly, the purposes of investment include 33.5% for income and liquidity, 25% for savings, and 8% for tax savings among teachers.



Table3: Demographic profile of Respondents (Students)

STATUS	RESPONDENTS	PERCENTAGE (%)
Gender		
Male	28	56
Female	22	44
Total	50	100
Education Qualification(BBA/B Com)		
1 st year	15	30
2 nd year	19	38
3 rd year	16	32
Monthly Income		
5,000-10,000	16	32
10,000-15000	22	44
Above 15,000	12	24
Total	50	100
Objectives of Saving		
Education purpose	14	28
Business purpose	18	36
Savings	16	32
Health care	02	04
Total	50	100
Percentage of Saving in their total income		
Less than 25%	14	28
More than 25%	19	38
More than 50%	17	34
Total	50	100
Mode of investment		
Bank deposits	22	44
Shares, Debentures	08	16
Property / Real Estate	04	08
Post Office Schemes	08	16
Mutual Funds	06	12
Insurance(LIC)	02	04
Total	50	100
Frequency of investment		
Monthly	41	82
Quarterly	09	18
Total	50	50
Purpose of investment		
Regular Income	14	28
Long term Savings	22	44
Liquidity	14	28
Total	50	100

Table 3 provides insights into various aspects of investment and savings among different groups. Here's a summarized interpretation:

It may be noted here that the students responded are all on parttime employment and hence have individual income. Investment by Gender: 56% of males and 44% of females are involved in investment activities. Investment by Academic Year: 38% of 2nd-year students, 32% of 1st-year students, and 30% of 1st-year students are engaged in different modes of investment. Income Distribution: 44% of students earn 10,000-15,000 monthly income, 32% earn 5,000-10,000, and 24% earn above 15,000. Purpose of Savings: 36% of

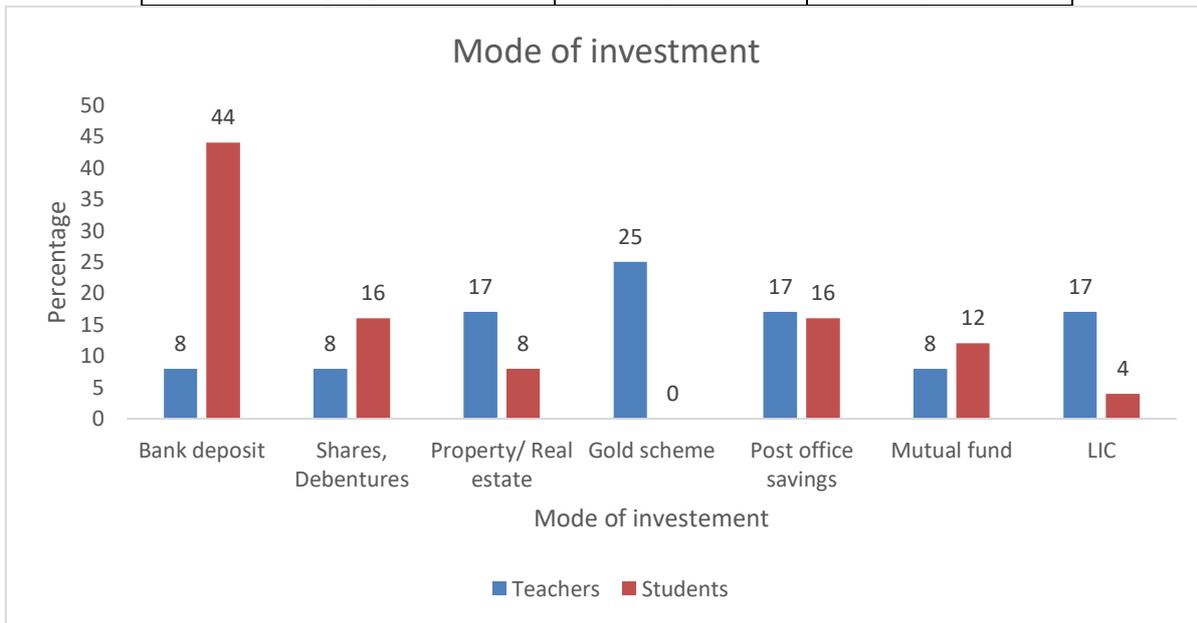
students save for business, 32% for general savings, 28% for education, and 4% for healthcare. Savings Percentage: 25% of students save less than 25% of their total income, 38% save more than 25%, and 34% save more than 50%. Modes of Investment: 44% prefer bank deposits, 16% choose shares and post office, 8% invest in property, 12% in mutual funds, and 4% in LIC. Teachers' Investment Behaviour: 82% of teachers invest monthly, while 18% invest quarterly. Purpose of Teacher's Investment: 28% of people invest for income and liquidity, while 44% of teachers invest for savings. The table provides a comprehensive overview of the investment and savings patterns among different groups, offering insights into



gender-based, academic year-based and income-based variations.

Table 4: Features of Investment Avenues

Mode of Major Investment	Teachers	Students
Bank deposit	08	44
Shares, Debentures	08	16
Property/ Real estate	17	08
Gold scheme	25	Nil
Post office savings	17	16
Mutual fund	08	12
LIC	17	04
Total	100	100



Graph 1: Mode of investment of teachers and student

When comparing the investment mode in bank deposits, shares, and debentures, mutual fund students' involvement is more significant. On the other hand, property/ real estate, post office savings, and LIC teachers' involvement are more. Students are interested in something different than investing in gold. None of the students invested in gold.

DISCUSSION

Exploring the Financial Perspectives of Teachers and Students

In the realm of personal finance, the choices individuals make regarding investments are often shaped by many factors, including risk tolerance, financial goals, and knowledge. The narratives of teachers and students regarding their investment preferences provide a fascinating insight into the divergent approaches taken by these two groups.

Teachers' Pragmatic Approach: As custodians of knowledge, teachers showcase a pragmatic approach to financial planning. The predominant choice of savings accounts (SB) as a primary investment vehicle reflects the desire for liquidity and accessibility. The ability to withdraw funds swiftly in case of emergencies is deemed paramount by many teachers, highlighting the importance they place on financial security.

Furthermore, the transition from savings accounts to fixed deposits (FD) over time underlines a gradual shift toward long-term financial planning. The safety and assured returns offered by FDs align with the risk-averse nature of many teachers. Gold and Life Insurance Corporation (LIC) premiums emerge as popular choices, with teachers recognizing the tangible value of gold and the long-term security LIC policies offer.

However, the reluctance to venture into shares is notable. Often rooted in a perceived lack of knowledge, the apprehension points to an area where financial education could play a pivotal role. The belief that shares entail long-term commitments and are less liquid in emergencies echoes the conservative sentiment prevalent among teachers.

A notable exception emerges in the form of a teacher who ventured into the stock market. Her success story, transitioning from investing in shares to establishing a fast-moving consumer goods mart, highlights the potential rewards of strategic financial risk-taking. This case is a testament to the transformative power of informed investment decisions and entrepreneurial endeavours.



Students' Ventures into the Stock Market

In contrast to the conservative approach of teachers, students showcase a greater inclination towards risk-taking, particularly in the realm of shares. Varun's experience of successfully investing in shares and subsequently allocating the returns into a new business and a savings account reflects students' dynamic and opportunistic mind-set.

The motivation behind students' ventures into the stock market extends beyond financial gain. For students like Raghunandan, investing in shares and mutual funds is a means of acquiring an in-depth understanding of the complexities within the realm of finance. The emphasis on in-depth knowledge and the potential for significant rewards underscores a different set of priorities than their teaching counterparts.

Raghunandan's strategic approach, withdrawing shares and redistributing investments based on a nuanced understanding of long-term and short-term goals, exemplifies the capacity of students to synthesize financial knowledge gained during their academic journey.

Educational Intervention: Bridging the Knowledge Gap

The stark contrast in investment strategies between teachers and students underscores the potential benefits of financial education initiatives. Equipping teachers with a better understanding of the stock market and alternative investment avenues could empower them to make more informed decisions, fostering a sense of confidence in exploring diverse financial instruments.

Conversely, students could benefit from a comprehensive financial curriculum that imparts theoretical knowledge and emphasizes the practical aspects of managing investments. Bridging the knowledge gap between these two demographics could lead to a more holistic and informed approach to personal finance.

CONCLUSION

A rich tapestry of financial narratives lies in the dichotomy between teachers' prudence and students' venturesome spirit. The stories of success, caution, risk-taking, and conservatism collectively contribute to a nuanced understanding of individuals' diverse approaches to securing their financial futures.

As we overview through the intricate terrain of personal finance, the integration of financial education becomes imperative, fostering an economically stable society that is well-equipped to embrace the opportunities presented by the dynamic world of investments.



LITERATURE REVIEW ON DETERMINANTS OF INVESTMENT CHOICE IN INDIAN POST OFFICE SCHEMES

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ABSTRACT

There are multiple investment options around us. We must select the best investment choice to achieve our overall objectives. The Indian Post offers numerous savings schemes with high returns and safety. Post office schemes have long been famous for individuals seeking secure and hassle-free investment options. Understanding the factors that drive investors' choices within these schemes is crucial for policymakers and financial institutions. One of the prominent factors explored in this review is demographic characteristics. Age, generation, and gender have emerged as significant determinants of investment preferences. Older investors, particularly senior citizens, find postal schemes appealing because of their simplicity and perceived safety.

Moreover, female investors exhibited a strong inclination toward these schemes. Financial security and tax benefits play a pivotal role in shaping investment decisions. Investors are drawn to post office schemes because of the guaranteed returns offered by the government and the tax incentives associated with these investments. The review also highlights the impact of educational qualifications on investment choices, shedding light on how individuals with different educational backgrounds perceive these schemes.

The study underscores that despite a professional culture within the post office sector, customers' perceptions of India Post remain positive. Investors appreciate the rarity of fraud and malpractice associated with post office schemes. Additionally, these schemes' consistent and attractive returns contribute to their popularity. Investors' motivations for choosing post office schemes vary, from meeting domestic financial goals to securing a stable retirement. Accessibility, ease of management, and perceived security are critical factors driving investment decisions.

Furthermore, the review observes that rural investors, especially women, are attracted to post office schemes because of the proximity of post office branches to their residences. Parents also expressed high satisfaction with depositing savings in these schemes, primarily because of their risk-free nature and associated tax benefits. This literature review offers valuable perspectives on the factors influencing investment choices in Indian post office schemes. This study highlights the significance of demographic, economic, and psychological factors in shaping investor preferences and underscores the enduring appeal of these schemes in the country's financial landscape.

KEY WORDS: Savings, investments, Post office, Financial, Interest.

INTRODUCTION

Post office savings have a long-standing tradition in India, dating back to 1880 A.D., when formal savings practices were scarce in the country. The Indian post office savings system is India's most significant saving bank, boasting an extensive network of 1,55,000 branches across the nation. Many of these branches are strategically located in remote areas where modern banking services are still available. While the Indian economy has evolved and offers many investment opportunities, the Government of India upholds this age-old investment option. Post office savings present two distinct investment alternatives: direct and indirect. Among these, the post office holds a

prominent position because of its exceptional reliability and enjoys the trust of many investors.

The Post Office Savings Bank, India's oldest and largest banking system, serves the investment needs of both urban and rural investors. It operates as an agency service for the Ministry of Finance and the Government of India. Savings result from surplus income, and their growth relies on the ability and inclination to set aside funds. Taxes, collected by the government, are a form of cumulative savings effectively used for the country's development. Economists note that the savings-to-income ratio in India is steadily increasing, despite



a growing population. In a developing nation such as India, small savings play a pivotal role. These savings benefit the government and individuals, allowing them to channel their income effectively. As public expenditure increases, the government must explore diverse income sources to fulfill the needs of its citizens.

Financial literacy encompasses a broad spectrum of essential financial skills and concepts. Individuals with financial understanding are less likely to engage in financial misconduct. A solid foundation in financial literacy can support various life objectives, including saving for education or retirement, responsible debt management, and entrepreneurial endeavors. India Post, also known as the Department of Posts, boasts the world's most extensive postal network, reaching remote villages, hilly regions, and tribal territories. This vast network facilitates communication with all segments of the population. The Indian Postal Service is actively addressing evolving challenges and fulfilling its role as a promoter of communication and development in the changing socioeconomic landscape. In response to the financial sector's liberalization over the past decade, the post office is committed to meeting heightened customer expectations by establishing specialized offices that offer various financial services, including small deposits, aligning with global postal service trends.

OBJECTIVES

The existing study was conducted with the following objectives in mind:

1. To understand the diverse factors that individuals consider when investing in post office schemes.
2. To identify factors that significantly impact investment decisions in post office schemes.

RESEARCH METHODOLOGY

This research examines the elements that impact individuals' investment decisions in post office schemes. This study employed a structured approach, including a literature review and qualitative research methods. This study used Content Analysis, an organized research technique for qualitative and quantitative textual information analysis. Content analysis systematically identifies words, themes, or concepts within qualitative data. The research conclusions are based on the articles' frequency and occurrence of these elements. The content extraction process was facilitated through categorizing and developing themes.

REVIEW OF THE LITERATURE

Kabra (2010) revealed that an individual's willingness to embrace risk is subject to the influence of age and gender. Singh's (2018) individual-to-investor sentiments concerning savings plans in Himachal Pradesh reveal that a substantial portion of the employed population gravitates toward the post office scheme. This preference is primarily attributable to the government's guaranteed safety and return stability and various tax incentives. The principal investment government outlined in this study encompasses recurring deposits, post office saving banks, and monthly income plans. Family and friends are considered the primary sources of investment knowledge.

Krishnamoorti (2009) determined that an individual's decision to invest is significantly shaped by their educational background, employment status, and habits about financial investments. Birajdar and Joshi (2016) underscored that, notwithstanding customers expressing less-than-enthusiastic views about the present postal services, India Post maintains a positive customer reputation among its clientele. The extensive customer base of India Post stands as a noteworthy asset, attributable to its consistent and sufficient provision of services to Indian citizens over an extended period. The public's enduring trust in the postal system remains steadfast, owing to infrequent instances of fraud and public and government support. Customers' perceptions of India Post remain unique, even without a formal corporate structure. Regarding the financial services provided by the Department of Post, small investors experience favorable returns. Given the lower risk involved, individuals across all income brackets and investor categories prefer bank and post office deposits (Kaushal and Kinjal, 2012). In contrast, higher-income groups with elevated educational attainment tend to favor investments in stocks, mutual funds, insurance, commodities, and real estate.

Teli's 2017 survey of 50 participants from the Rajsamand district revealed that most respondents were primarily familiar with office deposit programs through their social circles of friends and family. However, there appeared to be limited awareness of various other post office programs, such as post office saving accounts and regular deposits. While acknowledging the adequacy of the post offices' small savings programs for rural areas, Teli emphasized that more deposits should be encouraged. Public awareness should be raised through advertising and the engagement of agents. Teli also highlighted the advantages of a post office savings plan, which provides small investors with a secure and risk-free investment option, as previously noted by Mathumitha in her 2015 study. Mathumitha recommended integrating cutting-edge technology into the post office operations to enhance customer service by expediting transaction processes and increasing interest rates on post office loans.

Furthermore, Meht's 2015 research explored the challenges post office savings banks encounter when interacting with financial entities like banks and insurance companies. These challenges include heightened competition and ongoing technological advancements such as information and communication, particularly in mobile technology and high-speed internet connectivity. Ravindran's 2018 study highlighted that the post office is one of many means for the general population to read articles. The post office offers the public various financial services, including international money transfers, postal life insurance, mutual fund investment' and small savings plans. Additionally, Ravindran recommended using advertising to educate and inform female investors about post office savings plans to attract them as potential investors. Holosagi's 2018 research revealed that investors are primarily motivated to invest in the postal system to meet their domestic needs and secure their finances in old age. They highly value reliability, safety, ease of management, and local accessibility. Holosagi suggested that because awareness of postal investment schemes remains low among the general populace,



the government should raise awareness, especially among rural residents, so that they can benefit from these schemes.

Embu, in 2018, noted that more rural women are inclined to invest their money in the post office because of its proximity to the Holosagi 'sces. Additionally, he asserted that when officials encourage rural residents to invest in post offices, it contributes to the growth of the postal sector. Most investors are attracted to post office savings plans primarily because of the tax benefits they offer. Jain and Kothari's 2012 research focused on the advantages of post office savings plans, emphasizing the Department of Post's 150-year service to the public as a cornerstone of rural economic development and communication facilitation. They highlighted the influence of the minimum savings requirement, account creation prerequisites (Rs. 500), and tax advantages, which have significantly impacted saving practices in rural India over the past decade. Their study examined how investors perceive various financial instruments considering these factors. Kumar's 2006 research suggested that post office savings programs can be crucial to Kothari's country's growth by helping rural residents develop consistent and gradual savings habits. Investment Post has historically been a pivotal factor in economic development and the increase in national revenue. Kumar emphasized that sufficient savings are necessary to support capital formation and achieve production targets.

In 2015, Teli and Kore explored customer perceptions of post office savings schemes. They highlighted that many postal investments offer income tax exemptions and interest payments, making them competitive with other investment opportunities, such as public sector firms, commercial and cooperative banks, and non-banking financial institutions. Given the significant impact of these investment options on investors' saving behavior over the past decade, institutions offering such instruments must research clients' opinions and perceptions regarding these financial tools. Aggarwal's 2012 research focused on the Post Office Savings Bank in India, which strongly emphasizes security, safety, and risk-free components to distinguish it from its competitors. Aggarwal suggested that the bank intensify its marketing efforts to convey this positioning strategy to its target audience effectively.

Furthermore, the IT revolution presents challenges and opportunities for banks, as automation technology can enhance their operations. In their 2018 study, et al. asserted that individuals with limited literacy, driven by a lack of knowledge and related factors, tend to exhibit a heightened inclination toward depositing their funds in post offices. Conversely, those belonging to higher income brackets rarely express interest in channeling their resources into post office investments because of the modest interest rates offered. The associated tax benefits are the principal advantage of participating in a post office savings scheme. Authorities should take proactive measures to promote awareness of people's financial options in post offices to bolster the growth of the postal sector. Similarly, when juxtaposed with alternative investment strategies, Kumar (2018) positioned itself as an exceptional choice, particularly for rural working women. Its user-friendly accessibility, assurance of secure investments, and absence of premature

closure risks engender a strong sense of trust and positive attitudes towards post office savings plans among rural active women investors.

According to Mohamad and Shajahan's 2016 research, the post office has traditionally served as a vital source of financial services for millions of people residing in rural areas. It plays a pivotal role in these remote regions, bridging the gap between them and the rest of the country while also delivering banking services due to the absence of banks in rural locales. The study titled "Post Office Savings and Attitudes of Rural Investors in Kerala: A Study from Kasaragod District" by Karunakaran et al. (2020) emphasizes that the postal department has introduced various post office schemes to foster rural development. However, there is a need for them to realign their services to attract new customers. Naveen et al.'s 2021 study, "A Study on Customer Satisfaction in Post Office Savings Schemes with Special Reference in Coimbatore City," underscores the importance of the postal department taking proactive measures to promote savings schemes and enhance their public services. Richa's 2004 analysis shows that the Post Office remains a preferred choice for savers, which is evident in the 32.45% increase in collections during the first sector of the current fiscal year compared to the same period in 2003-2004. This surge in popularity is attributed to the higher interest rates offered by post office deposit programs compared with banks. Gross saving deposit receipts experienced a substantial increase between 1999-2000 and 2003-2004, ranging from Rs.34,650 crore to Rs.91,3000 crore. Jain and Kothari's 2012 study delved into the perceptions, preferences, concerns, and attitudes of investors regarding the various deposit plans offered by the post office. They found that demographic characteristics, monthly income, and educational background had no significant impact on individuals' perceptions of post office deposit schemes.

In her study titled "Investor's Attitude towards Post Office Saving Schemes in Cumbum Town," Gayathri (2014) discovered that respondents expressed satisfaction with the post office schemes. However, she recommended increasing awareness and interest rates while advocating the adoption of the latest technology to expedite transactions. Interestingly, the attitudes of investors toward post office deposit systems remained unaffected by the Individual Communication System ICS. Additionally, the study by Kumar and Kannaiah (2014) on "Investors' Attitude towards Saving at the Post Office" revealed that age, education, and income did not influence investors' sentiments regarding saving at the post office. Instead, post office plans were primarily chosen to meet the financial needs of spouses and children. The research also highlighted the impact of income instability on investors' investment decisions. In a study by Beriwal et al. (2022), expanding postal authority in India introduced complexity for investors in selecting specific savings plans. Research was conducted to gauge investor preferences and awareness of the Postal Savings Program, leading to recommendations to assist investors. It was noted that small postal saving banks offered a reliable return for surplus funds despite declining interest rates and volatile capital markets. The success of postal service programs hinged on attracting new and retaining investors, emphasizing the importance of satisfying investor needs.



Benazir (2022) highlighted the issue of ignorance regarding numerous post office programs and proposed organizing fairs and campaigns to raise awareness. Many individuals viewed low-interest rates as a disadvantage, mainly when saving for children's education and marriage. Raising interest rates and implementing technological innovations to expedite transactions and reduce processing delays were suggested. The limited accessibility of tax benefits was also underscored with a call for their expansion to additional programs. Poor staff responses were identified as a concern, necessitating the deployment of special representatives to address customer complaints. Age was found to influence perceptions, with young parents placing significance on post office programs, prompting a suggestion to attract older parents as well.

Anuradha and Hema's (2023) study findings indicated that financially literate women possess the information and the capability to make sound financial decisions, motivating them to support their families and manage their finances effectively. Although various organizations are conducting measures to increase financial literacy, there remains a need for awareness campaigns through seminars, commercials, and similar initiatives. Ganapathi (2010) highlighted the primary objectives of various small savings schemes that aim to assist small investors and individuals with high tax burdens. The study concluded that effective advertising of post office savings schemes was necessary to increase deposits and raise awareness among the general population.

RESEARCH GAP

There should be more research gaps in our understanding of the technological solutions required to enhance post office savings schemes. In addition, investigating the intricate relationship between interest rates, investor behavior, and the economic factors influencing interest rate adjustments holds promise for gaining valuable insights. Further research should also explore variations in how specific demographic groups perceive these schemes, identify the most effective methods for increasing awareness and financial literacy, assess the potential impact of expanding tax benefits to additional programs, delve into unique preferences and challenges faced by male and female investors, and evaluate the long-term performance and outcomes of participants in post office savings schemes.

FINDINGS

This thorough review explores the diverse terrain of investment options and choices, exploring various factors significantly influencing individual decisions. The review has unveiled the subsequent discoveries and assessments.:

- The study emphasizes the impact of age, generation, and gender, revealing intriguing patterns that shape investors' preferences. A discernible trend emerges as older investors and senior citizens manifest a distinct preference for postal schemes, drawn to their simplicity and suitability. Gender dynamics further contribute to the narrative, with females displaying a heightened inclination toward investing in these schemes.

- It reveals that salaried individuals are drawn to post office schemes due to their perceived safety, guaranteed returns backed by the government, and associated tax advantages, simplifying the intricacies of financial decision-making.
- Educational qualifications also surface as a noteworthy variable in the investment landscape, delineating how individuals with diverse academic backgrounds manifest disparate preferences.
- Remarkably, despite the absence of a professional culture, this study illuminates the enduring impact of customer perceptions on India Post, elucidating the motivational factors driving investment in post office schemes.
- The allure of post office schemes is multifaceted, with investors citing the rarity of fraud and malpractice, attractive returns, and a perception of safety compared to alternative financial assets.
- The motivations underpinning these investments coalesce around domestic purposes and securing retirement, with investors prioritizing ease of management, local accessibility, and a sense of financial security.
- Intriguingly, the review highlights the nuanced preferences of rural women, who exhibit a keen interest in post office investments owing to geographical proximity.
- At the same time, parents find solace in depositing savings in post office schemes due to their perceived risk-free nature and associated tax benefits.
- This exploration extends to rural working women, revealing a robust trust and positive attitude toward these schemes attributed to their straightforward investment process, easy accessibility, and the absence of concerns related to premature closure.
- Conversely, a dichotomy emerged among higher-income groups that veered toward modern investment options, eclipsing the traditional appeal of post office schemes.

This review encapsulates a panoramic understanding of the diverse factors that intertwine to shape investment decisions, providing valuable insights into the dynamic interplay of demographics, perceptions, and motivations within the investment landscape.

CONCLUSION

This study considers the factors influencing investments in post office schemes. The findings reveal that investors prefer to allocate their funds to options that are secure, straightforward to comprehend, devoid of risk, and offer tax benefits with easy accessibility. Female investors, in particular, exhibit high levels of trust in post office schemes. Moreover, investors expressed a high degree of satisfaction with these schemes. Overall, individuals opt for investment avenues that are easily understandable and prioritize the safety of their investments.



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RIGHTS OF PERSONS WITH DISABILITIES ACT 2016: A CASE STUDY OF SECONDARY SCHOOLS IN AIZAWL, MIZORAM, INDIA

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ABSTRACT

The Rights of Persons with Disabilities Act 2016 has been implemented in various states of India and this article analyzed how this Act is being implemented in selected secondary schools in Aizawl city, Mizoram. The descriptive and reflective data of observation field diary doubted the standard of the infrastructural facilities over the issue of feasibility as per the needs of differently-abled students. The majority of the school did not have the proper environment for students with disabilities and due to a lack of research, it was difficult to understand and improve the learning process of differently-abled students in the local context. It was also found that due to topological conditions of Mizoram, implementation of the RPWD Act, 2016 is an arduous task but almost all secondary schools did not have an attitudinal barrier and the authority's showed sensitivity towards differently-abled students.

KEYWORDS: *Differently-abled students, RPWD Act, Implementation, Challenges, Aizawl, School*

THEORETICAL BACKGROUND

The constitution of India provides the right to education to all citizens, including students with disabilities. Article 29(2) of the Constitution provides that no citizen shall be denied admission into any educational institution maintained by the State or receiving aid from state funds. The Indian Education Commission (1964-66) was the first statutory body to suggest that education of disabled children has to be organized not merely on humanitarian grounds but also on the grounds of reality. The commission emphasized that the education of disabled children should be an inseparable part of the general education system. The National Curriculum Framework, 2005 attempts to address the barriers that curriculum, pedagogy and teaching-learning resources can impose on inclusive education (Ministry of Education, 1966).

The government of India set up segregated workshops, and vocational schools separated from mainstream schools. Most of these segregated schools were expensive and were in cities resulting in further marginalization of the person with special needs. The Kothari commission was constituted to improve the education system. The Plan of Action (PoA) that followed included the concerns of people with disabilities, but unfortunately, the government never implemented it. It reads, "We now turn to the education of disabled children. Their education must be organized not merely on humanitarian grounds but on the grounds of utility. Proper education generally enables disabled children to overcome their handicaps largely and make them into useful citizens. Social justice also demands an overall view of the problem; however, we feel that experimentation with integrated programs is urgently required, and every attempt

should be made to bring in as many children in integrated programs."

In 1974, the ministry of welfare initiated the Integrated Education for the Disabled Children (IEDC) scheme. This program provided children with special needs "financial support for books, school uniforms, transportation, special equipment's and aids". But due to major problems such as lack of training and experience of teachers as well as lack of availability of equipment and educational materials, the scheme could be implemented in only 10 out of 29 states. The NPE 1986 stated in contradiction to article 45 that only children with mild disabilities should be included in the mainstream classroom. In contrast, children with "moderate to severe" disabilities are placed in segregated special schools.

The 1992 PoA created to implement the 1986 NPE clarified that "a child with special needs who can be educated in general school should not be placed in special schools". The Year 1992 was also the year of the rehabilitation council of India (RCI) Act. It provides standards for rehabilitation professionals with the inclusion of Special educators as well. In 1995, the Person with Disability Act was passed, which covered all aspects of disability-related areas ranging from building to education as well as jobs, but it defined the disabilities quite narrowly. It only listed seven categories. The act addressed the issue of teacher training for special educators and required that all schools have facilities that accommodate students with various needs. But due to lack of funds, the PWD Act was virtually impossible to implement.



The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 was enacted to give effect to the proclamation on the full participation and equality of the people with disabilities in the Asian and Pacific Region. Under this Act, persons with disabilities are defined as those with less than forty percent (40%) disability and identified seven categories of disabilities, namely, blindness, low-vision, hearing impairment, locomotor disability, mental retardation, and mental illness and leprosy cured. Over time, the conceptual understanding of the rights of persons with disabilities has become clearer, and there has been a worldwide change in approach to handling the issues concerning persons with disabilities. The United Nations adopted its convention on the rights of persons with disabilities laying down the principles to be followed by the State parties for the empowerment of persons with disabilities. India also signed the said convention and then notified the same on the 1st day of October 2007 (Annual Report 2018-19, Office of Commissioner for Persons with Disabilities, Govt. of Mizoram).

The United Nations Convention on Rights of Persons with Disabilities (UNCRPD), for the first time, recognizes that disability is the right of the disabled and is a function of the social environment. The Convention changes the way disability was conceptualized. Traditionally, understandings of disability have been oriented towards the medical (diagnostic) model. The focus has been on individuals' physical or intellectual limitations and their therapeutic and other medical needs. By eliminating the traditional approach to disability, the UNCRPD focuses on awareness aspects that the issues raised are not just personal but societal. It also invites us to think about people 'with disabilities' rather than 'disabled' people.

The convention came into effect on the 3rd day of May 2008. Being a signatory to the convention, India has an international obligation to comply with the provisions of the said convention, which requires entirely new legislation. An Expert Committee under the Chairmanship of Dr. Sudha Kaul, Vice-Chairperson, India Institute of Cerebral Palsy, Kolkata, was constituted in 2010 and submitted its report in 2011. After the draft, Bill was extensively debated upon at various levels involving State Governments and Union Territories, and various stakeholders, the Rights of Persons with Disabilities Bill, 2014, was introduced in the Rajya Sabha. The said Bill was passed by both the Houses of Parliament in December 2016. The Act, known as the Rights of Persons with Disabilities Act, 2016, came into effect on 19th April 2017. This new Act (RPWD Act, 2016) replaced the Persons with Disabilities (PWD) Act, 1995 (Disability Act, 2016). The RPWD Act 2016 has defined disability based on an evolving and dynamic concept: According to its definition, 'person with disability' means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others; "person with benchmark disability" means a person with not less than forty percent of a specified disability where specified disability has not been defined in measurable terms and includes

a person with disability where specified disability has been described in measurable terms, as certified by the certifying authority. 'Person with disability having high support needs' means a person with benchmark disability, who needs high support certified under section 58 (2) of the RPWD Act, 2016.

REVIEW OF LITERATURE

Das and Kattumuri (2011) conducted a qualitative study on 'Children with disabilities in private inclusive schools in Mumbai: Experiences and challenges based on discussions with children with disabilities in private inclusive schools in Mumbai, India. They had employed the case study method as it allowed an intensive study (Shepard 2003) within its real-life context of children with disabilities. It provided an in-depth and systematic way of looking at events and helped in gaining a sharpened understanding of causality, and provides a sound base for extensive exploration in future research (Bent 2006). A total of ten in-depth interviews were conducted from seven inclusive schools in Mumbai. It discussed the development of self-concept, elucidates the benefits and challenges of children with disabilities in inclusive education. According to the results, the study also suggested a recommendation to have resource teachers in the school to be proportionate with the needs of the children with disabilities to provide adequate support. It also found that sometimes, children with disabilities displayed some conditions which may require a constant collaborative effort of the regular and resource teacher in the classroom. For instance, a child with an acute hyperactivity disorder may need a resource teacher in the school. Thus, the study also suggested that the recruitment policy of resource teachers in inclusive schools must ensure that the ratio of resource teachers was commensurate with the extent of disabilities of children enrolled.

Ferrante (2012) conducted a study on 'A Case Study of Inclusion, Respect and Dignity: Whole School Approach Using the Social Model of Disability'. A case study approach is used to evaluate this school's inclusion process and its ramifications on stakeholders. Both qualitative and quantitative methods were used to triangulate questionnaires, focus groups, semi-structured interviews, and observations. A thematic analysis supported by descriptive statistics was used within an interpretative approach of hermeneutic phenomenology. This research contributes theory to the offering a different model for an inclusive school, the use of innovative structures in school management and the changes brought about by valuing the education of disabled students. The findings showed a generally positive attitude towards inclusive education. They suggested that inclusive education heightened the awareness of each interrelated aspect of the school as a community, challenges stereotypes and promotes contextually relevant research.

Kumar and Kumar (2018) published a paper on 'RPWD Act, 2016 and School Education: Concerns and Challenges'. The paper included the specific provisions with their implications regarding teachers, special teachers and school administration. It also covered the concerns and challenges emerging from the act. The



authors argued that the act was based on the assumption that disability was an integral part of human diversity; therefore, the act was a powerful legal instrument to include PWD in the community's socio-cultural, economic and political life by removing physical and attitudinal barriers. The number of disabilities increased from seven to twenty-one in this activity, and a number of new provisions and institutional arrangements, therefore, presents many challenges before school education. According to this paper, the Act showed our resolve to serve the most un-served, unseen and marginalized section of the society.

Ahuja (2019) conducted a study on 'Implementation of Rights of Persons with Disabilities Act, 2016-Inclusive Education: Implementation Perspective based on the primary and secondary data published in government documents. The researcher applied both observation and analytical techniques. The study reviewed the literature online and offline relating to the welfare of persons with disabilities. This paper discussed the implementation of the Rights of Persons with Disabilities Act, 2016. It portrayed the infrastructural requirements and assistive devices for various categories of disabilities. The study recommended that though there were no specific infrastructural requirements for these types of disabilities, modification in class-arrangement, furniture, and Teacher Learning Material was necessary. The findings also suggested that remedial class must be given in the Resource Room, a well-decorated, colorful and attractive room, where the CWSN feel free to do their work/task in their manner.

Chauhan et al. (2021) conducted a study on "Caregiver's perception of barriers to implementation of the Rights of Persons with Disabilities (RPWD) Act, 2016 in India" that was planned to study caregiver's perception of barriers to implementation of the Rights of Persons with Disabilities (RPWD) Act, 2016 in India. An online cross-sectional survey was carried out among parents of children with disabilities. A pre-validated structured and semi-structured questionnaire was used. Results of structured items were summarized as mean (SD), frequencies and percentages. For open-ended questions, responses were analyzed by manual content analysis; results were presented in the form of a framework. From 316 responses, 44.8% of respondents availed of disability certificates; however, utilization was largely limited to travel and educational settings. 82.2% of respondents were not aware of any of the national health schemes. Only 6.2% of children could engage in play activities at the playground. According to the findings, accessibility, health issues, and social stigma were the main barriers to recreation for children with disabilities. While 25.8% of children did not attend school, 58.1% of children attending normal school were facing difficulties due to lack of appropriate school infrastructure, transportation issues, and untrained teachers. Responses to open-ended questions were predominantly related to needs of homegrown research, better infrastructure and trained teachers in schools, life security of child and development of a national registry for better health information. The study also highlighted the importance of implementing concrete strategies at every level of policy

decisions to create more awareness regarding the RPWD Act in India.

AREA OF THE STUDY

Mizoram is one of the states of Northeast India, with Aizawl as its capital city. The name is derived from Mi (people), Zo (lofty place, such as a hill) and Ram (land), and thus Mizoram implies "*Land of the hill people*". Like several other northeastern states of India, Mizoram was previously part of Assam until 1972, when it was carved out as a Union Territory. It became the 23rd state of India, a step above Union Territory, on 20 February 1987. Mizoram's population stood at 1,091,014, according to a 2011 Census. It is the 2nd least populous state in the country. Mizoram covers an area of approximately 21,087 square kilometers. About 91% of the state is forested. About 95% of current Mizoram population is of diverse tribal origins who settled in the state, mostly from southeast Asia, over waves of migration starting about 16th century but mainly in 18th century. This is the highest concentration of tribal people among all states of India, and they are currently protected under Indian constitution as a Scheduled Tribe. The tribes converted from Animist religions to Christianity over the first half of 20th century. Mizoram is one of three states of India with a Christian majority (87%).

Aizawl district alone has a population of 4, 04,054, comprising of 22.58% in the rural and 77.42% in the urban areas. Aizawl city has reported the highest percentage of urban population in Mizoram i.e., 3, 12,837. Therefore, the study focused on the secondary schools in Aizawl City, Mizoram.

OPERATIONAL DEFINITIONS OF THE KEY TERMS

The key terms used in this study are given below:

Status: In the proposed study, it refers to the present condition of implementing the RPWD Act 2016 in secondary schools of Mizoram.

Implementation: In the present study, it refers to the enactment and execution of the RPWD Act 2016 in the secondary schools of Mizoram.

Secondary Schools: It refers to the schools having 9th and 10th standards operationalized under the Mizoram Board of Secondary Education (MBSE) and Central Board of Secondary Education (CBSE).

RPWD Act, 2016: This study refers to the provisions given in chapter 3 of the RPWD Act.

RATIONALE OF THE STUDY

The Rights of Persons with Disabilities Act, 2016 (RPWD Act, 2016) defines "inclusive education as a system of education wherein students with and without disability learn together, and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities".



Every child has a right to free education compulsorily up to the elementary stage of schooling as per the Right of Children to free and Compulsory Education Act 2009 (RTE Act, 2009). The Right to Education is built on the principles that all children should be in school. The study aims to find out the implementation status of the RPWD Act 2016 among secondary schools of Aizawl.

RPWD Act, 2016 protects all people with disabilities against discrimination and promotes equal opportunity and accessibility. All establishments-government, private and Non-Government Organizations-are covered under the Act, and there are specific mandates for them to comply with. Appropriate penalties and punishments to have been laid down in the Act for individuals/organizations for non-compliance and violation of the law. The first step for implementing or seeking implementation of the Act would be to become aware of its provisions. Hence, a Manual to explain The RPWD Act was envisaged by National Centre for Promotion of Employment for Disabled People (NCPEDP), a national level advocacy organization promoting the rights of persons with disabilities. The development of the Manual is supported by the American India Foundation (AIF), a not-for-profit organization with a national presence that is working closely with local communities and partnering with Non-Government Organizations to develop and test innovative solutions with governments that are scalable and have a sustainable impact.

There are 1181 differently-abled secondary students enrolled in Mizoram. Awareness has given in certain forms, but less effort has been taken for the differently-abled students. It is essential that students, teachers and parents must be aware of the RPWD Act 2016. The Act might sound but still vague to many of us in India. No study has been conducted among secondary students in Mizoram based on RPWD Act 2016. It gives a challenging opportunity to determine how the RPWD Act 2016 has been implementing in secondary schools of Mizoram and the students, teachers, and parents' perception about the Act. The study also aims to determine whether there are any differences in gender, locality, educational qualification, income, and training. This study will give a picture of the present situation regarding implementing the RPWD Act 2016 in Mizoram and will point out what steps should be taken to improve in implementing the RPWD Act 2016.

Considering the RPWD Act 2016 and its importance, the researcher found no study related to this field in Mizoram. Therefore, it is needed to have a comprehensive research study that discovers different angles and aspects of implementing the RPWD Act, 2016 in Aizawl, the capital city of Mizoram. Simultaneously, the present study also tries to find out the problems faced by the schools and students in an inclusive setting school. Knowing the problem is not the end of the study, so this study endeavors to suggest an effective measure for implementing the RPWD Act, 2016 in Aizawl.

OBJECTIVES OF THE STUDY

1. To examine the implementation status of the RPWD Act, 2016 in secondary schools of Aizawl.
2. To analyze the problems faced by the secondary schools in an inclusive setting.
3. To suggest measures for further policy implications for proper implementation of the RPWD Act, 2016 in secondary schools.

RESEARCH QUESTIONS

1. What are the challenges faced by the secondary schools to implement RPWD Act 2016 in an inclusive setting?
2. How can RPWD Act 2016 be effectively implemented in secondary schools of Aizawl?

METHODOLOGY

The study was based on both primary and secondary data. Primary data was obtained through two self-constructed instruments, first observational checklist with field notes and second semi-structured interview schedule to assess the implementation status of the RPWD Act 2016 in secondary schools of Aizawl city. An observational checklist under RPWD Act 2016 was also employed to collect data on the infrastructural facilities of the schools. Six (6) secondary schools were randomly selected from the study area, they are- Govt. Mizo High School, Govt. Republic High School, Govt. Chaltlang High School, Kendriya Vidyalaya, Govt. Synod High School and St. Joseph High School. A total number of 222 teachers and 4 principals were selected as respondents from these schools. Secondary data was obtained from books, articles, government publications, annual reports and other relevant e-resources.

RESULTS AND DISCUSSION

To meet objective one, i.e., the implementation status of the RPWD Act, 2016 in secondary schools of Aizawl, the researcher used an observational checklist and field notes. In addition, principals also provided their viewpoints on the infrastructural and instructional facilities for children with disabilities through face-to-face interviews. Through the series of interviews with secondary school principals, the researcher found no study has been conducted related to the RPWD Act 2016 so far in their schools. However, principals agreed that all the teachers in their respective schools were aware of the RPWD Act, 2016. Generally, all schools reported that they had students with visual and hearing impairment as well as physically handicap based on previous years data. In the current academic year, they mentioned that no student with a disability enrolled.

The majority of the school did not have the proper accessible environment for students with disabilities. On the other hand, Kendriya Vidyalaya school has all the necessary facilities per the RPWD Act, 2016. The principals of secondary schools stated that teachers and students are always ready to help students with disabilities achieve their learning difficulties. Besides, they mentioned that class teachers provided seats in the first row and



also provided proper spectacles as per their needs through Samagra Shiksha. Further, they help them learn with encouragement, motivation, patience and understanding of their learning styles and pace. Students with mild vision loss were given books with bold and large font sizes along with required spectacles. It was found that schools provided financial assistance to increase students' attendance with disabilities and reduce the drop-out rate. Students with disabilities (in most cases only mild vision loss) came to school like normal students with provided spectacles. Almost all the principal reported that they have no severe disability except low vision students and students with locomotor disability. Thus, they offered them bold and enlarged printed learning materials.

The findings obtained from the observation checklist to know the status of implementation of RPWD Act 2016 in secondary schools of Aizawl given in Appendix- 1 below. As per the finding, out of six secondary schools of Aizawl, 50% of them were developed with adequate and suitable infrastructural facilities along with a ramp to support the differently-abled students in their respective schools. But descriptive and reflective data of observation field diary doubted the standard of these constructions over the issue of feasibility as per the needs of differently-abled students. The researcher also observed that some of the constructions made for differently-abled students were for the namesake only and practically of no use to provide any assistance to differently-abled students. On the other hand, in the previous years, secondary schools did not get the significant enrolments of students with disability therefore they were not realized the actual need and requirement of their existence. Eighty-three percent of schools have had stairs with handrails that were fortunately suitable for all in general but reflective data says that all the facilities for differently-abled students were not constructed keeping in mind the norms and criteria for height, texture and forms of handrail that make it appropriate of differently-abled students.

As per the findings of the observation checklist, there was an absolute absence of signage design in secondary school premises, indicating that modification and constructions in light of the RPWD Act 2016 were not done to make a differently-abled friendly environment. Additional only 50% of participant secondary schools have barrier-free washrooms with the partial fulfilment of norms for washrooms of differently-abled. The emergency call button was found nil in every secondary school observed. Both observation checklist and field diary support that there was no problem regarding the accessibility of water, sanitation and hygiene in secondary schools for students with disabilities.

There were 66.67% of secondary schools have accessible playgrounds for differently-abled students, but they were not covered with grass and paved pathways. Reflection from the field diary reveals that no secondary schools have adapted physical education teachers, adapted sports and games for differently-abled students. If any school have a physical education teacher,

he was unaware of adapted physical education and incompetence to modify the game as per the suitability of differently-abled students. No secondary schools have promoted differently-abled students for Para Olympics and Special Olympics in the past. One more reflection found that teachers were not aware of these Olympics and how differently-abled students could participate. One secondary school reported that they have an accommodation facility for differently-abled students as the school has both facilities, i.e. boarding and day school. No participant secondary schools have had transport facilities for differently-abled students and not for their attendants.

Only one school reported that they provide braille-printed books or large printed books, enlarging magnifiers, word cards, ball holders, audiobooks, e-text readers, low or high-tech communication aids and appropriate assistive devices to students with benchmark disabilities. There were 33.33% of secondary schools responded positively to modification in the curriculum for differently-abled students. It includes alteration and organization of seating arrangement, flexible timetable, extra time for the exam, facility of the scribe, and exemption from second and third language subject. There were 83% of secondary schools reported appropriate light near the blackboard and in the whole classroom; however, only 50% of secondary schools have an accessible board for differently-abled students. There were 66.67% of secondary schools that had disabled-friendly science laboratories, but fire alarm systems were not installed in the laboratory. Besides, 100% of science laboratories have had water access.

Reflections from the field diary ensure that almost all secondary schools did not have an attitudinal barrier and the authority's showed sensitivity towards differently-abled students. There were 66.67% of secondary schools that provided seat reservations for differently-abled students in taking admission as per the RPWD Act, 2016. Cent percent school appointed teacher in charge for redressal of grievances to tackle the problems of differently-abled students.

The Directorate of School Education, Government of Mizoram, informs the secondary schools about the RPWD Act 2016 and the provisions of differently-abled students. The school principals play leadership role in the enrolment of disabled students in their schools. They reserved seats for students with a disability as per the RTE Act, 2009 and RPWD Act, 2016. The secondary school teachers have usually undergone for identification of disabled students in the school itself. The schools adopt the teaching-learning process as per the needs of children with disabilities for inclusive settings.

To placate objective two, i.e. to analyze the problems faced by the secondary schools in an inclusive setting, the content analysis of the semi-structured interview questionnaire on the RPWD Act, 2016 has been done. Besides, through semi-structured interviews, the researcher also collected detailed information through observation field notes. In secondary schools of Aizawl, it found that attitudinal barriers were not the challenges for taking



admissions of differently-abled students without discrimination. However, infrastructural facilities were available but not up to the norm that makes secondary schools appropriate for differently-abled students. Only six schools were taken as samples for the reality check, including basic requirements like ramp, handrails, signage design, and transport facility and accommodation facility under the RPWD Act, 2016.

Principals reported that due to a lack of research, it was difficult to understand and improve the learning process of differently-abled students in the local context. It was found that due to topological conditions of Mizoram, implementation of the RPWD Act, 2016 is an arduous task. Therefore, Principals mentioned that providing books for low vision and arranging wheelchairs is not the complete justice for differently-abled students. It was found that thinking beyond the braille, sign language and assistive devices were also a challenge for secondary school teachers.

The appointment of special educators and training the existing ones were also a challenge for secondary schools. Differently-abled secondary school students lack high-tech assistive devices that hinder their learning outcomes. It was also found a challenge to retain students with disabilities with poor financial assistance. So, stipends and scholarships are needed to lower the drop-out rates of students with disabilities. In an inclusive set-up, all the teachers need to understand the educational needs of students with disabilities and teach core subjects. It was also found that students with disabilities did not get homework and additional activities due to the teachers' attitude of underestimating their capabilities. Teachers usually did not give extra time and energy to assist during tests, homework and other activities for evaluations.

To get the findings of objective three concerning suggestive measures for policy implication for the proper implementation of the RPWD Act, 2016 in secondary schools, the researcher used the secondary school principal's point of view in this regard. They reported that reasonable accommodation is needed to ensure that students with disabilities can participate and gain education equally. Further, they explained that reasonable accommodation includes infrastructure, activities, learning materials, teaching methods, assistive technologies, curriculum and assessments.

School principals also mentioned that for better implementation of the RPWD Act, 2016, provisions must be made to sufficed students with disabilities. Under assistive technology, students with disabilities can have magnifiers, screen readers, writing aids, braille display, note-taking devices, tape recorders, adapted chairs, and desks under assistive technology. Secondary school teachers need to be trained in Sign Language, Braille, training in assistive technology and augmentative communication. Some principals brought the urgency of the appointment of para-professionals for providing counselling and occupational therapy to students with disabilities. In addition, they emphasized the

requirement of individualized educational planning with flexible assessment procedures and curriculum.

As suggested in the RPWD, Act 2016 schools should adopt the universal design for infrastructural facilities such as the accessible playground, inclusive science laboratories, library (audiobook, braille book, textbook, e-book), barrier-free lavatories, ramp, handrails, and signage. But the topological condition of Mizoram demands a considerable amount of funds to build universal infrastructure. The location of secondary schools in Aizawl was challenging. Therefore, the government should allocate substantially more funds to construct school buildings/premises with universal design under samagra shiksha.

For better implementation of the RPWD Act, 2016, pre-service teacher training programmes such as B.Ed. and M.Ed. need to include special educational needs of differently-abled students in their curriculum. In addition, intensive professional development training is required for in-service secondary school teachers to teach in an inclusive setting. Moreover, universal design for learning comprises universal objective for learning, universal teaching-learning methods, and universal assessment techniques having utmost importance for secondary schools to teach inclusively.

CONCLUSION

RPWD Act 2016, a revolutionary step in the history of the Indian Constitution, implemented for the upliftment of differently-abled persons. The data indicate that the teachers in Aizawl city have a moderate level of concerns to implement inclusive education related to RPWD Act, 2016 in their schools. However, RPWD Act, 2016 is rights-based legislation, yet the statute's success will tremendously depend on the proactive steps taken by the respective state governments on its effective implementation. To review such a new act concerning educational provisions for children with disabilities has great significance for further implementation of the RPWD Act and also to formulate strategies for further policy implications.

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Appendix 1: Observation Checklist for Secondary Schools to Implement RPWD Act, 2016

S.N.	QUESTIONS	School 1		School 2		School 3		School 4		School 5		School 6		Total Frequency of Yes
		Yes	No											
1.	Availability of ramp as per the need		√		√	√		√		√		√		3
2.	The school develop adequate and suitable infrastructures and facilities to support disabled students		√	√		√			√		√	√		3
3.	Stairs with handrail		√	√		√		√		√		√		5
4.	Signage Design (informational signs, directional signs, identification signs, warning signs)		√		√		√		√		√		√	0
5.	Barrier-free washrooms	√		√			√		√		√	√		3
6.	Accessible water, sanitation and hygiene	√		√		√		√		√		√		6
7.	Accessible playground		√	√		√			√	√		√		4
8.	Transport facility		√		√		√		√		√		√	0
9.	Accommodation facility for students with disability		√		√	√			√		√		√	1
10.	The school provided braille-printed books/ large printed books/ enlarging hardware and software, handheld magnifiers, word cards, ball holders, audiobooks, e-text reader, low or high-tech communication aids, other learning materials and appropriate assistive devices to students with benchmark disabilities		√		√		√		√		√	√		1
11.	Modification in Curriculum		√		√		√		√	√		√		2
12.	Appropriate light near blackboard and in the whole classroom	√		√		√			√	√		√		5
13.	Accessible board		√		√	√			√	√		√		3
14.	Science laboratory disabled-friendly		√	√		√			√	√		√		4
15.	School provides a seat reservation for disabled students in taking admission as per the Act	√		√		√			√		√	√		4
16.	The school appoint redressal of grievances - Teacher in charge to tackle the problems of disabled students	√		√		√		√		√		√		6

Source: Field Survey



UTILIZATION OF CLASSROOM OBSERVATION TOOL AND TEACHERS' TEACHING PERFORMANCE IN THE NEW NORMAL EDUCATION

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ABSTRACT

This study aimed to find out the teaching performance of teachers through the utilization of Classroom Observation Tool (COT) in Pikong Elementary School. The needed data of this study were gathered using a survey questionnaire on challenges encountered by teachers in the new normal education, and teachers' rating in teaching through the use of Classroom Observation Tool (COT) as basis in formulating technical assistance plan. Generally, challenges encountered by teachers in teaching obtained a weighted mean of 4.06, described as agree. Moreover, teachers' teaching performance got the average score of 5.33, described as satisfactory. This means that the teachers in Pikong Elementary School demonstrate a range of associated pedagogical aspects of the indicator that usually are aligned with the learners' developmental needs. However, teachers have to be provided with different technical assistance to increase their teaching performance from satisfactory to outstanding level.

KEYWORDS: *Classroom Observation Tool; Teaching Performance, Challenges*

I. CONTEXT AND RATIONALE

The whole world was unprepared for lockdown, however, most businesses managed to get business continuity plans in place very quickly. They were able to allow their partners or stakeholders the flexibility to work remotely. However, the same was not valid for a vast majority of educational institutions. For instance, the Pikong Elementary School, was way behind in adopting technology, having focused more on classroom teaching and never having seriously considered online education as a credible model, the school was slightly more unprepared than other sectors. However, due to the incredible resilience and determination, teachers in the said school were quick to adapt to the new normal.

School administrator and teachers have had to upskill themselves almost overnight to adjust to the new modes of teaching, ensuring that learning remains accessible to learners even in the current circumstances.

Furthermore, the major goals of classroom observation are preparing beginning teachers with enough skills and knowledge to improve their teaching continuously through analysis and reflection, seeing the various interpersonal interactions between the teacher and those interactions occurring among learners in the classroom and improving teachers' classroom instruction based on feedback from individual classroom or school (Good, 1988).

II. INNOVATION, INTERVENTION, AND STRATEGY

The school administrator conducted a survey to teachers respondents, and observed teachers in their teaching through the use of Classroom Observation Tool (COT), then he

consolidated the ratings of teachers in the following indicators: apply knowledge of content within and across curriculum teaching areas; plan and deliver teaching strategies that are responsive to the special educational needs of learners in difficult circumstances, including: geographic isolation; chronic illness; displacement due to armed conflict, urban resettlement or disasters; child abuse and child labor practices; and select, develop, organize and use appropriate teaching and learning resources, including ICT, to address learning goals.

After consolidating the reports, the researcher made a Technical Assistance (TA) plan based on the indicators that have a low or satisfactory results to help teachers in enhancing their teaching skills and to meet the outmost need of learners in the community.

III. ACTION RESEARCH QUESTION

This study aimed to find out the performance of teachers through the utilization of Classroom Observation Tool (COT) in Pikong Elementary School.

Specifically, the researcher sought answers to the following sub-problems:

1. What is the profile of teachers in Pikong Elementary School?
2. What are the challenges encountered by teachers in Pikong Elementary School in the new normal education?
3. What is the performance of teachers based on the utilization of Classroom Observation Tool (COT) in the new normal education?
4. Based on the findings of the study, what Technical Assistance (TA) can be developed?

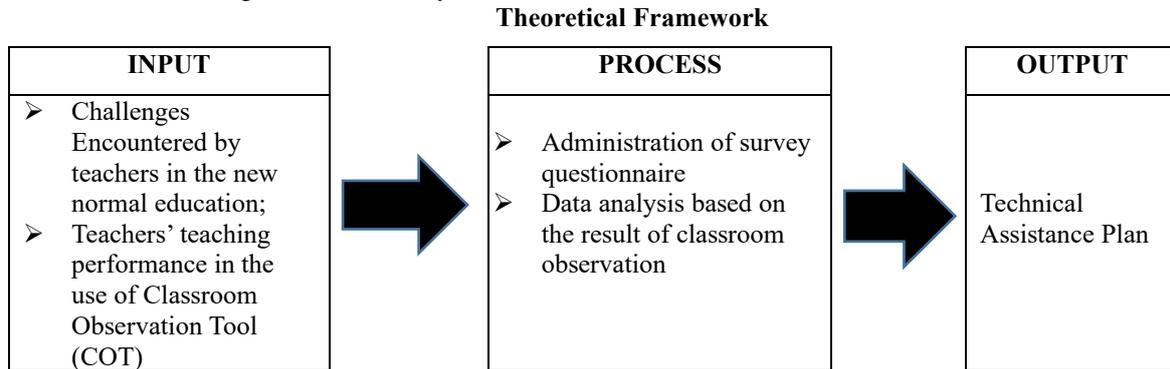


IV. ACTION RESEARCH METHOD

a. Research Design

This study utilized the descriptive method of research. The researcher described the challenges encountered by teachers

and teaching performance of teachers in the new normal education in Pikong Elementary School, school year 2020-2021.



b. Research Participants

The main respondents of the study were four (4) teachers of Pikong Elementary School, East Malungon District, Sarangani Division, for school year 2020-2021.

c. Data Gathering Procedure

In gathering the data, the researcher sought permission from the Schools Division Superintendent of Sarangani, and to the division research coordinator to conduct the study in Pikong Elementary School, East Malungon District.

When approval was granted, the researcher sent an official communication to the public schools district supervisor to arrange suitable dates for data collection. Then, the researchers explained the objectives of the study and distributed the questionnaire to the teachers who were given enough time to answer the entire items.

After the given time, papers were collected and the researchers expressed thanks to the teachers. Then data were tabulated, analyzed, and interpreted.

d. Research Instrument

The needed data of this study were gathered using a survey questionnaire on challenges encountered by teachers in the new normal education and teachers' rating in teaching through the use of Classroom Observation Tool (COT) as basis in formulating technical assistance plan

e. Statistical Treatment

Five Point Scale

Scale	Description
5 - 4.5-5.0	Strongly Agree
4 - 3.5-4.49	Agree
3 - 2.5-3.49	Neutral
2 - 1.5-2.49	Disagree
1 - 1-1.49	Strongly Disagree

The gathered data were analyzed and interpreted by using frequency distribution, and weighted mean to describe the challenges encountered by teachers in the new normal

education. Meanwhile, to measure the teaching performance of teachers the average score of every indicator was utilized.

f. Ethical Issues

Following Institutional Review Board approval, permission to conduct the study was obtained from the heads of offices. The teachers were also assured that the responses and information within the questionnaires would remain anonymous and confidential. Completion of the questionnaires were taken as willingness to participate in the study.

V. RESULTS AND DISCUSSIONS

Teachers' Demographic Profile

The demographic profile of teachers in this study is consists of teachers' sex, age, educational qualification, length of service, and teaching position.

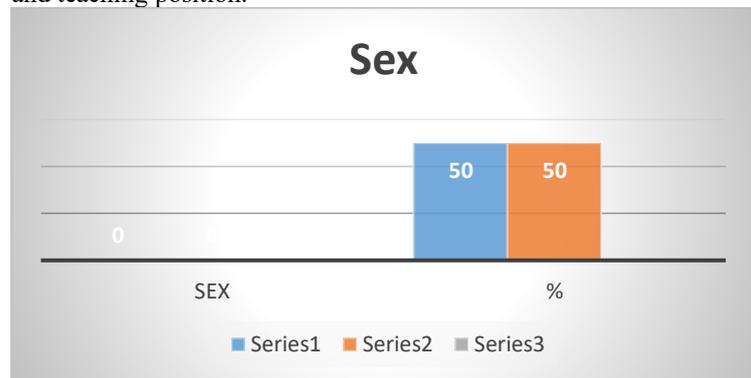


Figure 1. Teachers' Sex Profile

Figure 1 shows that among the participant of the study in Pikong Elementary School, 50% of teachers were female, and the remaining 50% were male.

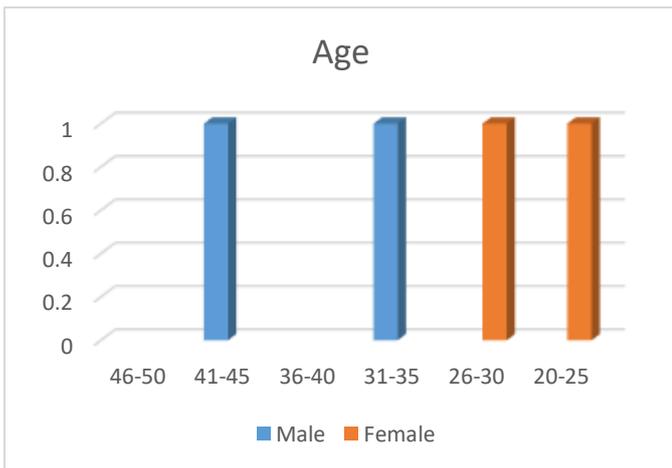


Figure 2. Teachers' Age

Figure 2 shows that among the participants of the study, one (1) respondent belongs to ages 41-45, another one (1) for ages 31-35, one (1), 26-30, and the remaining one (1) belongs to ages 20-25.

The result implies that most of the teachers in Pikong Elementary School are young educators and able to do their duties and functions effectively.

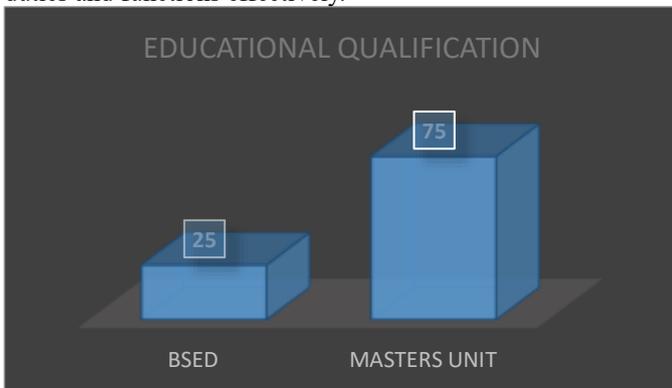


Figure 3. Educational Qualification

Figure 3 shows that among the teachers of Pikong Elementary School, 75 % of them obtained a units in Masters Degree and only 25 % has a BSED degree.

The result implies that most of the teachers in the said school are motivated to engage in any professional development opportunities to widen their knowledge and skills in their chosen profession.

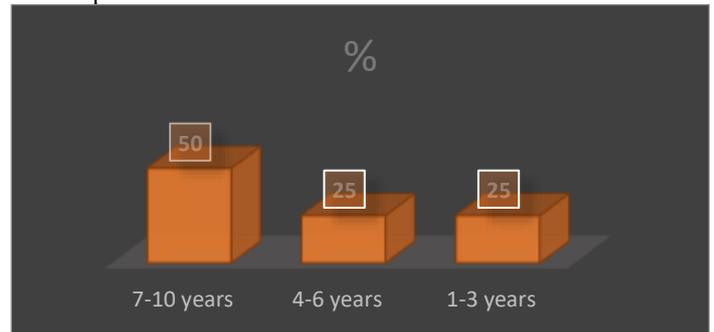


Figure 4. Length of Service

Figure 4 shows that among the participants of the study, 50 % of them serve in the Department of Education from 7-10 years, 25 %, 4-6 years, and the remaining 25 % works in the Department of Education for 1-3 years.

The result implies that most of teachers in Pikong Elementary School are newly hired teachers and still learning the system of the Department of Education.

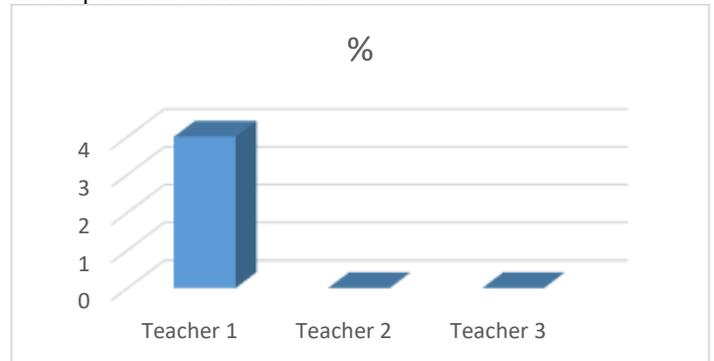


Figure 5. Teaching Position

Figure 5 shows that 100 % of the participants have a teacher 1 teaching position, and it implies that they have to gain more experiences in the field of teaching and engage themselves in the different professional development opportunities to get promoted in the future.

<i>I have a difficulty in...</i>	wm	Description
1. Content and performance standards in my main subject field(s)	2.53	Neutral
2. Student assessment practices	3.28	Neutral
3. Classroom management	2.50	Neutral
4. Knowledge and understanding of my main subject field(s)	3.49	Neutral
5. Knowledge and understanding of instructional practices (knowledge mediation) in my main subject field(s)	3.49	Neutral
6. ICT skills for teaching	4.50	Strongly Agree
7. Teaching students with special learning needs	4.54	Strongly Agree
8. Student discipline and behavior problems	4.53	Strongly Agree
9. Teaching in a multicultural setting	4.49	Agree
10. Student counselling	4.49	Agree
11. Different preparation amidst COVID-19	5.00	Strongly Agree
12. Conduct of classes in new modality	4.52	Strongly Agree
13. Internet issue	5.00	Strongly Agree
14. Shift in evaluating students' learning	4.50	Strongly Agree
TOTAL	4.06	Agree



Table 2
Challenges Encountered by Teachers in Teaching
N=4

Five Point Scale		
Scale		Description
5	- 4.5-5.0	Strongly Agree
4	- 3.5-4.49	Agree
3	- 2.5-3.49	Neutral
2	- 1.5-2.49	Disagree
1	- 1-1.49	Strongly Disagree

Table 2 shows the challenges encountered by teachers in teaching, items number 11 and 13, obtained the weighted mean of **5.00**, item number 7, **4.54**, item number 8, **4.53**, item number 12, **4.52**, and items number 6 and 14, got the weighted mean of **4.50**, described as **strongly agree**. Meanwhile, items number 9 and 10, obtained a weighted mean of **4.49**, described as **agree**, moreover, items 4 and 5, obtained a weighted mean of **3.49**, item number 2, **3.28**, item number 1, **2.53**, and item number 3, **2.50**, described as **neutral**.

Overall, challenges encountered by teachers in teaching obtained a weighted mean of **4.06**, described as **agree**.

The result implies that teachers agreed that they have a common challenges encountered in teaching and have to be provided with technical assistance to identified indicators that have a higher weighted mean based on the results of the study.

Table 3
Teachers' Teaching Performance based on Classroom Observation Tool (COT)

Indicators	Teachers' Teaching Performance					
	Teacher A	Teacher B	Teacher C	Teacher D	Average Score	Description
1. Apply knowledge of content within and across curriculum teaching areas	6	6	6	5	5.75	Very Satisfactory
2. Plan and deliver teaching strategies that are responsive to the special educational needs of learners in difficult circumstances, including: geographic isolation; chronic illness; displacement due to armed conflict, urban resettlement or disasters; child abuse and child labor practices	5	5	5	5	5.00	Satisfactory
3. Select, develop, organize and use appropriate teaching and learning resources, including ICT, to address learning goals	6	5	5	5	5.25	Satisfactory
Total	5.67	5.33	5.33	5	5.33	Satisfactory

N=4

Legend:

- 6.21-7.00 - Outstanding (Integrating)
- 5.41-6.20 - Very Satisfactory (Developing)
- 4.61-5.40 -Satisfactory (Applying)
- 3.81-4.60 -Unsatisfactory (Consolidating)
- 3.00-3.80 -Poor (Organizing)

Table 3 shows that apply knowledge of content within and across curriculum teaching areas, obtained the average score of **5.75**, described as **very satisfactory**, meanwhile, select, develop, organize and use appropriate teaching and learning resources, including ICT, to address learning goals, got the average score of **5.25**, plan and deliver teaching strategies that are responsive to the special educational needs of learners in difficult circumstances, including: geographic isolation; chronic illness; displacement due to armed conflict, urban resettlement or disasters; child abuse and child labor practices, **5.00**, described as **satisfactory**.

Overall, teachers' teaching performance got the average score of **5.33**, described as **satisfactory**.

The result implies that the teachers demonstrate a range of associated pedagogical aspects of the indicator that usually are aligned with the learners' developmental needs. Also, teachers have to be provided with different technical assistance to increase their teaching performance from satisfactory to outstanding level.



Technical Assistance Plan

Challenges Difficulty in...	NO. OF TEACHERS	NAME OF TEACHERS	TA PLAN
1. ICT skills for teaching	4	Teachers A,B,C,D	Seek help from division, and district ICT coordinators
2. Teaching students with special learning needs	4	Teachers A,B,C,D	Check teachers' anecdotal records, and ask help from teachers in other schools who handle special education curriculum
3. Student discipline and behavior problems	4	Teachers A,B,C,D	Orient teachers in the child protection policies
4. Different preparation amidst COVID-19	4	Teachers A,B,C,D	Set priorities on the given period, and make support mechanisms to lessen the difficulties of teachers
5. Conduct of classes in new modality	4	Teachers A,B,C,D	Encourage teachers to make an adjustment plans to cater the needs of learners amidst COVID-19
6. Internet issue	4	Teachers A,B,C,D	Provide teachers an Internet loads based on the guidelines in the utilization of MOOE
7. Shift in evaluating students' learning	4	Teachers A,B,C,D	Help teachers to explore other means of evaluating learners' output
COMPETENCIES/INDICATORS	NO. OF TEACHERS	NAME OF TEACHERS	TA PLAN
1. Uses a range of teaching strategies that enhance learner achievement in literacy and numeracy skills	3	TEACHERS B,C,D	<ul style="list-style-type: none"> ➤ Conduct of SLAC sessions ➤ Individual coaching ➤ Referring teachers to trainings and seminars related to indicators ➤ Invite an expert teacher/s as resource speaker/s during the conduct of LAC sessions ➤ Seek advice from the head offices for concrete solutions of the problems
2. Applies a range of teaching strategies to develop critical and creative thinking, as well as higher order thinking skills	3		

VI. CONCLUSION & RECOMMENDATIONS

Generally, challenges encountered by teachers in teaching obtained a weighted mean of 4.06, described as agree. This implies that teachers agreed that they have a common challenges encountered in teaching and have to be provided with technical assistance to identified indicators that have a higher weighted mean based on the results of the study.

Moreover, teachers' teaching performance got the average score of 5.33, described as satisfactory. This means that the teachers demonstrate a range of associated pedagogical aspects of the indicator that usually are aligned with the learners' developmental needs. However, teachers have to be provided with different technical assistance to increase their teaching performance from satisfactory to outstanding level.

Therefore, the teacher must be guided in facilitating learning through the use of well-connected pedagogical aspects of the indicator that consistently are aligned with student development and support students to be successful learners; and expose the teachers in using well-connected pedagogical aspects of the indicator to create an environment that addresses individual and group learning goals.

VII. ACKNOWLEDGMENT

The researcher expresses his heartfelt thanks and sincere gratitude to the following persons whose help brought this work into realization: his family for the moral support and unconditional love; Adriano Daligdig, Public Schools District Supervisor, for allowing him to conduct the study; and teachers as respondents of this study for the cooperation and effort in providing the needed data. Above all, the Almighty Father for giving all the blessings, knowledge and wisdom bestowed upon them and their families.

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SATISFACTION ANALYSIS OF FACULTY, ADMINISTRATIVE STAFF AND STUDENTS ON THE ADMINISTRATIVE SERVICES OF THE NUEVA ECIJA UNIVERSITY OF SCIENCE AND TECHNOLOGY

Elena G. Vicencio, Ph.D

ABSTRACT

This study is conducted on the purpose of identifying the level of observation and satisfaction of the student, faculty and administrative staff on the administration services offered by the university. It was accomplished through the use of descriptive-correlation of research by means of handing out questionnaires among 438 respondents who were selected through the use of stratified random sampling. The data gathered were statistically tested through the use of statistical tools such as weighted mean, anova, post HOC test, Pearson and Spearman Rho's correlation. After the thorough conduction of research, the researcher found out that; the administration services offered by the university were highly observed and have satisfaction rate to the respondents; it is also revealed that there were significant differences on the respondents' observation and satisfaction rate, between and among the groups and campuses when compared. Therefore, the researcher concluded that the observation and satisfaction of the respondents were high towards the university's administration services.

KEYWORDS: Organization, Academic Administration, Financial Management, Records Management, Supply Management, Student Administration.

INTRODUCTION

Rooted from the Latin word "educare" - education means to molds or to train individual. It simply means that education brings man to enlighten and acquisition of deeper understanding on the situation at hand. It is very essential in the reconstruction of human experiences that people will become more productive and can bring distinct change in their chosen field, in themselves, in the community, in the country and in the global arena and that makes education as the key to success as stated by Mandela (2016).

School plays a vital part in bringing education for change and social reforms in lives of students. The school progresses human mind by educating it and teaching what should one mind and heart ought to learn as its main function. In order for a school to meet its roles, systems were established. System unify independent parts of the school. It is important that each of the elements of the schools (such as equipment, facilities, teachers and student body) were aligned in a single direction to achieve its objectives and goals.

The administration of the three campuses of the Nueva Ecija University of Science and Technology that offers Education Programs: Sumacab Campus, San Isidro Campus and Gabaldon Campus were the chosen campuses of the researchers. However, this study mainly focuses on College of Education students, College of Education teaching personnel and administrative staffs of the University.

The researcher aims to assess the implementation of administration services by identifying and analysing the challenges faced by the institution while carrying out various processes. In addition, students' insights enable the staffs and the university to determine where the services are least observed and satisfied to be more effective and provide satisfying services within its areas of specializations.

This study, in particular, sought the answer to the following questions:

1. How may the profile of the respondents be described in terms of:

- 1.1 Age
- 1.2 Sex
- 1.3 Civil Status
- 1.4 Course
- 1.5 Year Level
- 1.6 Current Position
- 1.7 Highest Educational Attainment
- 1.8 Campus

2. How may the observation and satisfaction of the respondents be described based on the following areas:

- 2.1 Organization
- 2.2 Academic Administration
- 2.3 Financial Management
- 2.4 Supply Management
- 2.5 Record
- 2.6 Students Administration

3. Is there a significant difference between the observation and satisfaction of the respondents in the following:

- 3.1 Gabaldon Campus to San Isidro Campus
- 3.2 Gabaldon Campus to Sumacab Campus
- 3.3 San Isidro Campus to Sumacab Campus

METHODOLOGY

The study presents and describes the research method, the researchers utilized descriptive type of research method in collecting data through questionnaire. As stated by Manuel and Mendel 2005, descriptive research describes: "what is" it involves the description recording analysis and interpretation of data collected. It attempted to describe a A Satisfaction Analysis of Nueva Ecija University of Science and Technology on Administrative Services: Basis for Area of Administration

The study used stratified random sampling as a type of sampling. It is a method of sampling that involves the division of a population into smaller groups known as strata. In stratified random sampling, the strata are formed based on member's shared attributes or characteristics of the respondents. Samples per stratum are then randomly selected; however, the sizes of the random samples to be selected from the subgroups must be given considerations. The respondents of the study were the faculty, staff and student within the three campuses; Gabaldon, Sumacab



and San Isidro. 42 students, 22 faculty and non-teaching were from Gabaldon. In San Isidro, we had 107 students, 34 faculty and non-teaching while in Sumacab Campus, the respondents were 178 students, 55 faculty and non-teaching.

It describes the sources of data, the statistical treatment used for analysis and interpretation, and the characteristics of the respondents. The researcher solicited permission from the Dean of the College of Education, Campus Director of Gabaldon and San Isidro Campuses of NEUST to sought permission to talk with them regarding the study and the actual conduct of the study. The

questionnaire aims to obtain qualitative information which will be analyzed statistically. The questionnaire assessed the observation and satisfaction of the faculty, staff and students within the campuses of Gabaldon, Sumacab and San Isidro. The researchers made use the formula in getting the weighted mean to tally the respondent’s level of observation and satisfaction on the services within the three campuses. The researcher made use of formula in getting the significant difference between the faculty, staff and students’ observation and satisfaction on the three campuses (Gabaldon, Sumacab, San Isidro).

RESULTS AND DISCUSSION

TABLE 1:
Frequency Distribution of Student’s Profile

Campus	Gabaldon	San Isidro	Sumacab	
	62	107	178	
Sex	Male	Female		
	67	260		
Civil Status	Single	Married		
	323	4		
Course	BEED	BSE	BSE	
	111	199	17	
Year Level	1 st YEAR	2 nd YEAR	3 rd YEAR	4 th YEAR
	18	28	136	145

TABLE 2:
Frequency Distribution of the Teaching and Non-Teaching

Campus	Gabaldon	San Isidro	Sumacab
	22	34	35
Sex	Male	Female	
	50	61	
Civil Status	Single	Married	Widow
	32	75	4
Current Position	Regular	LONA	Non-Teaching
	63	14	54
Highest Educational Attainment	College Graduate	Master’s Graduate	Doctoral Degree
	52	36	23

TABLE 3:
Numerical and Verbal Interpretation on Observation

Scale	Interval	Verbal Interpretation
4	3.26-4.00	Highly Observed
3	2.51-3.25	Observed
2	1.76-2.50	Fairly Observed
1	1.00-1.75	Not Observed

TABLE 4:
Numerical and Verbal Interpretation on Satisfaction

Scale	Interval	Verbal Interpretation
4	3.26-4.00	Highly Satisfied
3	2.51-3.25	Satisfied
2	1.76-2.50	Fairly Satisfied
1	1.00-1.75	Not Satisfied

Table 5

The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses based on the organization of the University.

Questions	Teaching						Non-Teaching						T and NT	
	Sumacab		Gabaldon		San Isidro		Sumacab		Gabaldon		San Isidro		Average Weighted Mean	Verbal interpretation
	rank	Verbal interpretation	rank	Verbal interpretation	rank	Verbal interpretation	rank	Verbal interpretation	rank	Verbal interpretation	rank	Verbal interpretation		
System-input and Processes														
S.1 The institution has an organizational structure approved by the Board of Regents/Trustees (BOR/BOT).	3.5	HO	3.6	HO	3.5	HO	3.6	HO	3.5	HO	3.4	HO	3.59	HO
S.2 Every office/unit in the organizational structure has functions approved by the BOR/BOT.	3.5	HO	3.5	HO	3.6	HO	3.5	HO	3.5	HO	3.5	HO	3.57	HO
Implementation														
I.1. The institution is subdivided into administrative units in accordance with the organizational structure.	3.6	HO	3.5	HO	3.6	HO	3.4	HO	3.5	HO	3.5	HO	3.57	HO
I.2. The functions, duties and responsibilities of the administrative personnel/staff in each unit/office are identified and carried out.	3.4	HO	3.5	HO	3.5	HO	3.3	HO	3.5	HO	3.4	HO	3.46	HO
I.3. The Board of Regents/Trustees is supportive with the growth and development of the institution.	3.5	HO	3.5	HO	3.5	HO	3.5	HO	3.5	HO	3.4	HO	3.53	HO
I.4. The Academic and Administrative Councils exercise their powers and perform their functions.	3.4	HO	3.5	HO	3.6	HO	3.4	HO	3.5	HO	3.6	HO	3.55	HO
I.5. The flow of communication among the within units/departments is observed.	3.4	HO	3.2	HO	3.5	HO	3.2	HO	3.4	HO	3.4	HO	3.40	HO
Outcomes														
O.1. The institution has a well-designed and functional organizational structure.	3.4	HO	3.4	HO	3.4	HO	3.4	HO	3.4	HO	3.3	HO	3.47	HO
Average Weighted Mean	3.5	HO	3.5	HO	3.5	HO	3.4	HO	3.5	HO	3.5	HO	3.52	HO

The table 5 shows that the teacher and the non-teaching personnel highly observed the Area A, Organization of the Institution with an average weighted mean of 3.52. The highest among the observation in this parameter is the S.1 that states the presence of the organizational structure of the institution approved by the Board of Regents with a total weighted mean of 3.59. Secondly, the flow of communication among and within units and departments is also highly observed but obtained the lowest average weighted mean of 3.40 on the parameter.

San Isidro campus teaching personnel obtained the highest weighted mean of 3.57 among the group of respondents based on their observation on the organization of the institution while Sumacab Campus non-teaching personnel got the lowest weighted mean of 3.44.

As stated by Adams (2017), Conflict may arise without the proper organization, disagreement due to differences in points of view

and ideology or unhealthy competition that may yield to consequences may also occur. With regards to this institution will function harmoniously if organized efficiently. Ideally an organization should be structured so as to function effectively allowing its objectives and strategic intents to be achieved (Bartol et.al., 2008).

Furthermore, Goris et al. and Ooi et al. (2007) find organizational communication to have an important positive association with affective commitment, whilst (Brunetto and Farr-Wharton’s 2008) findings “suggest a strong relationship between communication and job satisfaction and affective job commitment. Research has shown that “when employee needs are met through satisfying communication, employees are more likely to build effective work relationships” (Gray and Laidlow, quoted in Tsai and Chuang 2009).



The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses based on the academic administration of the University.

Table 6

Questions	Sumacab		Gabaldon		San Isidro		Sumacab		Non-Teaching Gabaldon		San Isidro		T and NT	
	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation
System-Input and Processes														
S.1. The Dean/Academic Unit Head possesses the required educational qualification and experience and other prescribed requirements needed to administer the College/Academic Unit as follows:														
S.1.1 Ph.D. in educational/related field.	3.53	HO	3.68	HO	3.75	HO	3.88	HO	3.43	HO	3.58	HO	3.6	HO
S.1.2. Certificate of Registrations/Professional License (LET), etc.	3.53	HO	3.77	HO	3.63	HO	3.35	HO	3.58	HO	3.42	HO	3.5	HO
S.1.3. Other requirements as prescribed by the Board	3.66	HO	3.75	HO	3.59	HO	3.39	HO	3.50	HO	3.37	HO	3.5	HO
S.2. The Department Chair/s or their equivalent, has appropriate/relevant educational qualification and experience														
S.2.1. At least a doctoral degree holder in educational and/or field	3.58	HO	3.27	HO	3.74	HO	3.33	D	3.88	HO	3.98	HO	3.4	HO
S.2.2. A holder of valid certificates of registration and professional teacher's license.	3.42	HO	3.77	HO	3.98	HO	3.09	D	3.67	HO	3.28	HO	3.4	HO
Implementation														
I.1. The Dean is assisted by Department Chair/s (or equivalent) with appropriate/relevant educational qualification and experience.	3.85	HO	3.7	HO	3.53	HO	3.13	D	3.98	HO	3.32	HO	3.6	HO
I.2. The Dean implements a supervisory program.	3.38	HO	3.88	HO	3.47	HO	3.38	HO	3.58	HO	3.28	HO	3.4	HO
I.3. The Dean participated in the recruitment and promotion of the faculty and support staff.	3.53	HO	3.98	HO	3.90	HO	3.65	HO	3.43	HO	3.52	HO	3.4	HO
I.4. The Dean, the faculty and the administration work together for the improvement of the Undergraduate Teacher Education, particularly in:														
I.4.1. setting standard and targets.	3.51	HO	3.58	HO	3.38	HO	3.28	HO	3.38	HO	3.18	D	3.4	HO
I.4.2. planning of programs and other related activities.	3.53	HO	3.55	HO	3.48	HO	3.26	HO	3.58	HO	3.26	HO	3.4	HO
I.4.3. implementing, monitoring and evaluation of plans, programs and other related activities.	3.58	HO	3.52	HO	3.47	HO	3.55	HO	3.50	HO	3.42	HO	3.4	HO
I.4.4. establishing linkages, partnerships and networking activities.	3.42	HO	3.27	HO	3.28	HO	3.22	D	3.38	HO	3.28	HO	3.2	HO
I.4.5. providing opportunities for professional growth and development of the faculty and staff.	3.38	HO	3.43	HO	3.58	HO	3.17	D	3.30	HO	3.38	HO	3.4	HO
I.4.6. preparing policies and guidelines on the internal administration and operation of the College/Academic Unit; and	3.49	HO	3.43	HO	3.35	HO	3.32	D	3.48	HO	3.38	HO	3.5	HO
I.4.7. preparing guidelines on the proper use and maintenance of facilities, equipment, supplies and materials, etc.	3.33	HO	3.27	HO	3.41	HO	3.22	D	3.35	HO	3.37	HO	3.4	HO
I.5. Definite criteria and procedures in the selection and promotion of the most qualified faculty and staff are observed.	3.37	HO	3.58	HO	3.38	HO	3.43	HO	3.33	HO	3.28	HO	3.5	HO
I.6. The Dean, faculty, staff and students pursue collaborative activities in generating resources and income and in implementing cost-effective measures.	3.42	HO	3.45	HO	3.47	HO	3.30	HO	3.58	HO	3.47	HO	3.4	HO
I.7. The Dean implements policies and procedures on internal administration and operations of the College/Academic Unit.	3.43	HO	3.45	HO	3.56	HO	3.32	D	3.42	HO	3.43	HO	3.4	HO
Outcomes														
O.1. The institution has a well-designed and functional organizational structure.	3.47	HO	3.58	HO	3.50	HO	3.26	HO	3.42	HO	3.42	HO	3.4	HO
Total	3.48	HO	3.52	HO	3.50	HO	3.27	HO	3.48	HO	3.37	HO	3.4	HO

The table 6 shows that the teacher and the non-teaching personnel highly observed the Area B; Academic Administration with an average weighted mean of 3.44. The highest among the observation is under the System – Input Processes which is the S.1.2. Certificate of Registration/Professional License (LET) with an average weighted mean of 3.56. Establishing linkages, partnerships and networking activities which are under the category, implementation is also highly observed but obtained the lowest average weighted mean of 3.29 on the parameter.

Gabaldon campus teaching personnel got the highest weighted mean of 3.52 among the group of respondents based on their observation on the Academic Administration on the other hand

Sumacab campus teaching personnel obtained the lowest weighted mean of 3.27.

Employees whether in the field of teaching or in the administration play a vital role in success of the institution by doing their tasks and accomplishing their works in giving their services (Cordeiro 2010. Incompetency to their respective jobs will not bring developmental impact to achieve the institutions' mission and vision. However, the ability to hire and maintain effective employee remains a serious problem for higher education institution (Wong and Heng 2009).

The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses on the Financial Management of the University.



Table 7

Overviews	Teaching														Non-Teaching				Total MT	
	Sumacab		Gabaldon		San Isidro		Sumacab		Gabaldon		San Isidro		Average Weighted Scores		Total	SD				
	rank	verbal observation	rank	verbal observation	rank	verbal observation	rank	verbal observation	rank	verbal observation	rank	verbal observation	rank	verbal observation						
System Input and Processes																				
I.1. The institution has an approved Financial Management Plan (FMP)	3.47	HO	3.40	HO	3.30	HO	3.38	HO	3.30	HO	3.18	O	3.38	HO						
I.2. The approved budget is in accordance with FMP	3.38	HO	3.20	O	3.40	O	3.30	HO	3.35	HO	3.05	O	3.27	HO						
I.3. The institution has specific budgetary allocations for the following services: operations, maintenance and other operating expenses (MOOE), capital outlay, and special projects																				
I.3.1. operational services	3.38	HO	3.20	O	3.35	HO	3.35	O	3.42	HO	3.02	HO	3.38	HO						
I.3.2. maintenance and other operating expenses (MOOE)	3.38	HO	3.30	HO	3.41	HO	3.38	O	3.35	HO	3.33	O	3.33	HO						
I.3.3. capital outlay and	3.38	HO	3.30	O	3.38	HO	3.32	O	3.42	HO	3.33	O	3.38	HO						
I.3.4. special projects	3.38	HO	3.30	HO	3.44	HO	3.37	O	3.41	HO	3.36	HO	3.38	HO						
Implementation																				
I.1. The institution maintains a Financial Management Office managed by qualified and competent staff	3.55	HO	3.45	HO	3.55	HO	3.38	HO	3.33	HO	3.52	HO	3.47	HO						
I.2. The financial management personnel are responsible for the efficient management of financial resources/funds of the institution	3.05	HO	3.38	HO	3.30	HO	3.13	O	3.42	HO	3.18	HO	3.30	HO						
I.3. The administrative officials, faculty, staff and student representatives participate in the budget preparation and in the procurement program of the institution	3.07	O	3.16	HO	3.35	HO	3.04	O	3.42	HO	3.37	HO	3.27	HO						
I.4. The budget of the institution is fair and objectively allocated	3.30	HO	3.32	HO	3.59	HO	3.13		3.42	HO	3.52	HO	3.37	HO						
I.5. The institution allocates fund for the following services and activities:																				
I.5.1. cultural development	3.50	HO	3.27	HO	3.47	HO	3.38	HO	3.50	HO	3.42	HO	3.44	HO						
I.5.2. athletic and sports development	3.38	HO	3.38	HO	3.47	HO	3.42	HO	3.50	HO	3.42	HO	3.37	HO						
I.5.3. welfare and health development	3.60	HO	3.36	HO	3.44	HO	3.52	HO	3.50	HO	3.42	HO	3.47	HO						
I.5.4. library	3.08	HO	3.33	HO	3.36	HO	3.45	HO	3.03	HO	3.32	HO	3.40	HO						
I.5.5. student body organization	3.55	HO	3.36	HO	3.32	HO	3.38	HO	3.50	HO	3.25	HO	3.40	HO						
I.5.6. guidance and counseling	3.48	HO	3.36	HO	3.35	HO	3.33	O	3.43	HO	3.32	HO	3.35	HO						
I.5.7. improvement of laboratories/class	3.00	HO	3.23	O	3.25	HO	3.23	O	3.50	HO	3.32	HO	3.32	HO						
I.5.8. repair and maintenance of facilities/equipment	3.53	HO	3.38	O	3.25	O	3.38	HO	3.42	HO	3.21	O	3.37	HO						

The table 7 shows that the teacher and the non-teaching personnel highly observed the Area C: Financial Management with an average weighted mean of 3.35. The highest among the observation are the I.1. The institution maintains a Financial Management Office managed by qualified and competent staff. Secondly I.5.2., Athletic and sports development with an average weighted mean of 3.47. Maintenance and other operating expenses (MOOE) is also highly observed but obtained the lowest average weighted mean of 3.23 on the parameter.

Gabaldon campus non-teaching personnel obtained the highest weighted mean of 3.46 among the group of respondents based on their observation on the Financial Management while Sumacab

Campus non-teaching personnel got the lowest weighted mean of 3.21.

According to Padilla et al (2012) in their study on financial sustainability for non-profit organizations, effective financial management practices is essential in enhancing transparency, efficiency, accuracy, accountability which enable an organization to achieve its objectives. It is also likely that the elected members of the school governing body may be equally ill equipped for the task, Clark A (2008).

The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses based on the supply management of the University



Table 8

Questions	Teaching						Non-Teaching						T and NT	
	Sumarah		Gabaldon		San Isidro		Sumarah		Gabaldon		San Isidro		Average Weighted Mean	
	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation
System-Input and Processes														
S.1. The institution has an approved procurement management system in accordance with the Revised RA of RA Kalls (Government Procurement Reform Act).	3.30	HO	3.30	HO	3.30	HO	3.17	0	3.07	HO	3.33	HO	3.40	HO
S.1. The institution has a system for the proper disposal of non-serviceable and condemned equipment, supplies and materials.	3.35	HO	3.32	HO	3.30	HO	3.35	HO	3.07	HO	3.42	HO	3.40	HO
S.3. The office has a store room for keeping and securing all equipment, supplies and materials purchased.	3.31	HO	3.36	HO	3.44	HO	3.35	HO	3.35	HO	3.47	HO	3.40	HO
Implementation														
1.1. The institution maintains a supply management office (SMO) managed by qualified staff with specific functions and responsibilities.	3.42	HO	3.50	HO	3.26	HO	3.28	HO	3.58	HO	3.18	HO	3.38	HO
1.2. The Situated Awards Committee (SAC) is responsible for the procurement and deliveries of needed equipment, supplies and materials in accordance with the approved Annual Procurement Plan (APP) and Project Management Plan (PMP).	3.45	HO	3.45	HO	3.32	HO	3.35	HO	3.58	HO	3.26	HO	3.30	HO
1.3. The SAC performs its tasks and responsibilities in accordance with recent procurement policies and official issuances.	3.51	HO	3.32	HO	3.41	HO	3.26	HO	3.42	HO	3.26	HO	3.39	HO
1.4. The SMO office creates, updates and submits the annual inventory of serviceable and non-serviceable facilities and equipment.	3.38	HO	3.41	HO	3.41	HO	3.22	0	3.38	HO	3.37	HO	3.34	HO
1.5. All approved requests for procurement are published in the Philippine Government System (PHILGEIS).	3.42	HO	3.32	HO	3.29	HO	3.17	0	3.30	HO	3.32	HO	3.34	HO
Outcomes														
O.1. The institution has an efficient and effective Supply Management.	3.42	HO	3.28	HO	3.41	HO	3.28	HO	3.28	HO	3.27	HO	3.32	HO
O.1. All procurement transactions are transparent.	3.27	HO	3.27	HO	3.26	HO	3.13	HO	3.01	HO	3.32	HO	3.26	HO
Total	3.39	HO	3.38	HO	3.27	HO	3.28	HO	3.28	HO	3.28	HO	3.34	HO

The table 8 shows that the teacher and the non-teaching personnel highly observed the Area D: Supply Management with an average weighted mean of 3.38. The highest among the observation is the 0.1. The institution has an efficient and effective Supply Management System with an average weighted mean of 3.45. All procurement transactions are transparent is also highly observed but obtained the lowest average weighted mean of 3.28 on the parameter.

Gabaldon campus non-teaching personnel obtained the highest weighted mean of 3.58 among the group of respondents based on their observation on the Supply Management on the other hand, San Isidro personnel campus got the lowest weighted mean of 3.27.

According to Bisk (2017), Supply management is how a business use their supply chain capabilities to drive competitive advantage, from raw material procurement to finished product delivery, is increasingly critical to business of all sizes and shapes. The importance of running an efficient and effective supply chain has created a need for professionals who have acquired the necessary educational foundation to help an organization manage and optimize cost-effective operations and deliver superior customer value

The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses based on the Records Management of the University

Table 9

Questions	Teaching						Non-Teaching						T and NT	
	Sumarah		Gabaldon		San Isidro		Sumarah		Gabaldon		San Isidro		Average Weighted Mean	
	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation	rank	Verbal Interpretation
System-Input and Processes														
S.1. The institution has a system of records.	3.45	HO	3.50	HO	3.39	HO	3.32	HO	3.67	HO	3.55	HO	3.54	HO
S.2. The institution has policies and	3.53	HO	3.50	HO	3.62	HO	3.48	HO	3.58	HO	3.58	HO	3.55	HO
S.3. Policies and procedures on prompt	3.40	HO	3.59	HO	3.47	HO	3.48	HO	3.75	HO	3.47	HO	3.53	HO
Implementation														
1.1. The institution maintains a Records	3.35	HO	3.55	HO	3.44	HO	3.35	HO	3.67	HO	3.37	HO	3.46	HO
Outcomes														
1.3. The Human Resource Management Office	3.49	HO	3.50	HO	3.66	HO	3.48	HO	3.67	HO	3.69	HO	3.58	HO
1.4. The following updated records are made:														
1.4.1. minutes of the Board of	3.38	HO	3.50	HO	3.59	HO	3.26	HO	3.67	HO	3.47	HO	3.46	HO
1.4.2. minutes of the Faculty meeting	3.38	HO	3.39	HO	3.62	HO	3.26	HO	3.67	HO	3.58	HO	3.48	HO
1.4.3. Faculty/non-teaching personnel	3.47	HO	3.55	HO	3.50	HO	3.57	HO	3.58	HO	3.47	HO	3.52	HO
1.4.4. Faculty/non-teaching personnel	3.53	HO	3.50	HO	3.47	HO	3.57	HO	3.50	HO	3.55	HO	3.52	HO
1.4.5. other records such as:														
1.4.5.1. student directory	3.43	HO	3.45	HO	3.38	HO	3.35	HO	3.58	HO	3.37	HO	3.43	HO
1.4.5.2. alumni directory	3.40	HO	3.43	HO	3.35	HO	3.30	HO	3.58	HO	3.37	HO	3.41	HO
1.4.5.3. permanent records list	3.40	HO	3.45	HO	3.43	HO	3.28	HO	3.50	HO	3.43	HO	3.42	HO



I.4.5.4. reports of the	3.42	HO	3.45	HO	3.41	HO	3.22	HO	3.50	HO	3.37	HO	3.42	HO
I.4.5.5. annual reports;	3.44	HO	3.50	HO	3.47	HO	3.17	HO	3.58	HO	3.37	HO	3.42	HO
I.4.5.6. Accomplishment/progress	3.51	HO	3.50	HO	3.56	HO	3.39	HO	3.58	HO	3.53	HO	3.51	HO
I.4.5.7. Scholarship records	3.44	HO	3.41	HO	3.44	HO	3.35	HO	3.58	HO	3.42	HO	3.44	HO
I.4.5.8. statistical data	3.87	HO	3.41	HO	3.50	HO	3.22	HO	3.67	HO	3.47	HO	3.52	HO
I.4.5.9. financial records of	3.35	HO	3.36	HO	3.36	HO	3.26	HO	3.50	HO	3.55	HO	3.43	HO
I.4.5.10. inventory of property;	3.49	HO	3.36	HO	3.44	HO	3.57	HO	3.50	HO	3.53	HO	3.48	HO
I.4.5.11. proceedings of	3.27	HO	3.32	HO	3.32	HO	3.17	HO	3.42	HO	3.42	HO	3.32	HO
I.4.5.12. other: (please specify)														
Outcomes														
O.1. The institution has a commendable	3.25	HO	3.45	HO	3.44	HO	3.04	HO	3.50	HO	3.32	HO	3.33	HO
Total	3.43	HO	3.47	HO	3.49	HO	3.33	HO	3.59	HO	3.46	HO	3.46	HO

The table 9 shows that the teacher and the non-teaching personnel highly observed the Area E: Records Management with an average weighted mean of 3.46. The highest among the observation is the I.3. The Human Resource Office (HRMO) maintains accurate, up-to-date and systematically filled records of faculty and non-teaching personnel with an average weighted mean of 3.58. Proceedings of administrative investigation (if any) is also highly observed but obtained the lowest average weighted mean of 3.32 on the parameter.

Gabaldon campus non-teaching personnel got the highest weighted mean of 3.59 among the group of respondents based on their observation on the Records Management while Sumacab Campus non-teaching personnel obtained the lowest weighted mean of 3.33.

As studied by Amanchukwu et al, 2015 poor records management results in difficulties in administering, development and supervision of educational systems. In fact, poor school records management and the lack of staff development with regards to the entire information cycle are responsible for a number of management and policy implementation problems in school. Ibarra, 2010 asserts that without records, there can be no accountability. He further maintains that quality performance, task accomplishment, and measurable outcomes are increasingly important responsibilities, all of which depend on the accessibility of usable records.

The table below represents the observation of the Teaching and Non-Teaching personnel of three campuses based on the student administration of the University.

Questions	Student						Teaching						Non-Teaching						Total	Average Weighted Mean
	Sumacab	Gabaldon		San Pedro		Sumacab	Gabaldon		San Pedro		Sumacab	Gabaldon		San Pedro						
Systemic Input and Processes																				
S.1. The institution has an approved and critical Student Handbook/Manual containing policies and guidelines on the following aspects of students' life																				
S.1.1. admission and retention policies	3.10	O	3.3	HO	3.0	O	3.4	HO	3.5	HO	3.6	HO	3.48	HO	3.50	HO	3.66	HO	3.43	HO
S.1.2. registration requirements;	3.12	O	3.4	HO	3.0	O	3.5	HO	3.6	HO	3.6	HO	3.48	HO	3.67	HO	3.56	HO	3.47	HO
S.1.3. school fees;	3.01	O	3.2	HO	3.0	O	3.5	HO	3.5	HO	3.3	HO	3.48	HO	3.58	HO	3.61	HO	3.42	HO
S.1.4. academic load;	3.00	O	3.3	HO	3.0	O	3.4	HO	3.7	HO	3.3	HO	3.35	HO	3.50	HO	3.63	HO	3.39	HO
S.1.5. transfers;	3.88	O	3.1	O	3.7	O	3.6	HO	3.5	HO	3.3	HO	3.40	HO	3.43	HO	3.58	HO	3.60	HO
S.1.6. residence, course work, scholastic and graduation requirements;	3.03	O	3.1	HO	2.9	O	3.5	HO	3.5	HO	3.3	HO	3.48	HO	3.42	HO	3.58	HO	3.36	HO
S.1.7. examination and grading system;	3.12	O	3.4	HO	3.0	O	3.4	HO	3.6	HO	3.5	HO	3.33	HO	3.67	HO	3.53	HO	3.45	HO
S.1.8. scholarship/grants/sponsorship;	3.01	O	3.4	HO	3.1	O	3.4	HO	3.5	HO	3.5	HO	3.28	HO	3.67	HO	3.58	HO	3.44	HO
S.1.9. cheating and adding/dropping of course/s subject/s;	3.00	O	3.2	HO	2.9	O	3.3	HO	3.6	HO	3.3	HO	3.30	HO	3.67	HO	3.51	HO	3.34	HO
S.1.10. code of conduct and discipline;	3.18	O	3.3	HO	2.9	O	3.5	HO	3.7	HO	3.3	HO	3.45	HO	3.67	HO	3.53	HO	3.44	HO
S.1.11. attendance; and	3.28	HO	3.6	HO	3.0	HO	3.4	HO	3.7	HO	3.3	HO	3.28	HO	3.67	HO	3.47	HO	3.47	HO
S.1.12. others (please specify)																				
Implementation																				
I.1. Students are provided opportunities to participate in the planning and implementation of activities concerning their welfare.	3.08	O	3.2	O	3.0	O	3.2	HO	3.4	HO	3.1	O	3.3	HO	3.6	HO	3.3	O	3.30	HO
I.2. Concerned officials, faculty and staff are promptly responsive, needs and problems of the students.	3.00	O	3.3	HO	3.0	O	3.4	HO	3.3	HO	3.29	HO	3.4	HO	3.5	HO	3.2	HO	3.38	HO
I.3. The administration faculty, staff, and student work harmoniously and maintain good relationship.	3.08	O	3.2	HO	3.1	O	3.5	HO	3.5	HO	3.32	HO	3.3	HO	3.3	HO	3.2	HO	3.38	HO
Outcomes																				
O.1. The institution has an effective and functional Student Administration.	3.03	O	3.2	HO	3.0	O	3.4	HO	3.3	HO	3.38	HO	3.3	HO	3.5	HO	3.23	HO	3.31	HO
O.2. Policy implementation is efficient.	3.18	O	3.1	O	3.0	O	3.4	HO	3.2	HO	3.38	HO	3.3	HO	3.5	HO	3.26	HO	3.30	HO
Total	3.00	O	3.3	HO	3.0	O	3.4	HO	3.5	HO	3.49	HO	3.3	HO	3.5	HO	3.47	HO	3.38	HO



The table 10 shows that the teacher and the non-teaching personnel highly observed the Area F: Student Administration with an average weighted mean of 3.38. The highest observation among the student administration is in connection with the registration requirements and attendance both with an average weighted mean of 3.27. On the other hand, concerned officials, faculty and staff act promptly on requests, needs and problems of the students is also highly observed but obtained the lowest average weighted mean of 3.28 on the parameter.

Gabalidon campus non-teaching personnel obtained the highest weighted mean of 3.59 among the group of respondents based on their observation on the Student Administration while San Isidro campus student got the lowest weighted mean.

Difference between the observation and satisfaction of the respondents in three campuses
Table 11

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 Observation and Satisfaction	4.38	0.784	0.000

Results showed that there is a significant difference between observation and satisfaction among the Faculty, Non-Teaching and Students on the selected campuses; Gabaldon, San Isidro and Sumacab Campus.

Student Administration supports the University's strategic objectives through the delivery of efficient and responsive student administration services. This means to carry out the goals of the University, it must have a functional and well-implemented policy. Both the body who gives the services and the students who receive the services offered by the institution must observe the implementation of those school regulations. Policies establish rules and regulations to guide acceptable behaviour and ensure that the school environment is safe for students, teachers and school staff. School policies also help create a productive learning environment according to Wong, 2009.

As Johnsrud and Rosser (2008) observed that, to make a difference at the institutional level, it may make most sense for an institution to measure faculty member's perceptions specific to their campus.

Significant difference between and within groups in three campuses
Table 12
ANOVA

Satisfaction	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.481	2	0.741	3.685	0.026
Within Groups	87.435	435	0.201		
Total	88.916	437			
Observation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.829	2	1.414	7.526	0.001
Within Groups	81.747	435	0.188		
Total	84.575	437			

Results showed that there is a significant difference between observation and satisfaction between groups such as Gabaldon, San Isidro, and Sumacab as stated at the highlighted significant in the table above.

Difference between the response on the observation and the satisfaction of the respondents as compared per campuses

Table 13
Post Hoc Tests

	San Isidro	Sumacab
Gabalidon	0.046	0.038
San Isidro		0.993

Results showed that there is a significant difference between Gabaldon Campus to San Isidro Campus and San Isidro Campus to Sumacab Campus. The individual is highly dependent on school and its resources for his/her development. These are in the

forms of human and material resources, which can lead to full development of the individual. The school, however, cannot perform its maximum role in the development of the individual in its attendance if schools are not effectively.

Differences based on faculty and staff observation and satisfaction
Table 14

Observation	Levene Test for Equality of Variances	
	F	Sig.
Equal variances assumed	0.072	0.789
Equal variances not assumed		
Satisfaction	Levene's Test for Equality of Variances	
	F	Sig.
Equal variances assumed	2.960	0.089
Equal variances not assumed		

The result showed that there is no significant difference between the observations of the faculty and staff but in terms of satisfaction it showed that there is a significant difference. According to Castor (2007), organizational climate affects every individual in an organization. It is particularly influential in the

lives of student and personnel surrounding them. The type of climate which develops in a school is induced to a considerable degree of an administrator who typically wields more influence than any other individual in a school.

Differences between the observation and satisfaction of the respondents in Area F
Table 15

	N	Correlation	Sig.
Pair 08 and 01 2	438	0.795	0.000

Results showed that there is a significant difference in terms of observation and satisfaction in Area F which is the Student Administration among the faculty, non-faculty teaching and student. Machado-Taylor, Meira Soares and Gouveia (2010) pointed out that academic staff satisfaction and motivating play

an important role contributing to positive outcomes to the quality of the institutions and to student's learning. The services quality is mostly recognized by the cooperation of the administrative staff as well as the faculty and staff with the students.



Difference of the Observation on Area F as compared to the different groups
 Table 16

	LOHB	Non-Teaching	Student
Regular	0.966	0.794	0.000
LOHB		0.999	0.015
Non-Teaching			0.000

Results showed that there is a significant difference in Area F between Regular to Student, LOHB to student and Non-teaching to student.

Difference between the satisfactions of the respondent on Area F as compared to the different groups
 Table 17

	LOHB	Non-Teaching	Student
Regular	0.995	0.680	0.000
LOHB		0.958	0.039
Non-Teaching			0.000

Results showed that there is a significant difference in area F between Regular to Student, LOHB to student and Non-teaching to student. As stated by Tinto (2009), student must experience success to remain in college, it is also vital that they become involved and engaged in other areas of college life. Students who do not become socially integrated may or may not suffer from persistence issues as it largely depends on the individual.

Therefore, failing to become involved in campus activities, organizations and extracurricular activities, which promote involvement and integration of college life can lead to higher attrition for some students. Consequently, it is imperative for higher education administrators to work diligently to provide students with opportunities to get involved with campus organizations and activities.

Difference based on observation and satisfaction on the Areas
 Table 18

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 AO & AS	111	0.770	0.000
Pair 2 BO ss & BS	111	0.848	0.000
Pair 3 CO & CS	24	-0.039	0.856
Pair 4 DO % DS	24	0.003	0.991
Pair 5 EO & ES	111	0.765	0.000
Pair 6 FO & FS	111	0.780	0.000

Results showed that there is a significant difference in terms of the observations and satisfactions of the faculty, non-teaching and students in terms of Area A which is the Organization, Area B which is the Academic Administration Area E which is the Records Management and Area F which is the Student Administration however in terms of Area C which is the Financial Management and Area D which is the Supply Management, it showed that there is no significant difference.

Koturk, Yalcin, and Cobanoglu (2008), organizational image is the total of thoughts, emotions, and perceptions resulting from clear result of information formed in the minds of stakeholder as a result of communication with the institution about that institution and its elements. When these perceptions are positive, satisfaction and loyalty will be achieved as a result of the information formed in the minds of stakeholders but if it is negative, it will lead to decrease of potential of the organization.

Table 19
 Multiple Comparisons

Dependent Variable	I) CP	J) CP	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
BCI	Regular	LOHB	0.04526	0.13281	0.944	-0.2844	0.1749
		Non-Teaching	0.26703	0.08821	0.006	0.0981	0.5060
	LOHB	Regular	-0.04526	0.13281	0.944	-0.3749	0.1844
		Non-Teaching	0.24175	0.12944	0.180	-0.0795	0.5630
	Non-Teaching	Regular	-0.18709	0.08821	0.006	-0.5060	-0.0681
		LOHB	-0.34175	0.12944	0.180	-0.5630	0.0795
ES	Regular	LOHB	0.03769	0.13658	0.963	-0.3013	0.1767
		Non-Teaching	0.31587	0.09072	0.009	0.0907	0.5410
	LOHB	Regular	-0.03769	0.13658	0.963	-0.3767	0.1013
		Non-Teaching	0.27817	0.13312	0.118	-0.0522	0.6086
	Non-Teaching	Regular	-0.31587	0.09072	0.009	-0.5410	-0.0907
		LOHB	-0.27817	0.13312	0.118	-0.6086	0.0522

Result showed that there is a significant difference between Regular to Non-teaching in terms of observations and satisfactions in Parameter B which is the Academic Administration. Requirme (2008), one of the movements in school administration and supervision is directed towards the continuous development of better humane, wholesome administrator-teacher relationship. This relationship will affect the teaching learning process which may become affective depending in the qualities the administrators possess and the administrative skills and supervisory practices he/she employs.

CONCLUSIONS

Majority of the student respondents were teenager, female and single. Most of them were 4th year level and BSE students.

In terms of the teaching and non-teaching personnel respondents' majority were in 25-30 age, female and married. Most of them were teaching personnel and college graduates.

Based on the overall tally made by the researchers, the Administration Services such as the organization; academic administration; financial management; supply management; records management; and student administration were highly observed by the respondents.

It also showed that they were highly satisfied in terms of the satisfaction in the following Administration Services such as the organization; academic administration; financial management; supply management; records management; and student administration.



Based on the interpreted data, there is a significant difference between Gabaldon Campus to San Isidro Campus and San Isidro Campus to Sumacab Campus.

The result showed that there is no significant difference between the observations of the faculty and staff but in terms of satisfactions, it showed that there is a significant difference.

Based on the results, there is a significant difference in terms of observation and satisfaction in student administration between Regular to Student, LOHB to student and Non-teaching to student.

The researchers came up with the result that the university offers administration services that are highly observed by the respondents and they are highly satisfied. The findings reveal that the organization is the most observed and where the respondents were highly satisfied among the services offered by the university.

On the other hand, the student administration is the service of the university that obtained the lowest rank among the parameters measured but still is highly observed and got high satisfaction based on the respondents.

The Human Resource Management Office (HRMO) that maintains accurate, up-to-date and systematically filed records of faculty and non-teaching personnel that is in the record management is the most observed area among the questions given. While, maintenance and other operating expenses that belongs to financial management ranked lowest among the questions that were analyzed in the observation.

Recommendations

While the findings of this research confirmed the correlation of the observation and satisfaction of the respondents and the significant difference of the areas between and among the groups also the extent of the observation and the satisfaction with regards to the different services offered by the university, some recommendations were projected by the researchers.

The researcher do hereby suggest to continue the positive practices in administration in the different areas that includes the organiation, academic administration, financial management, supply management, records management and student administration.

Further, their communication practices and the involvement of the students with regards to the student administration can be strengthening.

The administration should maintain the good services such as preparing of guidelines on the proper use and maintenance of facilities, equipment, supplies and materials, etc., replacement of old and unserviceable equipment, a well-designed and functional organizational structure, providing student opportunities to participate in the planning and implementation of activities concerning their welfare, all procurement transactions are transparent, and student directory records.

Findings can be communicated to the governing body for the awareness of the current observation and satisfaction of the employee and its clientele.

The researcher also recommends the other future researchers to deepen the study by including other departments and colleges of the university.

The result of this research study will give a glimpse and a synopsis for much inclusive research about the Administration Services.

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FACTORS RELATED TO MALNUTRITION DISEASES AMONG CHILDREN UNDER-FIVE YEARS AT EL-OBEID SPECIALIZED PEDIATRIC HOSPITAL, NORTH KORDOFAN, SUDAN (2021 - 2023)

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ABSTRACT

Abstract Background: Malnutrition is a global issue with patterns and prevalence that vary significantly not only among different nations of the world but also in different region of a country. This study aimed to determine the factors related to malnutrition diseases among children under-five years at El-Obeid Specialized Pediatric Hospital, North Kordofan- Sudan from April 2021 to October 2023. **Methodology:** This is an institutional cross-sectional descriptive analytical study. 384 of under-five children aged 6-59 months who were selected using simple random sampling technique was implemented. Data collection was focused on anthropometric tests (MUAC) for children and using structured questionnaire for mothers of children. Data were entered and analyzed using the Statistical Package of Social Sciences (SPSS) version 23.0 and chi-square (X^2 -test). **Result:** The results indicated that (38.8%) of children had suffered from malnutrition, more than quarter (27.1%) of the families their monthly income affected by the COVID 19 pandemic. Third of mothers (30.5%) held cultural beliefs related to child feeding. 13.5% of the children were not vaccinated. (2.9%) of families use drinking water from uncovered storage containers. There is statistical significant correlation between the monthly incomes, diarrhea in last two weeks, vaccination status and malnutrition statuses (p -value = 0.000). **Conclusion:** Based on our findings, the study indicated that family income, COVID 19 pandemic, family size; immunization, cultural beliefs and diarrhea are important factors that associated with malnutrition among children. The study recommended that doing further studies and continuous health education program among mothers for preventing malnutrition.

KEYWORDS: Children under-five, Malnutrition, MUAC, COVID 19, Immunization, Sudan.

1. INTRODUCTION

Malnutrition refers to state of either under nutrition or over nutrition. Under nutrition occurs when the diet person consumes does not meet their body requirement for growth and developments were as over nutrition occurs when person consumes too many calories^[1]. Malnutrition in under- five children continues to be a major health problem^[2].

It is the most important risk factor for the burden of disease causing about 300,000 deaths per year directly or indirectly responsible for more than half of the all deaths in children^[3]. Globally, approximately 60 million and 13 million of children are affected with moderate and severe acute malnutrition, respectively^[4]. The causes of malnutrition are directly related to inadequate dietary intake as well as disease, but indirectly to many factors, among others household food security, maternal

and child care, health services and the environment, while most nutrition interventions are delivered through the health sector, non-health interventions can also be critical. Actions should target the different causes to reach sustainable change, which requires multisectoral approach^[5]. Good nutrition sets children on the path to survive and thrive. Well-nourished children grow, develop, learn, play, participate and contribute – while malnutrition robs children of their full potential, with consequences for children, nations and the world^[6].

2. OBJECTIVE

The objective of the present study was to determine the factors related to malnutrition diseases among children under-five years at El-Obeid Specialized Pediatric Hospital, North Kordofan- Sudan (2021 to 2023).



3. MATERIALS AND METHOD

3.1. Sample size

This study was done in El-Obied Specialized Pediatric Hospital in El-Obied City – North Kordofan, Sudan among children under 5 years and their mothers. The sample size was 384, it determined by using the following formula:

$$n = \frac{z^2 pq}{d^2}$$

Where:

Z= 95% = (1.96).

P= 50% = 0.50 (Prevalence of malnutrition as 50%), [7].

q= (1- P) = (1- 0.50)

d= marginal error = 0.05.

3.2. Sample Techniques and Processing

Simple random sampling technique was implemented. This technique gives each member of target population an equal and independent chance of being selected for the study [8]. Where children in the age group between 6 to 59 months were considered for the study, the mother's child answered the questions during the study. Data were collected by direct measurement of anthropometric parameters (MUAC), and using indirect method (by using a structured questionnaire for mothers of children). Data entered and analyzed using SPSS version (23.0), Microsoft Excel (2010) and Chi-square (X²-test) and data were displayed in tables and figures showing the percentage.

4. RESULT

Table 1: Demographic and socioeconomic characteristics of respondents, El-Obeid Specialized Pediatric Hospital; (n= 384).

Characteristics	Categories	Frequency (n)	Percent (%)
Mother's age (in years)	15-19	28	7.3
	20-24	72	18.8
	25- 29	102	31.2
	30-34	99	25.8
	35-39	35	9.1
	More than 40	30	7.8
Number of under-five children at house	One child	101	26.3
	Two children	156	40.6
	Three children	96	25.0
	Four children	26	6.8
	five children	5	1.3
Family monthly income (SDG)	Less than 10000	56	16.9
	10000 – 20000	227	59.1
	More than 20000	92	24.0
Impact of COVID 19 pandemic on family monthly income.	Affected	104	27.1
	Not affected	280	72.9

Table 2: Availability of covers for water storage containers, El-Obeid Specialized Pediatric Hospital; (n=384).

Covers for water storage containers	Frequency	Percent %
Available	373	97.1
No available	11	2.9
Total	384	100

Table (3): Cultural beliefs with regards to children feeding, El-Obeid Specialized Pediatric Hospital; (n=384).

Question and answer	Frequency	Percent %
Do you have any cultural beliefs related to child feeding? (n=384):		
Yes	117	30.5
No	267	69.5
Total	384	100
If yes what types of foods are subject to those beliefs? (n=117):		
No eating eggs before 5 years of age.	62	53.0
Watermelon	24	20.5
Dried okra	10	8.5
Beef	6	5.1
More than one	15	12.8
Total	117	100

The above table show that 30.5% held cultural beliefs while 53.0% of them not permitted to eat eggs before 3 years of age, 20.5%, watermelon 8.5%, dried okra, 5.1%, beef and 12.8% more

than one choice. However, 69.5% did not hold any cultural beliefs.

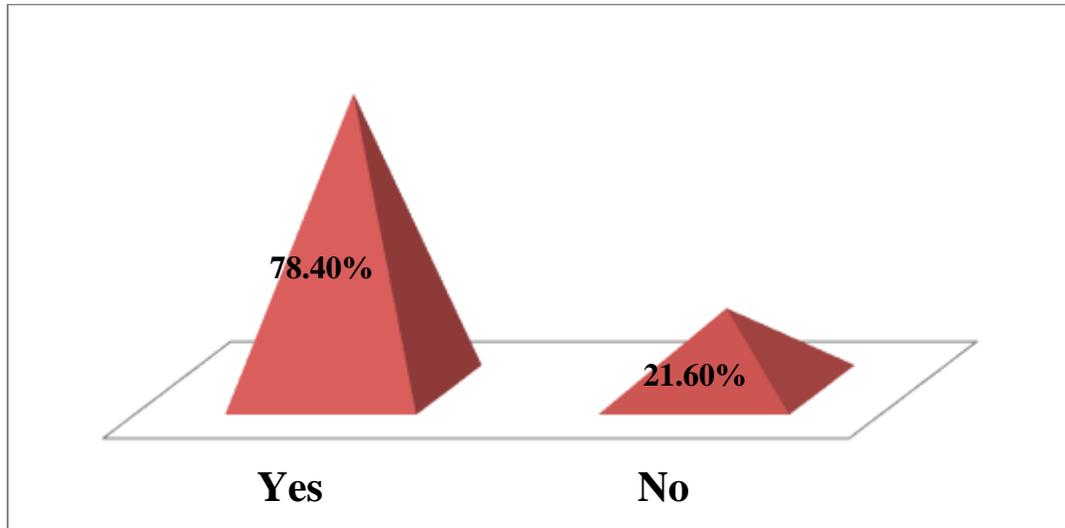


Figure (1): percentage of frequency of diarrhea episode in last two week, El-Obeid Specialized Pediatric Hospital; (n=384).

Regard the above figure 78.4% of the children were faced health problem with-in two week, like diarrhea and 21.6% of them didn't suffer from diarrhea at the time.

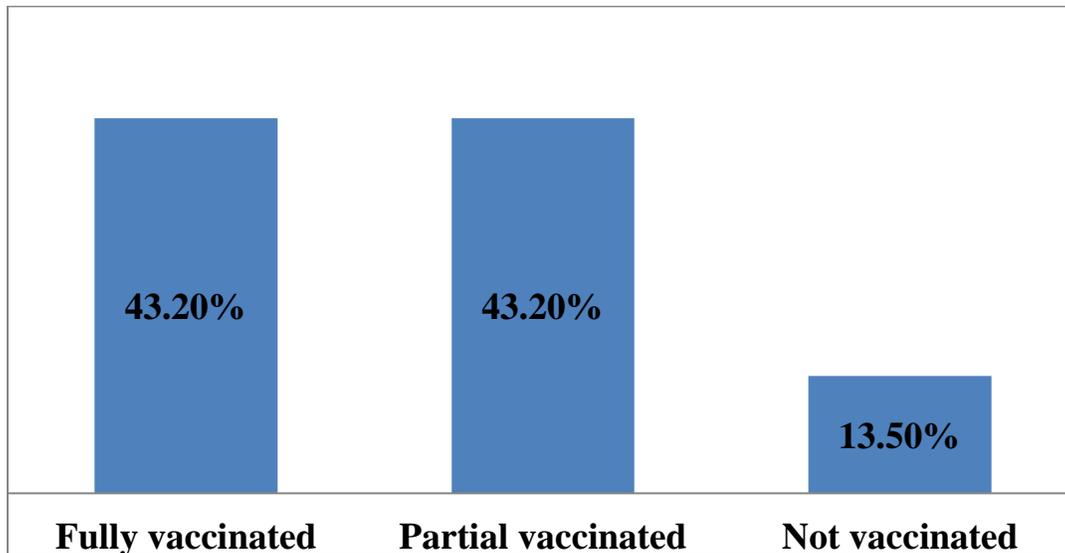


Figure (2): Percentage of study group according to the immunization status of the under-five children, El-Obeid Specialized Pediatric Hospital; (n=384).

Table (4): Distribution of children according to mid upper arm circumference (MUAC) El-Obeid Specialized Pediatric Hospital; (n=384).

MUAC	Frequency	Percent%
from 0 to 11.5 cm (Malnutrition)	149	38.8
≥11.5 and <12.5 (at risk of malnutrition)	180	46.9
Normal (>12.5)	55	14.3
Total	384	100



The above table shows that 14.3% of children were having MUAC more than 12.5 cm, 46.9 of children were having MUAC in range between ≥ 11.5 to < 12.5 cm and 38.8% of children were

having MUAC less than 11.5 and those suffering from malnutrition according to MUAC measurement.

Table (5): Relationship between diarrhea in last two weeks and nutritional status El-Obeid Specialized Pediatric Hospital; (n=384).

Diarrhea in last two weeks	MUAC			Total
	Malnutrition	At risk of malnutrition	Normal	
Yes	137 (45.5%)	135 (44.8%)	29 (9.6%)	301
No	12 (14.4%)	45 (54.2%)	26 (31.3%)	83
Total	149 (38.8%)	180 (46.9%)	55 (14.3%)	384
<i>P-value = 0.000 df= 2 $\chi^2 = 38.762$</i>				

Table (6): Relationship between vaccination status and nutritional status El-Obeid Specialized Pediatric Hospital; (n=384).

Vaccination Status	MUAC			Total
	Malnutrition	At risk of malnutrition	Normal	
Fully vaccinated	38 (22.9%)	96 (57.8%)	32 (19.3%)	166
Partial vaccinated	69 (41.6%)	76 (45.8%)	21 (12.6%)	166
Not vaccinated	42 (80.7%)	8 (15.4%)	2 (3.8%)	52
Total	149 (38.8%)	180 (46.8%)	55 (14.3%)	384
<i>P-value = 0.000 df= 4 $\chi^2 = 57.205$</i>				

The above table shows there are high significant relation between the vaccination status and nutritional status (p -value = 0.000).

Table (8): Relationship between number of under-five children at house and nutritional status, El-Obeid Specialized Pediatric Hospital; (n=384).

Number of under five children at house	MUAC			Total
	Malnutrition	At risk of malnutrition	Normal	
One child	26 (25.7%)	54(53.46%)	21(20.79%)	101
Two children	62(38.9 %)	77 (48.4 %)	17 (10.69 %)	159
Three children	44 (45.8%)	37 (38.5%)	15 (15.5%)	96
Four children	15 (57.7 %)	10 (38.5%)	1 (3.8%)	26
Five children	2(40%)	2(20%)	1(20%)	5
Total	149 (38.8%)	180 (46.8%)	55 (14.3%)	384
<i>P-value = 0.025. df= 8 $\chi^2 = 17.545$</i>				

5. DISCUSSION

The present study showed that 38.8 % of children were malnourished < 11.5 cm according to MUAC; this finding is higher than that found in various countries; a previous study conducted in India, maintained that 17.3% of children were having MUAC less than 11.5 cm^[9]. In addition to a similar study conducted in Khartoum state revealed that 20.9% of children were badly nourished^[10]. Malnutrition in under- five children continues to be a major health problem^[2].

The current study illustrated that the prevalence of malnutrition was found high in children aged between 12- 23 month and decreased when increased the child age, this finding was in contradiction with studies conducted in various countries, study conducted in Pakistan showed that the prevalence of malnutrition was found higher in younger children aged 6-11 months, and overall malnutrition decreased with age^[2]. Also a similar study conducted in the Princess Marie Louis Children’s Hospital (PML), Accra, Ghana detected that more than half of the

malnourished children were in the age 6 months to 12 months age group^[11]. “The low risk to malnutrition may be due to the protective effect of breastfeeding since almost all children are breastfed throughout the first year of life. Higher rates of malnutrition after the 12 months are linked to inappropriate food supplementation during the weaning period”.

The study demonstrated that 96 (25%) of families had three children, 44 (45.8%) of them were malnourished, this finding were confirmed in this study there are significant relation between number of under-five children at house and nutritional status; (p -value= 0.025) That mean families with high number of children under-five more likely to be affected with malnutrition, this finding confirming by^[12]which maintained that “ Children nutritional status can be affected by increase in family size, that means that increase in the numbers of children in a household decreases the food allocated to each child which consequently affects children nutritional status. Also these



results were agreed when compared with result obtained from study conducted in Lagos state, Nigeria maintained that “the increased number of children in families placed a heavy burden on the scarce household resources, particularly on financial and food; it also reduced the time and quality of care received by the children”^[13]. A similar study conducted in Pakistan indicated that “to having more children was a significant predictor for childhood malnutrition”^[14].

The present study showed that about 104 (27.1%) of the families, their monthly income affected by the COVID19 pandemic in Sudan, this findings agree with^[15] who mentioned that” COVID 19 pandemic created is the increased risk of malnutrition due to the economic impact of social distancing, full or partial lockdowns, and quarantining, many households have suffered loss of income and/or sources of supplemental food such as school meals for children. Although the causes of malnutrition are multifactorial, government-imposed shutdowns and quarantines have caused further shifts in the food industry and dietary practices increased health needs driven by the COVID19 pandemic has created an additional burden on the already exhausted health system in Sudan over the last two years”.

This study about 2.9% of families use drinking water from uncovered storage containers, this finding agree each other study conducted in Northwest Ethiopia, which mentioned that “families use drinking water from unprotected source were 3 times more likely to have malnutrition as compared to those children whose family use drinking water from protected source “^[16].

The present study showed that about 117 (30.5%) of mothers had cultural beliefs related to child feeding and out of these mothers 62 (52.9%) of them reported that they do not give eggs to children under five years of age since eggs disrupts them to start speaking. Eggs are an important source of protein, micronutrients, and fats. However, traditionally they are acknowledged cholesterol content hence having adverse effects to health^[17]. These findings in line with study conducted in Referral Hospital, Uganda revealed that “the concerning cultural beliefs with regards to children feeding, 68% held cultural beliefs and mentioned that children below the age of five are not permitted to eat eggs because of the perception that egg consumption among children below 59 months delays speech”^[18]. According to cultural beliefs related to child feeding, the study showed that 57 (48.7%) of mother’s whose children suffer from malnutrition, It indicated that cultural beliefs related to child feeding influence the nutritional status for children under five years of age there are high significant relations between cultural beliefs related to child feeding and nutritional status (p -value= 0.031). A similar study conducted in Uganda found out that socio-cultural aspect such as feeding practices and traditions related to nutrition of children under five years old are among the most important factors that will contribute to the development of cases of children malnutrition^[19].

The present study illustrated that 301 (78.38%) of children were suffering from the frequency of diarrhea episode in last two week

of data collection and 137 (45.5%) of them suffering from malnutrition. The current study proved that diarrhoeal disease was significantly associated with increasing prevalence of malnutrition; these results reflect that there are high significant correlation between a diarrhea in last two weeks and nutritional status (p -value 0.000). This result was in line with other studies conducted in Pastoral Communities of Afar Regional State - Northeast Ethiopia, mentioned that “children who had diarrhoeal disease in the past two weeks prior to the study were 4.6 times more likely to be malnutrition than those children without diarrhoeal disease”. This might be due to the fact that diarrhoeal may result in lower appetite, poor digestion, and mal-absorption which lead to malnutrition. The other possible reason also might be that malnourished children would have more diarrhoeal episodes and a child with diarrhea losses weight and can quickly become malnourished.”^[20]. In addition to a similar study reported that “infection with diarrhoeal diseases contributes to chronic malnutrition by inhibiting intestinal absorption of nutrients and is strongly correlated with stunting”^[20]. Also study conducted among maternal and child undernutrition, mentioned that” Diarrheal diseases are generally more frequent and tend to be more severe in malnourished children because of the association between malnutrition and infection”^[21]. On other hand, this finding disagree with what was reported that ” diarrhoeal diseases, subsequent malnutrition and their consequences may cause 2.4 million deaths per undernutrition in turn increases susceptibility to infectious diseases, such as diarrhea, thus perpetuating somewhat of a vicious circle^[22].

The present study illustrated that about 52 (13.5%) of the children were not vaccinated. 42 (80.7%) of them suffered from malnutrition. Not vaccinated children were more likely to be malnutrition than vaccinated children, vaccine is very important of the children under five to prevent of disease and completion of immunization schedule are very important. This finding was confirmed by Gebre which mentioned that “Non-immunized children were 2 times more likely to be underweight than vaccinated children^[20]. Immunization is one of the most successful public health interventions^[23]. Childhood immunization is a key intervention to promote the health, well-being and survival of children^[24].

6. CONCLUSION

Based on our findings, the study indicated that the factors that related to malnutrition include family income; COVID 19 pandemic, family sizes; non-completed immunization, cultural beliefs and diarrhea episode in last two week of data collection it is important factors lead to malnutrition among under -five children. The study recommends by doing further studies and continuous health education program of the mothers to prevent the malnutrition of children.

7. ETHICAL CONSIDERATIONS

Ethical approval was taken from the appropriate management authority; Sheikan Locality, the General Department of Health



Affairs and Ministry of Health in North Kordofan State and Ministry of Education. Ethical permission to carry out study was obtained prior data collection from local authorities, and verbal consent was obtained from mothers of children.

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Abbreviations

COVID 19	Coronavirus Disease 2019
MUAC	Mid Upper Arm Circumference
PML	Princess Marie Louis Children's Hospital
SPSS	Statistical Package for Social Sciences
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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THE IMAGE OF CHILDREN IN CHARLES DICKENS' LITERARY WORKS

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ANNOTATION

Charles Dickens is a great representative of English Victorian literature who depicted the lives of orphan children. An in-depth analysis of the author's novels, including, "Great Expectations", "Oliver Twist", "Dombey and Son", "David Copperfield" show the writers mastery in creating images of oppressed children and the childhood experiences of the heroes.

KEY WORDS: Victorian literature, author, genre, novel, hero, image of children, Bildungsroman.

Charles Dickens is a prominent figure in the world of literature, whose writings capture readers with fascinating plots while also providing incisive glances into the socioeconomic intricacies of his day. Among the many themes that run through Dickens' books, the portrayal of children stands out as particularly heartbreaking and thought-provoking. This research explores into Dickensian literature's vast tapestry to uncover the complexity and nuanced representations of children. As we embark on this journey, the goal is to decode the underlying messages and commentary that Dickens communicates through his portrayal of the young characters, revealing not just the author's creative genius but also the societal reflections ingeniously embedded in the narrative canvas.

Understanding the significance of Dickens' portrayal of children requires an examination of Victorian England's historical and social background. Dickens wrote during an era of significant social and economic change, and his works, such as "Oliver Twist," "David Copperfield," and "Nicholas Nickleby" act as mirrors for society's issues, particularly those encountered by its youngest members. In "Oliver Twist" the oppressed image of Oliver with his "Please, sir, I want some more,"¹ vividly captures the harsh realities faced by impoverished children in the workhouse. Through his experiences among unfair members of society, he suffers mostly from mistreatments of elderly people. However, even he was caught by cruel street pickpockets and made to steal the boy didn't lose his innocence and was loyal to his own ideology. The writer describes the feelings of the young hero so skillfully, as if he wants to teach a lesson to those who can't fight against injustice treatment. His poor life and weakness portray the hard destiny of most children of that time.

Exploring the iconic images of children in Dickens' literature exposes a wide range of childhood experiences. Characters such as Oliver Twist, who experiences the difficulties of the workhouse, Tiny Tim, who represents fortitude in the face of physical challenges, and David Copperfield, who navigates the complexity of a difficult childhood, all provide distinct viewpoints.² Dickens uses these characters to weave a complex tapestry of childhood memories that encourages examination and interpretation.

Dickens, a master of symbolism and imagery, uses these themes to portray children in his novels. In "Great Expectations" Estella, epitomizes the societal impact on childhood innocence.³ Estella's chilling words, "I am what you have made me. Take all the praise, take all the blame; take all the success, take all the failure; in short, take me,"⁴ emphasize the influence of societal upbringing on an individual's character. She is characterized as being cold-hearted almost from the very beginning of the novel. Her cruel treatment towards Pip and other male characters is deliberately and successfully imprinted on her by Miss Hevisham. Due to the ambitions of a vindictive and ignorant Miss Hevisham the life of a young girl falls into a chaos. Through the image of the main hero Pip the writer skillfully illustrates the dreams and plans of simple poor children, their inner feelings and disappointments. We can vividly witness his expectations by the three stages of Pip's life:

- His boyhood living with his sister and her husband;
- His youth in London living an idle and careless life
- His growing into a man which required him to learn the humbling lesson that wealth did not bring him happiness.

Undergoing these stages of his life sometimes he makes mistakes, takes incorrect decisions, however, at the end he understands that he was wrong. In the following passage the writer describes his sufferings after treating Joe badly: "But,

¹ Dickens, Ch. (1992). *Oliver Twist*. (p. 14). Wordsworth Editions.

² Bernardi, M. (2013). *Children and the dark side of Charles Dickens. Children and the Dark Side of Charles Dickens*.

³ Abdulmajid, M. A. M. (2018). *Analyzing the Portrayal of Children's Issues in some of Charles Dickens' literary Works* (Doctoral dissertation, Sudan University of Science and Technology)

⁴ Dickens, C. (1992). *Great Expectations*. (p.304). Wordsworth Editions.



sharpest and deepest pain of all - it was for the convict, guilty of I knew not what crimes, and liable to be taken out of those rooms where I sat thinking, and hanged at the Old Bailey door, that I had deserted Joe".⁵ From these words it is clear that his heart hasn't become completely cold and unkind.

In "Nicholas Nickleby", characters such as Smike and the orphans represent society's weak and mistreated youngsters. Nicholas's passionate defense, "Is there no help for these poor outcasts?" reveals Dickens' advocacy for the marginalized youth. Children, whether they represent optimism, resilience, or societal neglect, add to Dickensian literature's overall thematic depth.

Dickens used his books not only to convey stories, but also to advocate for social reform. The portrayal of children becomes an effective instrument for shedding focus on current issues such as child labor, poverty, and defects in the Victorian social order.⁶ In "Hard Times", Sissy Jupe questions the utilitarian approach to teaching, emphasizing the necessity of developing a child's imagination. Sissy's assertion, "Fancy does help, for I always fancy I would like to be able to do something better than I can,"⁷ underscores Dickens' critique of a rigid educational system. Examining the influence of these portrayals illustrates Dickens' role as a social critic who advocated for reform through his literary work.

Furthermore, even the youngest characters were endowed with psychological complexity by Dickens. The novel "Dombey and Son" provides a more nuanced view of his examination of the human condition through the prism of childhood.⁸ This psychological depth enriches the story, demonstrating Dickens' ability to convey the complexities of the human experience.

The examination of Charles Dickens' portrayal of children in Victorian literature reveals a multifaceted tapestry that goes far beyond basic literary concepts. As illustrated in "Oliver Twist" and "A Christmas Carol," the historical and social context of Dickens' time period provides the author with a background against which to depict vivid portraits of childhood. The classic images of children, ranging from Tiny Tim's perseverance to David Copperfield's hardships, provide a thorough picture of the different experiences of the young in Dickensian storytelling. The psychological complexity poured into Dickens' kid characters, as seen in works like "Little Dorrit" and "Dombey and Son," demonstrates the author's profound understanding of the human condition.⁹ Dickens examines the complexities of emotions, motivations, and societal dynamics through the lens of childhood, providing readers with a profound grasp of the diverse nature of the human experience. In "David Copperfield" the hero suffers from unfair and cruel treatment by his stepfather, in spite having a mother by him. Here the author shows the helplessness of women and their

dependence on men: *He beat me then, as if he would have beaten me to death. Above all the noise we made, I heard them running up the stairs, and crying out -I heard my mother crying out -and Peggotty.*¹⁰ These lines are evidence to our opinion on the social status of women. When Mr. Mudstone beat David his mother wasn't able to protect him.

In conclusion, almost all the novels by Charles Dickens describe the oppressed life of children either by unfair society or unkind family members. By conducting a thorough examination, knowledge of how Dickens skillfully constructed storylines that surpass temporal limitations, providing lasting perspectives on societal obstacles, the fortitude of the human spirit, and the complexities of growth is gained. The young characters in Dickens' writings are no longer limited to the pages of novels; they have become enduring symbols through which the author communicates important truths about the human condition and the society in which it unfolds. In Dickens' creative tapestry, the image of a child serves as a powerful lens through which we can see the tremendous intricacies and enduring relevance of his literary legacy.

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⁵ Charles Dickens. *Great expectations*. Planet Ebook.com, 2008 - P.252.

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⁸ Tasnim, N. (2016). *From adolescence to awakening: portrayal of the 'urban child' in Charles Dickens' novels* (Doctoral dissertation, BRAC University).

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DEPICTIONS OF THE IMAGE OF EDUCATORS IN ENGLISH AND UZBEK BILDUNGSROMANS

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ANNOTATION

This research conducts a comparative analysis of the Bildungsromans in English and Uzbek literature through an examination of the depictions of educators and students. The study focuses on the Uzbek novels "Sad Eyes" by Khudoyberdi Tokhtaboev and "Goodbye, Childhood" by Tokhir Malik, as well as the English classics "Great Expectations" by Charles Dickens and "Jane Eyre" by Charlotte Brontë, to uncover the intricate relationships that shape the developmental trajectories of young people.

KEYWORDS: Bildungsromans, education, comparative analysis, upbringing, character development, societal influences, cultural nuances, educational effects

Within the extensive collection of international literature, Bildungsromans function as captivating storylines that explore the profound transformations of the main characters, encapsulating the fundamental nature of their maturation processes. This scientific work seeks to investigate and compare the images of instructors and students in Uzbek and English Bildungsromans, providing an interesting look at the numerous connections that shape young people's futures. It uses comparative analysis to shed light on the shared humanity implicit in the bildungsroman genre while also acknowledging the distinct cultural views that form each novel.

Novels of formation (Bildungsroman) have become increasingly prominent in the domain of Uzbek literature, providing profound insights into the intricacies of upbringing and the influence that educators exert on the intellectual growth of young individuals. Particularly noteworthy are the narratives "Sad Eyes" by Khudoyberdi Tokhtaboev and "Goodbye, childhood" by Tokhir Malik, which explore the divergent experiences of children within the educational system.

Tokhtaboev skillfully depicts a prosperous family in "Sad Eyes," wherein the children, who are brought up in affluence, appear to encounter minimal substantial obstacles. Nevertheless, Zafar, the protagonist, and he considers that "I do not like my classmates. I can be more respected by not getting high scores because we are very rich" ("Sinfdoshtarimni xushlamayman. Ulardan ko'proq hurmat qozonishning "5" olishdanda boshqa yo'llari bor, Biz juda boymiz.")¹ which demonstrates an absence of regard for his contemporaries and society. His sibling, Akbar, on the other hand, goes on a transforming journey under the guidance of a kind teacher,

learning fundamental lessons about humanity and aspiring to personal improvement. Their parents Said and Yokutkhon, while meeting the financial requirements of the children, accidentally ignore the critical function of moral and ethical teaching. Their children are proud of only their money which is stated in the following sentence: "I am so excited because of pride when my parents count money hiding themselves." ("Oyijonimning va dadajonimning yashirincha pul sanayotganlarini ko'rsam g'ururdan to'lqinlanib ketaman").² Tokhtaboev emphasizes the analogy that childhood is like a blank white page, and it is the job of educators to decide what is written on it. Zafar's descent into criminality reflects the consequences of a poor upbringing, whereas Akbar, influenced by his teacher, emerges as a moral individual. In this novel the image Atouлло teacher, is depicted who desperately tries to teach children a true life from his own perspective, attempting to lead them into a correct path. He has been illustrated as a symbol of kind and honest leader, influencing young minds by being a role model.

Tokhir Malik's "Goodbye, childhood" unfolds to portray society indifference, which exacerbates the hardships experienced by youngsters. Characters such as Kamariddin, Salim, and Asror are disregarded and marginalized, to the point where they struggle to write an essay on the theme of a "Happy childhood" when asked at school. Asror thinks "What can I write for the essay? About yesterday's affair or about going to wedding parties with my dad? ... I am fed up with that" ("Xo'sh, inshoda nima haqida yozay? Kechagi voqeanimi yo bo'lmasa otam bilan to'yima-to'y yurishnimi? ... Ming la'nat").³ The widespread neglect of both the immediate environment and society at large has fatal effects. The

¹ Tokhtaboev Khudoiberdi (2018). *Mungli ko'zlar*. (p. 7). Yangi asr avlodi. Tashkent

² Tokhtaboev Khudoiberdi (2018). *Mungli ko'zlar*. (p. 9). Yangi asr avlodi. Tashkent

³ Tokhir Malik (2019). *Alvido, bolalik*. (p. 12). Publishing house of "Yoshlar". Tashkent.



characters, notably Kamariddin, battle with the terrible reality of their circumstances, including the inconceivable idea of causing harm to their parents. Kamariddin's thoughts "If I had a gun and my parents entered through this gate, I would shoot them. It is the punishment for the parents who leave their children." ("Hozir qo'limga miltiq berib qo'yishsa-yu, darvozadan otam bilan onam kirib kelishsa, shartta otardim. ... Bolasini tashlab ketgan ota-onaning jazosi shu.")⁴ which show that the parents are to blame for not being educators to nurture the children. Tokhir Malik's work emphasizes the enormous impact of cultural beliefs on children's well-being and raises important questions regarding the roles of educators and society in creating a caring atmosphere for their development.

In the framework of Bildungsromans, digging into notable works of English literature enriches the investigation of the interactions between instructors and students. Charles Dickens' "Great Expectations" and Charlotte Bronte's "Jane Eyre" show the transformational journeys of their respective protagonists, emphasizing the vital function of educators in developing character and impacting young lives.

Charles Dickens usually portrays two types of teachers, whose characters contradict to each other. As an example, we can take the teachers and educational system of two different schools in "David Copperfield".

In "Great Expectations", Dickens expertly tells the narrative of Pip, an orphan raised by his sister and her husband. The story follows Pip's interactions with numerous persons who play important roles in his moral and intellectual development. Miss Havisham, an enigmatic and eccentric character, has a major influence on Pip's perception of social status and personal standards, despite her unconventionality. Despite her eccentricities, Pip reflects, "Miss Havisham's lessons went beyond the ordinary; they challenged my understanding of societal norms and shaped the fabric of my moral compass."⁵ Furthermore, the convict Magwitch acts as an unexpected mentor, sparking a complicated interaction between moral development and societal expectations. In a moment of revelation, Pip contemplates, "Magwitch, the unlikely guide in my life, forced me to confront the intricacies of morality against the backdrop of societal norms. His influence was a paradox that shaped my character."⁶ The educational effects in "Great Expectations" go beyond standard classroom settings, highlighting the complexities of learning and character development. Pip reflects, "My education transcended the confines of formal schooling, weaving through the intricate threads of life, morality, and self-discovery."⁷ The primary educators in his life were his sister and her husband Joe, from whom Pip received important life lessons.

⁴ Tokhir Malik (2019). *Alvido, bolalik*. (p. 34). Publishing house of "Yoshlar". Tashkent.

⁵ Dickens, C. (1992). *Great Expectations*. (p. 128). Wordsworth Editions.

⁶ Dickens, C. (1992). *Great Expectations*. (p. 217). Wordsworth Editions.

The same can be seen in "Jane Eyre" by Sh. Bronte. Maria Temple is a kind teacher at Lowood school where Jane lived. She treated Jane and her friend Helen with respect and compassion. Another character is Bessie Lee, who serves as one of Jane's first positive female role model. However, the cruel, hypocritical master of the Lowood School, Mr. Brocklehurst preaches a doctrine of privation, while stealing from the school to support his luxurious lifestyle. After a typhus epidemic sweeps Lowood, Brocklehurst's shifty and dishonest practices are brought to light and he is publicly discredited. During the years of living at that school Jane suffered a lot from the cruel punishments and unfair treatments of this character.

In "Jane Eyre", Bronte delivers a bildungsroman centered on the titular protagonist, Jane, who overcomes obstacles and societal expectations to define her identity. The Lowood School provides as an important backdrop for Jane's early education, as she meets both inspiring and oppressive teachers. Jane muses, "In the hallowed halls of Lowood, Miss Temple's kindness was a beacon of light, a testament to the transformative power of positive influence. Yet, Mr. Brocklehurst's harsh judgments cast a dark shadow on my understanding of power dynamics within educational institutions."⁸ Miss Temple's positive influence and Mr. Brocklehurst's negative impact demonstrate the power dynamics that exist in educational institutions. As Jane matures from a mistreated orphan to a governess, her interactions with the moody Mr. Rochester help her discover her own identity. "Jane Eyre" paints a detailed picture of the protagonist's intellectual and emotional development, emphasizing the delicate interactions between educators, mentors, and the maturation of a young lady in Victorian society. "Jane Eyre" meticulously portrays the delicate interplay between educators, mentors, and the maturation of a young woman in Victorian society, illustrating that, "In the tapestry of my life, the threads woven by educators and mentors created a masterpiece of resilience, independence, and self-discovery."⁹

Examining these works alongside Uzbek Bildungsromans allows for a comparative analysis of the universal themes of schooling, societal expectations, and personal maturation. The broader examination of the portrayals of educators and students in Bildungsromans is enhanced by the diverse cultural contexts and narrative approaches present in these literary masterpieces.

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A REVIEW PAPER ON AWS

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ABSTRACT

Amazon Web Services (AWS) is a cloud computing platform that offers a wide range of services, including computing power, storage, and database, to help businesses scale and grow. With AWS, companies can access resources on an as-needed basis, allowing them to only pay for what they use. This flexible and cost-effective model enables organizations to quickly deploy applications and scale their infrastructure without the need for large upfront investments in hardware. Additionally, AWS provides a secure and reliable environment for storing and managing data. Overall, AWS empowers businesses to innovate and operate more efficiently by leveraging the power of cloud computing technology. Cloud computing has emerged as the preeminent computing platform for multiple enterprises. AWS is the most trusted provider of cloud computing which not only provides excellent cloud security but provides excellent cloud storage services. This is one of the major reasons many enterprises are choosing AWS cloud computing.

INTRODUCTION

Cloud computing is a technology that allows businesses to access and use computing resources, such as servers, databases, networking, software, and analytics, over the internet. This means that businesses no longer need to invest in physical infrastructure or maintain it themselves. Instead, they can rely on cloud service providers like Amazon Web Services (AWS) to handle the infrastructure and provide access to these resources on a pay-as-you-go basis. AWS is one of the leading cloud computing platforms of all sizes and industries. These services include computing power through virtual servers (EC2), storage options (S3), database (RDS), networking solutions (VPS), analytic tools (Redshift), and machine learning services (Sage Maker), among others. By leveraging AWS, businesses can benefit from increased flexibility, scalability, and cost-effectiveness. They can quickly deploy new applications, scale resources up or down as needed, and only pay for what they use. Additionally, AWS offers a high level of security and reliability, with data encryption, compliance certifications, and built-in backup and disaster recovery options. Cloud computing is attractive to business owners as it eliminates the requirement for users to plan ahead for provisioning, and allows enterprises to start from the small and increase resources only when there is a rise in service

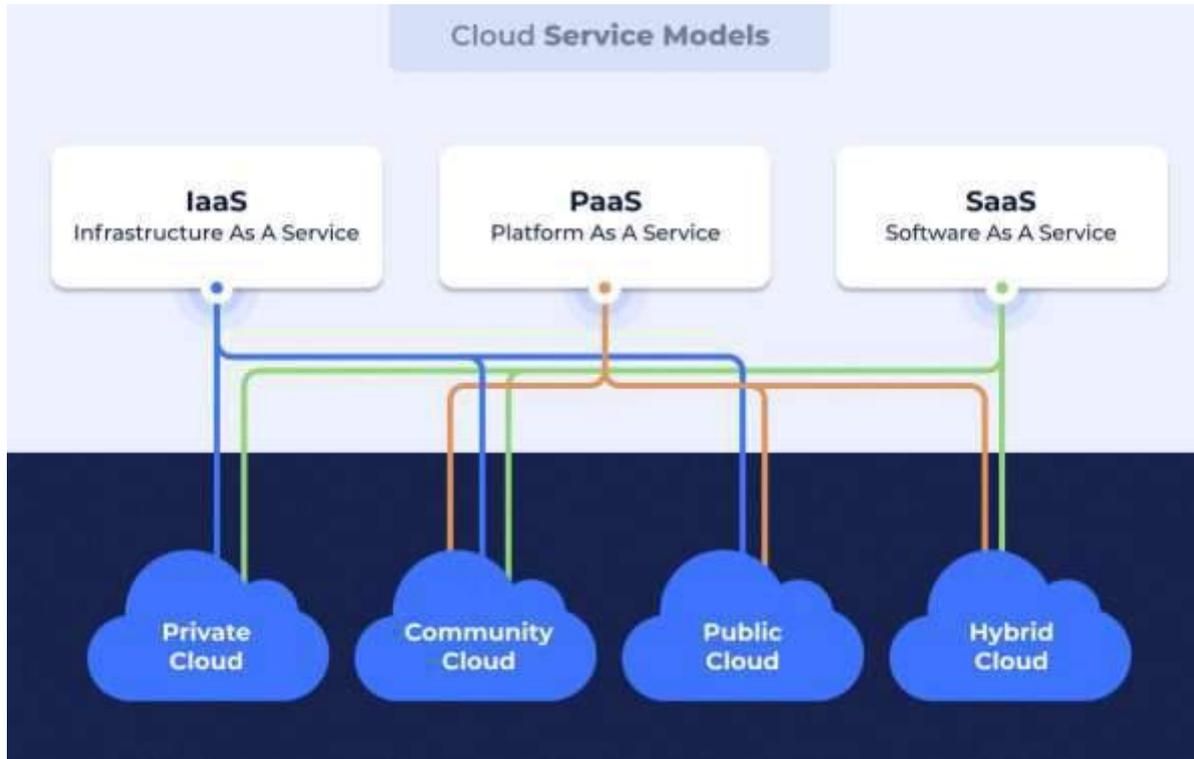
demand. Overall, AWS businesses with the opportunity to innovate and grow without being hindered by traditional IT constraints. It allows them to focus on their core business activities while leaving the infrastructure management to the experts at AWS. As a result, businesses can operate more efficiently and effectively in today's digital landscape. Cloud computing is a network of remote servers that store and retrieve data over the internet. It provides a variety of IT services, including: Servers, Databases, Software, and Virtual Storage Networking.

Clouds are divided by two parts

- Based on the cloud computing environment.
- On the basis of services provided.

Clouds Modal Types

- **Deployment Modal:** Refer to the management of the cloud's infrastructure. It also tells the nature and purpose of the cloud.
- **Service Modal:** Cloud computing is a broad term that holds a more extensive range of services. It is composed of a particular type of service; a cloud computing platform allows its users to access.



Explaining the Deployment Modal in cloud computing:

Deployment modal in cloud computing refer to the different ways in which cloud services can be deployed and accessed. There are four main deployment models:

- A. Public Cloud:** In a public cloud deployment, cloud services are provided over the internet by a third party cloud provider, such as AWS, Microsoft Azure, or Google Cloud Platform. These services are made available to the general public and are accessible to anyone who wants to use them.
- B. Private Cloud:** A private cloud is a infrastructure that is dedicated to a signal organization. It can be physically located on-premises or hosted by a third-party service provider. Private cloud offer greater control, security, and customization options, making them suitable for organizations with specific compliance or security requirements.
- C. Hybrid Cloud:** A hybrid cloud deployment modal combines public and private cloud resources, allowing data and application to be share between them. This modal provides the flexibility to move workloads between public and private clouds based on business needs, as well as the ability to maintain sensitive data in a private cloud while leveraging the scalability of public cloud resources.
- D. Community Cloud:** A community cloud is shared by several organizations with common concerns, such as regulatory compliance or industry-specific requirement. It can be managed by the organizations themselves and offers a balance between the benefits of public and private clouds.

Type of the cloud computing services:

There are three main type of cloud computing services models that you can select based on the level of control, flexibility and

management own business needs:-

- **Infrastructure as a service(IaaS):** Infrastructure as a service(IaaS) offers on-demand access to IT infrastructure services, including compute, storage, networking, and virtualization. It provides the highest level of control own IT resources and most closely resembles traditional on-premises It resources.
- **Platform as a service(PaaS) :** Platforms as a service(PaaS) offers all the hardware and software resources needed for cloud application development. With PaaS, companies can focus fully on application development without the burden of managing and maintaining the underlying infrastructure.
- **Software as a service (SaaS):** Software as a Service delivers a full application stack as a service, from underlying infrastructure to maintenance and updates to the app software itself. A SaaS solution is often an end-user application, where both the service and the infrastructure is managed and maintained by the cloud service provider.

LITERATURE REVIEW

AWS (Amazon Web Service)

Amazon Web Service (AWS) is a cloud computing platform that offers a variety of products. These products include: Compute, Storage, Database, Analytics, Networking, Mobile, Developer tools, Management tools, IOT, Security. AWS also offers enterprise applications. These products are available on-demand, with pay-as-you-go pricing. AWS was founded in March 2006 by Amazon. The CEO of is Adam Selisky. AWS has revenue of \$80,000,000,000.

Some of the products launched at AWS Invent2023 Include:

- I. Amazon Q AI-powered assistant
- II. New thin-client hardware

III. Graciton4 chip

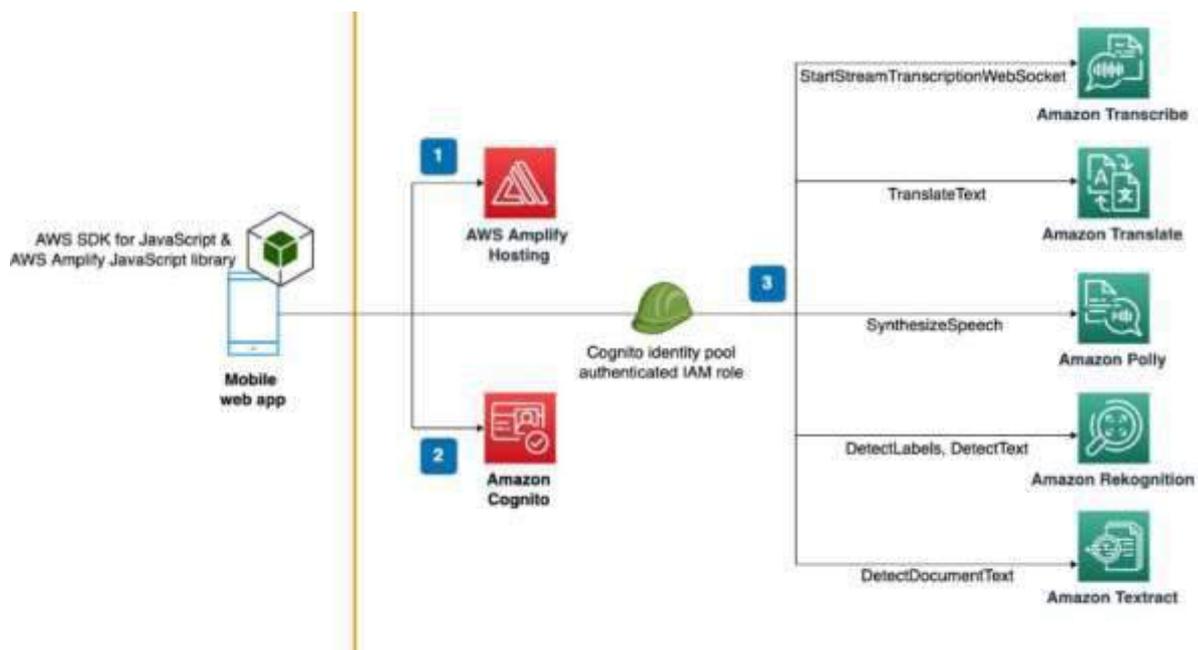
AWS does not require coding knowledge. Many simple operations can be accomplished without coding. AWS is good choice for beginners who want to start a career in technical background. AWS is a cloud compiler provider. AWS provides the required resources. The customer must pay for the services they use regularly. AWS provides flexibility depending on the number of services the customer needs.

Security of cloud is the responsibility of AWS but Security in the cloud is Customer's Responsibility. The Performance efficiency in the cloud has four main areas:

- i. Selection
- ii. Review
- iii. Monitoring
- iv. Tradeoff

Accessibility:- In these refers to the design and implementation of features and services that ensure people with disabilities can access and use AWS products and resources.

- **AWS AI and ML services:** Create an Amazon Cognito user pool and identity pool. Grant permissions to access AWS AI services. Clone the GitHub repository and edit the configuration file. Deploy the mobile web app to the AWS Amplify console.
- **Performance Dashboard on AWS:** This open source solution helps organizations build, deploy, and maintain customizable dashboards.
- **Service accessibility:** Identify the sources of traffic for services. Identify a highly available external DNS provider for internet services. Identify load balancers for internet or private network traffic.
- **Amazon EFS file system:** Create mount targets in a VPC for your file system. Use those mount targets to provide access to the file system.
- **Amazon Cognito:** Add user login and access control features to web applications and mobile apps.
- **Voluntary Product Accessibility Template (VPAT):** Available to customers using AWS Artifact.



COMPARISON BETWEEN AWS AND OTHER CLOUD COMPUTING PLATFORM

AWS, Azure and GCP are all well-known cloud providers. They have some similarities and differences:

- **Storage:** All three offer fast SSDs, cheaper hard drives, and multiple archiving options. They also offer object, file, persistent block, and other types of cloud storage.
- **Billing:** AWS and Azure offer pay-as-minute billing, while GCP offers pay-per-second billing.
- **Services:** AWS offers a wide range of services. Azure focuses on building and deploying applications. GCP offers data management and machine learning.

- **Integration:** Azure integrates well with other services.
- **Security:** Azure offers better security.
- **Data Backup:** Azure offers a data backup service.
- **Regions:** AWS has 25 geographic regions with 81 availability zones.
- **Products:** GCP allows users to use Google products like Gmail, YouTube, and Google search.



	Basis	GCP	Azure	AWS
• Time Spent		12 (2008)	16 (2010)	16 (2004)
• Availability		24 geographic regions around the globe	60 geographic regions around the globe	24 geographic regions around the globe
• Compute Services		Compute Engine	Virtual Machine	Elastic Compute Cloud (EC2)
• Networking		Cloud Virtual Network	Virtual Network (VNET)	Virtual Private Cloud (VPC)
• Add Text Here		Add Text Here	Add Text Here	Add Text Here

USECASE

Amazon Web Services (AWS) offers a wide range of cloud computing services that cater to various use cases across different industries. These are some common use for AWS cloud computing:

- Scalable Web Applications:** AWS provides scalable infrastructure to host web applications, allowing businesses to scale resources up or down based on demand. Services like Amazon EC2, Amazon S3, and Amazon RDS are commonly used for web application hosting.
- Data Storage and Backup:** AWS offers reliable and scalable storage solutions such as Amazon S3 for object storage and Amazon Glacier for long-term archival. These services are used for storing and backing up data, providing high durability and availability.
- Big Data Analytics:** AWS provides services like Amazon EMR, Amazon Redshift, and Amazon Athena for processing and analyzing large datasets. These services are commonly used for big data analytics, data warehousing, and business intelligence applications.
- Content Delivery:** Amazon Cloud Front is a content delivery network (CDN) service that helps deliver content, including images, videos, and web pages, with low latency and high data transfer speeds. This is useful for improving the performance of websites and applications.
- Internet of Things (IoT):** AWS IoT services enable the connection, management, and analysis of IoT devices. This is useful for industries such as manufacturing, healthcare, and smart cities that rely on IoT devices for data collection and automation.
- Machine Learning and Artificial Intelligence:** AWS offers a range of machine learning services, such as Amazon Sage Maker, for building, training, and

deploying machine learning models. These services are used for various applications, including image recognition, natural language processing, and predictive analytics.

- Enterprise IT:** Many organizations use AWS for their overall IT infrastructure, including virtual servers (EC2), storage (S3), databases (RDS), and networking (VPC). This allows businesses to move their on-premises workloads to the cloud, reducing the need for physical hardware and improving flexibility.
- DevOps and Continuous Integration/Continuous Deployment (CI/CD):** AWS provides tools and services for Dev Ops practices, including AWS Code Pipeline, AWS Code Build, and AWS Code Deploy. These services facilitate the automation of software development, testing, and deployment processes.
- Security and Compliance:** AWS provides a secure and compliant infrastructure, allowing businesses to build applications and store data in a secure environment. AWS Identity and Access Management (IAM), AWS Key Management Service (KMS), and AWS CloudTrail are examples of services that enhance security and compliance.

Use of AWS Platform

- Netflix (Media Streaming):** Netflix relies heavily on AWS for its streaming services. AWS provides the scalability and reliability required to handle the vast amount of streaming data and user requests.
- Airbnb (Hospitality Services):** Airbnb uses AWS to host and scale its online platform. AWS services such as Amazon EC2, Amazon RDS, and Amazon S3 help Airbnb manage its website, handle bookings, and store large amounts of data.



3. **Slack (Collaboration and Messaging):** Slack, a popular team collaboration platform, uses AWS for its infrastructure. AWS helps Slack deliver real-time messaging, file sharing, and collaboration features to millions of users.
4. **Pinterest (Social Media):** Pinterest utilizes AWS for hosting its social media platform. AWS services enable Pinterest to handle image storage, content delivery, and scalability to meet the demands of its user base.
5. **NASA/JPL Mars Rover (Space Exploration):** NASA's Jet Propulsion Laboratory (JPL) uses AWS for its Mars Rover missions. AWS helps process and analyze the vast amount of data transmitted by the rovers on Mars.
6. **Capital One (Finance and Banking):** Capital One uses AWS for various financial services, including online banking and mobile applications. AWS provides the security and compliance features required for the finance industry.
7. **Expedia (Travel and E-commerce):** Expedia, an online travel agency, utilizes AWS for its platform. AWS services help Expedia manage reservations, process transactions, and provide a seamless booking experience for travelers.
8. **Adobe (Creative Software):** Adobe Creative Cloud relies on AWS for its cloud services. AWS infrastructure supports the delivery of Adobe's creative software applications, file storage, and collaboration features for creative professionals.

remain available even in the face of hardware failures or other issues.

7. **Ecosystem and Integration:** AWS has a vast ecosystem of partners, third-party tools, and integrations. This makes it easier for businesses to connect their existing systems and tools with AWS services.
8. **DevOps and Automation:** AWS provides tools and services that support DevOps practices and automation. This allows organizations to automate processes, streamline development workflows, and achieve faster time-to-market for their applications.
9. **Community and Support:** AWS has a large and active user community. Users can access extensive documentation, forums, and support resources to get assistance and share knowledge.

CONCLUSION

1. **Versatility and Scalability:** AWS provides a wide range of cloud computing services, enabling businesses to build scalable and flexible applications. Its services cover computing power, storage, databases, machine learning, analytics, and more.
2. **Global Reach:** AWS has a global infrastructure with data centers located in multiple regions worldwide. This allows businesses to deploy applications and services close to their end-users, improving latency and providing a better user experience.
3. **Cost-Efficiency:** AWS follows a pay-as-you-go pricing model, allowing users to pay only for the resources they consume. This cost-effective approach is beneficial for businesses of all sizes, as it eliminates the need for upfront capital investment in hardware.
4. **Security and Compliance:** AWS places a strong emphasis on security, providing a secure and compliant cloud infrastructure. It offers tools and features such as identity and access management, encryption, and compliance certifications to help businesses meet their security requirements.
5. **Innovation and Pace of Development:** AWS continuously introduces new services and features, fostering innovation for businesses. This rapid pace of development allows organizations to stay ahead in the rapidly evolving technological landscape.
6. **Reliability and High Availability:** AWS infrastructure is designed for high availability and fault tolerance. Services like Amazon S3 and Amazon EC2 are known for their reliability, ensuring that applications hosted on AWS

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A STUDY OF THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND INTERNET ADDICTION AMONG HIGH SCHOOL STUDENTS IN CALICUT CITY, KERALA, INDIA

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ABSTRACT

Internet use has become a crucial aspect of high school students' everyday life in today's digital world. Despite all of the benefits it provides, there are risks that using the internet might foster compulsive habits. This research highlights the intricate relationship between personality traits and internet addiction among high school students studying in Calicut City in Kerala, India. The researchers examined personality traits and evaluated levels of internet addiction using standardized psychometric testing on a sample of 30 students. The Big Five Personality Questionnaire which includes extraversion, openness to experience, conscientiousness, agreeableness, neuroticism, and Young's Internet Addiction Test has been used in this study.

The study emphasizes the absence of any significant relationship between personality characteristics and internet addiction. All traits were negatively related, with one exception of the trait extraversion.

The unique aspect of this study is the way it analyses personality characteristics and online addiction, particularly among high school students. The analysis offers important insights and improves our understanding of the relationship between personality traits and internet addiction.

Paper Type: Empirical Research.

KEYWORDS: Personality traits, Internet Addiction, Personality and Addiction, Risk factors

1. INTRODUCTION

In the digital age, the ubiquitous presence of the internet has revolutionized various aspects of daily life, offering unparalleled access to information, communication, and entertainment. Particularly, high school students, being digital natives, are deeply immersed in the online realm. While the internet provides numerous benefits, concerns have arisen about its potential to lead to addictive behaviours, particularly among the youth. Shaw.M, et.al.(2008)[1]. A fascination with computers and the internet, that is excessive or uncontrolled, along with compulsive or distressing behaviours, is a sign of internet addiction. Internet addiction is a burgeoning area of research that pertains to a behavioural pattern characterized by excessive and compulsive internet use, often leading to detrimental consequences in various domains of an individual's life. These consequences may encompass academic underachievement, compromised interpersonal relationships, and adverse mental and emotional well-being effects. In the modern context, recognizing the elements that lead to the development and continual growth of internet addiction is crucial. Drug addiction used to be referred to as "addiction" in

some situations. A compulsive demand for and use of substances that result in addictive habits, tolerance, and unique psychological symptoms after discontinuation of usage are the characteristics of addiction, according to Webster's Dictionary. Young KS. (1998)[2].

The significant topic that has drawn attention in the study of internet addiction is personality traits. The association between personality features and internet addiction is complex in today's digital world and is quickly growing as a subject of study. Personality traits comprise various attributes, such as agreeableness, conscientiousness, extraversion, openness to experience, and neuroticism. M.Hosťovecký, et.al(2018)[3]. When it comes to personality qualities like agreeableness, neuroticism, and conscientiousness, those with internet addictions differ greatly from those without them. People with addictions are more easily affected by unpleasant emotions and uncomfortable circumstances, which may be a sign of increased neuroticism. Rachubińska, et.al,(2021)[4]



2. REVIEW OF LITERATURE

Many studies have been conducted regarding the correlation between personality traits and internet addiction among adolescents. For instance, a study was conducted on 'Psychiatric Features of Individuals with Problematic Internet Use' by Shapira NA et al. (2000) [5]. Their study revealed that the problematic internet use of every individual satisfied DSM-IV criteria for an impulsive control disorder. Despite their problematic internet use, all 20 subjects had at least one lifetime bipolar disorder diagnosis. Another research on 'Shyness and Locus of Control as Predictors of Internet Addiction and Internet Use' was conducted by Chak. et al. (2004) [6]. Personality traits and online dependence were studied in 722 respondents, 36 percent of whom were men. The so-called "Net Generation" comprised more than 78% of them, with ages ranging from 12 to 26. Those who were born between 1977 and 1997 are referred to as "Net Generation" members. Merely 106 out of 722 individuals obtained a score of five or higher on the internet addiction scale. Regarding internet use, addicts log on an average of 1.08 extra days per week and 0.64 extra hours per session than non-addicts.

Xueping et al. (2008) [7] conducted a study on 'Increased Regional Homogeneity in Internet Addiction Disorder: A Resting-State Functional Magnetic Resonance Imaging Study' among 5135 Chinese teenagers. The findings revealed that 8.78% of the teenagers had an internet addiction, and 94.32% of the teenagers used the internet. Compared to girls and junior middle school students, boys and senior middle school students were more likely to be internet addicts. Another research was conducted by Regina J. J. M. et al. (2008) [8]. The results of their research on 'Online Communication, Compulsive Internet Use, and Psychosocial Well-being among Adolescents: A Longitudinal Study' indicate that adolescents who use messaging platforms excessively seem to have more significant depression symptoms. A descriptive correlational study was conducted by Bibi Eshrat et al. (2010) [9]. In their study on 'Internet Addiction Based on Personality Characteristics of High School Students in Kerman, Iran,' five hundred and thirty-eight male and female students enrolled in Kerman's second grade of high school. They discovered that emotionally sensitive students are less likely to use the internet excessively and compulsively in response to unfavorable emotions when faced with challenges. Ebru Ozturk et al. (2011) [10] in their study on 'An Investigation of the Problematic Internet Use of Teacher Candidates Based on Personality Types, Shyness, and Demographic Factors' indicates that men are more vulnerable than women to developing an online addiction and they also found out that, there was a strong link between neuroticism, shyness, lying, and internet addiction.

Kuss et al. (2011) [11] conducted a study on 'Internet Addiction in Adolescents: Prevalence and Risk Factors', and the results indicated that social media and online gaming usage raised the risk of internet addiction, but among those with significant use of the internet, extraversion and

conscientiousness appeared to be protective characteristics. Another study conducted by Odaci et al. (2013) [12] on 'Who are Problematic Internet Users? An Investigation of the Correlations Between Problematic Internet Use and Shyness, Loneliness, Narcissism, Aggression, and Self Perception', indicated that problematic internet use is associated with shyness and hostility. For this reason, psycho-educational and international programs should consider this to better educate future undergraduates. Additionally, it will help those with narcissistic personality traits, shyness, and self-perception. In a study 'Personality, Internet Addiction, and Other Technological Addictions: A Psychological Examination of Personality Traits and Technological Addictions,' by Zaheer Hussain et al. (2013) [13] their findings indicated that certain personality types may increase an individual's risk of developing a technological addiction. Conscientiousness, agreeableness, neuroticism, extraversion, and openness to experience, for example, have been found to explain between 6% and 17% of the variance in many types of technological addictions, including addictions to facebook, video games, and the internet, as well as mobile devices.

Sun-Mi Cho, et al. (2013) [14] in a study titled, 'Does Psychopathology in Childhood Predict Internet Addiction in Male Participants?'. They found that 3.6% of the adolescents in their study, which took place in a middle school in Korea, were internet addicts and that there was a strong correlation between withdrawal, anxiety, or hopelessness and the eventual emergence of internet addiction.

Tokunaga, R.S. (2014) [15] in his study on 'A Unique Problem or The Manifestation of A Pre-existing Disorder? The Mediating Role of Problematic Internet Use in the Relationship between Psychosocial Pre-existing Problems and Functional Impairment', found that obsessive internet use is one of the mediation pathways between psycho-social issues and functional impairment. Candan Oztürk et al. (2015) [16] in their research on 'Analysis of the Relationship between Personality Traits and Internet Addiction' among 328 teenagers in two senior high schools in a provincial centre in Western Turkey, found how adolescent personality traits were related to the chance of internet addiction. Adolescents who were open to new experiences had a 1.79-fold increased risk of addiction. Although the fact that internet usage is rising significantly nowadays, they advise preventive actions to shield adolescents from online addiction, especially those who are open to new experiences. Aboujaoude, E. (2017) [17] in his research, 'The Internet's Effect on Personality Traits: An Important Casualty of the "Internet Addiction" Paradigm', gives a narrative assessment of the literature, highlighting how studies on internet users have demonstrated the harmful impacts of the internet on personality traits. Some of the behavioural characteristics that seem to be encouraged by the internet and may have unfavourable offline effects are impulsivity, narcissism, and aggression.



Robert S.Tokunaga(2017)[18]conducted another study on ‘AMeta-Analysis of the Relationships between Psychosocial Problems and Internet Habits: Synthesizing Internet Addiction, Problematic Internet Use, and Deficient Self-Regulation Research’. His findings of cumulative correlations showed that internet usage was independently associated with feelings of loneliness and despair. Emma Louise Andersona,et.al (2017)[19] studied ‘Internet Use and Problematic Internet Use: A Systematic Review of Longitudinal Research Trends in Adolescence and EmergentAdulthood’ and find out that personality traits show a clear and significant connection with adult problematic internet use. Furthermore, they suggest that more research on contextual and activity-related characteristics is required for a deeper comprehension of young people’s internet usage and problematic internet usage behaviours. Another research conducted by M.Hosťovecký et.al (2018)[3] in their study on ‘The Relationship between Internet Addiction and Personality Traits in Slovak Secondary Schools Students’ set out to find out how common dependence on the web was, among 707 secondary school students in Slovak secondary schools. and their findings also showed that students who are more conscientious than less conscientious will have a lower rate of internet addiction; students who are more neurotic than less neurotic will have a higher risk of internet addiction; and students who exhibit more open behaviour will have a lower rate of internet addiction than students who exhibit more closed behaviour.

The study, titled ‘Personality Traits, Strategies for Coping with Stress and the Level of Internet Addiction—A Study of Polish Secondary-School Students’ conducted by Joanna Chwaszcz et.al,(2018)[20]which included 383 secondary school students ages 15 to 19 , the researchers found a relationship between particular personality traits and coping mechanisms and media addiction. The personality traits most closely linked to problematic internet use were emotional stability and consciousness.

3. PROBLEM

To study the relationship between personality traits and internet addiction among high school students in Calicut City, Kerala, India.

4. OBJECTIVES

The objectives of this study are:

- 1) To find out the level of internet addiction among high school students.
- 2) To examine the relationship between internet addiction and personality traits.
- 3) To assess the amount of time high school students spend surfing the internet, and the probability that they may develop internet addiction.

5. HYPOTHESES

The null hypothesis has been used to examine the relationship between the variables.

1. There is no difference in the levels of internet addiction between males and females.
2. There is no significant relationship between personality traits and internet addiction.

6. METHODOLOGY

Sample: The sample consisted of 30 high school students who used the internet for non-academic purposes for more than three hours a day. High school students in this study are students who were in the VIII, IX, and X standards of a private school in Calicut City in Kerala, India. The students were selected based on incidental sampling.

Procedure: The data was collected in the classroom at the end of the teaching-learning session when students were explained the purpose of the study. Participation was voluntary and their consent to be part of the study was obtained. Confidentiality was assured. A semi-structured schedule was distributed to students to record the socio-demographic profile of students. Following this, the students were made to respond to the Big Five Inventory and Young's Internet Addiction Test (IAT).

Test Used For Assessment: The BFI, or Big Five Inventory is a self-report questionnaire with 44 items in total. The test measures the prevalence of the following personality traits –openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The Italian translation of the Big Five Inventory (BFI) was evaluated for internal consistency reliability, factor structure, and convergent-discriminant validity in two separate samples of nonclinical adult respondents. Data on the reliability of the 2-month retest were provided by John, O. P., & Srivastava. S(1999)[21]. The higher scores on this test indicate the greater prevalence of the concerned personality traits.

Dr. Kimberly Young's Internet Addiction Test (IAT) is a valid and reliable tool for assessing addictive online use. It consists of 20 items measuring three different levels of internet addiction: mild, moderate, and severe. The reliability of Young's Internet Addiction Test yielded an overall Cronbach's of 0.889 in a meta-analysis of eleven studies. Young's Internet Addiction Test is a valid test with adequate psychometric qualities and a trustworthy instrument that can be used for psychological and psychiatric research to screen both casual online users and internet addicts[22].



7. ANALYSIS OF RESULTS

Table1- Levels and Percentage of Internet Addiction

Students	N	Normal Level	Percentage	Mild Level	Percentage	Moderate Level	Percentage	Sever Level	Percentage
MALE	15	0	0	0	0	8	53	7	47
FEMALE	15	0	0	0	0	11	73	4	27
TOTAL	30	0	0	0	0	19	63	11	37

Table 1 shows the levels as well as the percentage of internet addiction in both male and female students. Out of the 30 students, 63% had moderate internet addiction and 37% had severe internet addiction.

In particular, 53% of male students displayed moderate addiction to the internet and 47% showed severe internet addiction. Of the female participants, 27% were classified as severely addicted to the internet, while 73% showed signs of moderate internet addiction. Remarkably, not a single person showed signs of normal levels of internet addiction. This data shows that internet addiction was highly prevalent in the participant group and that almost all of them had moderate to severe levels of addiction to the internet. The fact that no mild or non-addictive tendencies were seen in any of the subjects indicates students cannot function and spend time without the use of the internet. These results disprove the Null Hypothesis 1.

Table 2-The Pearson's Correlation Coefficient of Personality Traits and Internet Addiction

Personality traits	Pearson's r with IAT score
Extraversion	0.23
Agreeableness	-0.11
Conscientiousness	-0.23
Neuroticism	-0.22
Openness to experience	-0.14

The Pearson's correlation coefficient between personality traits and internet addiction is displayed in Table 2. The personality traits of extraversion and internet addiction have a r of 0.23. The association between these two variables is weak, even though the result formally demonstrates a positive correlation. Therefore extraversion cannot be considered as a personality trait to result in high levels of internet addiction. The results indicate that there is a low negative correlation of -0.11 between agreeableness and internet addiction.

It becomes apparent that conscientiousness and internet addiction are also negatively correlated with an r of 0.23. Neuroticism and internet addiction are also negatively correlated with a r of -0.22 .

The r for openness to experience and internet addiction is -0.14 . The current study demonstrated no statistically

significant relationship between personality traits and internet addiction. All personality traits are negatively correlated except extraversion (0.23), where there was a slight positive correlation. Agreeableness, conscientiousness, neuroticism, and openness to experience show that these traits are inversely related to internet addiction although the results are not significantly high. Therefore the results indicated in Table 2 do not prove the hypothesis as there is a low correlation between all the personality traits and internet addiction.

The Null Hypothesis 2 is rejected.

8. DISCUSSION

This investigation aimed to find the correlation between personality traits and internet addiction. Seventy-three percent of female students demonstrated moderate addiction, and 27% were severely addicted. Whereas the percentage of addiction among male students was 53% and 47% for moderate and severe addiction respectively. The studies of Chou, et al. (2000), [23], Morahan- Martin, et al. (2000) [24], revealed that males are more prone to internet addiction than females. The present study also confirms these findings. The present study does not find any statistically significant correlation between agreeableness, conscientiousness, neuroticism, as well as to experience, and internet addiction, in contrast to many studies cited in this study's review of the literature.

Some studies, however, show that males and females experience different levels of internet addiction because of things like the activities they want to do online, coping strategies, and social expectations. According to certain research, boys are more likely than girls to play games or gamble online, which may lead to a higher prevalence of addiction as indicated in this study. However, given their preference for social networking and shopping, women are more susceptible to developing an addiction to these online activities.

In this study, interestingly, no participant's degree of internet addiction was classified as normal or mild. Therefore the results disprove the null hypothesis that there is no difference in the levels of internet addiction among male and female students.

Highly extroverted people may become addicted to using the internet because they have a great need for excitement and



interaction with other people. Their compulsive need for ongoing connection may be satisfied by their excessive use of social media, regular participation in online discussions, or participation in a variety of online activities. For introverted people, internet addiction may result from using the internet as their main social media platform and taking solace in the privacy and lower social pressure of online contact. There is a connection between a higher risk of internet addiction high neuroticism and low conscientiousness. While higher neuroticism may result in a greater sensitivity to stress and a reliance on the internet for coping techniques, lower conscientiousness individuals may find it difficult to self-regulate their online activity. But it's important to take into account a variety of factors, including social and environmental effects, that go beyond personality features and can lead to internet addiction. An increased risk of internet addiction could result from having a high degree of experience, as it could arouse curiosity about a variety of online activities and information.

There are other possible variables than personality traits that could affect internet addiction. According to Habib Ullah Khan et al. (2017)[25] factors such as social, psychological, environmental, and cognitive aspects, also have an impact on internet addiction. Overuse of the internet is encouraged by easy access to it via a variety of devices. In addition, social variables including social isolation, loneliness, or a lack of offline social relationships may encourage people to look for social engagement online excessively. Several psychological factors might contribute to excessive internet use. Mental health conditions such as sadness, anxiety, or stress can cause people to turn to the internet for entertainment or consolation. Through social media like, winning at online games, or information discovery, the internet offers quick satisfaction and rewards. This can cause compulsive behaviours to get reinforced. The idea that online activities are more rewarding than in-person interactions can be reinforced by cognitive biases such as excessive gaming, social media use, or checking alerts often. These biases can distort perceptions and promote addictive behaviours. Internet addiction can also result from familial and social circumstances, such as unhealthy family dynamics, inadequate parental monitoring, peer pressure, or social isolation.

In light of the study's findings, which did not reveal a substantial correlation between personality traits and internet addiction, the following corrective suggestions for internet addiction are recommended:

1. It would be advantageous to implement universal intervention strategies. These can be informational
2. campaigns, seminars, or workshops to educate people about responsible internet use and the potential hazards of engaging in excessive online activity.
3. Prioritise behavioural modification strategies that are characteristics. To cut down on the amount of time spent online overall, encourage people to create internet-free zones, set time limits, and participate in other offline activities.

4. Promote non-personality-dependent stress-reduction methods and mindfulness-based practices. Engaging in mindfulness activities can assist people in improving their self-regulation skills and improving their consciousness about their online behaviour.
5. Highlight the value of forming close relationships, and bonds with family, and joining neighbourhood organizations to lessen reliance on online contacts.
6. A guide for developing positive screen habits that suit all personality types can be provided, emphasizing moderation in usage, meaningful online pursuits, and abstaining from obsessive or excessive activities

9. LIMITATIONS OF THE STUDY

A few limitations of the current study need to be taken into account. A small sample of participants in the study may limit or influence the findings of the study. Therefore it becomes difficult to generalize the findings of this study to all student populations in India. The assessment may have been more effective if the tests used were in the vernacular language which is Malayalam for this sample. Furthermore, response bias or social desirability bias could have been introduced when using self-reported measures to evaluate internet addiction.

10. CONCLUSIONS

1. Males are more prone to internet addiction than females therefore the null hypothesis has been disproved
2. There is no significant correlation between personality traits and internet addiction thus the study does not support the null hypothesis
3. The researcher found that the larger sample size can provide a more accurate value of the true relationship between personality traits and internet addiction

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CONCEPT OF MANASIKA PRAKRITI: AN INSIGHT TO MENTAL CONSTITUTION

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ABSTRACT

Prakriti is one of the important parameters which is to be assessed before diagnosing and prescribing medicines. It is the inherent quality of a person; it refers to the physical & mental composition of individual. Prakriti is of two types, Shareerika (Dosha) and Manasika (Guna). Shareerika Prakriti is the predominant Dosha in a non-pathogenic state formed during conception. Satva, Raja and Tama are the three attributes which will also get intensified at that time and there by forming the Manasika Prakriti, exhibiting the psychic function of individual. These Trigunas are important impulses of the mind which distinguish individuals according to their psychological constitution. The three types of psyches are explained to be born from virtue, anger and delusion, and are considered superior, medium and inferior respectively. Depending on the predominance of the three Gunas, psychological characters are determined. Seven, Six and three respectively are the types of these psyche. Totally 16 types of Manasika Prakriti are described in Charaka and Sushruta Samhita. To plan the treatment, diet, therapeutics and sleep regimen, knowledge of this is necessary.

KEY WORDS – Manasika Prakriti, Prakriti, Satvika, Rajasika, Tamasika

INTRODUCTION

Shareera is made of Doshas, Dhatus, Mala, Indriya, Upadhatu and Agni etc. balance and imbalance of these components causes health and diseases respectively. For diagnosis and treatment, knowledge of Prakriti, Vikriti, Sara, Samhanana, Satmya, Agni, Bala, Desha, Pramana, Vaya, Ritu, Satwa etc is required¹. Prakriti is one of the essential components, which is used extensively in physiology, pathology, diagnosis, and treatment. The word Prakriti means original or nature character or constitution. It refers to one's own constitution, which is individual specific and controlled by its own physiology². It is determined at the fertilization time by various factors such as the sperm and ovum, season and state of the uterus, diet and routines of the mother, properties of Maha Bhutas comprising the foetus. The dominant Doshas in the sperm and ovum during the conception and also those residing the uterus at that time establish the Prakriti of individual³.

CLASSIFICATION OF PRAKRITI

Prakriti is mainly of two types, Shareerika (physical constitution) and Manasika (psychic constitution).

Shareerika Prakriti is due to the dominance of Shareerika Doshas and further divided into seven types. They are Vataja, Pittaja, Kaphaja, Vata-pittaja, Vata-kaphaja, Pittakaphaja and Sannipataja⁴.

Manasika Prakriti is mainly of three types Satvika, Rajasika and Tamasika. Acharya Charaka and Sushruta subdivided Manasika Prakriti into 16 types- seven, six and three respectively^{5,6}. Ashtanga Sangraha classifies it into seven types like that of the Shareerika Prakriti⁷. It is also known as Mahaprakriti and Guna Prakriti as Trigunas are also called Mahagunas.

Types of Manasika Prakriti

Acharya Charaka and Sushruta subdivided Manasika Prakriti into 16 types. Sushruta Samhita mentions the word Kaya for Manasika Prakriti, while Charaka Samhita mentions different categories as Satva. The nomenclature was done based on similarities in qualities to that of almighty god .

Table no. 1 showing classification of Manasika Prakriti

Satvika (7)	Rajasika (6)	Tamasika (3)
Brahma	Asura	Pashava
Arsha	Rakshasa	Matsya
Aindra	Paishacha	Vanaspatya
Yamya	Sarpa	
Varuna	Praita	
Kauberia	Shakuna	
Gandharva		

Satvika prakriti⁸

Brahma Satva shares the traits of Brahma and the qualities are-purity, love for truth, self-controlled, power of discrimination, material and spiritual knowledge, power of exposition, reply and memory, favourable disposition equally for all creatures, freedom from passion, rage, greed, pride, ignorance, grief. Arsha Satva resembling the traits of Rishis, with qualities like hospitality, observance of rituals, sacred vows, celibacy, good understanding and retention, devoid of pride, wildness, hatred and greed. Aindra Satva characteristics include prosperity, worshiper of God, brave, good advisor, lordship. Yamya Satva shares the traits of Yama, qualities such as understanding of good and bad deeds, follows accordingly, alert, strong memory, prosperity. Varuna Satva -sharing the traits of Varuna like bravery, patience, purity and dislike for impurity observance of religious rites fondness for aquatic sports aversion for mean-



acts exhibition of anger and pleasure in proper place. *Kaubera Satva* -sharing the traits of *Kubera* such as possession of station, honour, luxuries, attendants liking for virtuous acts, wealth and satisfaction of desires purity liking for pleasures of recreation. *Gandharva Satva* - resembling the traits of *Gandharva* with attributes such as liking for dance, music, praise, recitation of verses, stories, history, epics, fondness for scents, garlands, association of females and passion love for wondering. *Satva* is considered blemish less and healthy and leads to attainment of knowledge and happiness, *Satvika Prakriti* leads to actions performed with selfless noble motives, which are not egoistic, performed with firmness and enthusiasm.

Rajasika Prakriti⁹

Asura Satva -sharing the traits of *Asura*, having features like bravery, cruelty, envy, deceitful, terrifying appearance ruthlessness indulge in self-praise. *Rakshasa Satva* possessing qualities of *Rakshasa* like intolerance, constant anger, cruelty, fondness for non-veg food excessive sleep envious disposition, cruelty. *Paishacha Satva* resembling the features of *Paishacha* greedy habits, fondness for women, cowardice and terrifying disposition, resorting to abnormal food habits and regimens. *Sarpa Satva* having traits of *Sarpa*- brave when wrathful and cowardice otherwise, excessive indolence, walking, hasty in eating food, double dealing. *Praita Satva* shares the features of *Praita*, excessive craving for food, enviousness, too much mournful, no discrimination in behaviour, excessive greediness. *Shakuna Satva* shares the attributes of *Shakuni* bird, affection for passion, excessive food and regime fondness, unsteadiness and ruthlessness.

Rajas give rise to passion and the origin of feeling of longing, restlessness and attachment. It leads one to attachment with action and action is performed for specific effects and pretentiously. *Rajasika* actions are driven by strong passion to see results; person is swayed intensely by joy or sorrow depending on the result of action.

Tamasika Prakriti¹⁰

Pashava Satva identical to the traits of *Pashu* cowards, unintelligent, hateful conduct and food habits, excessive sexual indulgence and sleep. *Matsya Satva* similar to qualities of Fish such as greed for food, unintelligent, unsteadiness, cowardice, passionate and wrathful, fondness for water and always moving. *Vanaspatya Satva* possessing the traits of vegetable life like indolence, excessive food, lack of the intellectual faculties.

Tamas gives rise to indolence, inertia and sleep. It gives rise to heedlessness and delusion, action performed in lackadaisical manner without sincerity of purpose and devotion.

Among all these, *Satvika* type of *Prakriti* is best because of dominance of *Sattva* which is acknowledged for purity, is unlikely to vitiate or get vitiated. *Rajas* and *Tamas* are regarded as *Manasa Doshas* in *Ayurveda*. So, *Rajasika* and *Tamasika Prakriti* persons are more predisposed to various disorders and hard to treat when compared to *Satvika Prakriti*. It shows power of mind, which in turn regulate the body due to its association with *Atma*. Treatment protocols rely upon mental personality of person as *Rajasika* and *Tamasika Prakriti* persons usually do

not follow promptness and obedience in comparison to *Satvika Prakriti*. Also, *Rajasika* and *Tamasika Prakriti* persons have low tolerance to painful condition. So, prognosis is influenced by the type of *Manasika Prakriti* that an individual possesses. Hence, identifying one's *Manasika Prakriti* is crucial to adopt diet and lifestyle routines as well as to plan appropriate therapeutic interventions.

DISCUSSION

Different kinds of *Manasika Prakriti* can be regarded as different stages of life. If observed keenly, it also shows the chronology of evolution because all the traits are arranged in a systematic manner starting from *Brahma* to *Vanaspatya*. Some authors have depicted *Manasika Prakriti* as an organized developmental stage of the individual¹¹.

Understanding ones *Manasika Prakriti* can aid in both personal and professional growth. For instance, *Rajasika Prakriti* person can channel their energy into ambitious pursuits, while a *Satvika Prakriti* person can focus on spiritual growth. As *Satva* dominant person tends to possess qualities such as clarity, balance, wisdom, and a calm demeanour, they might excel in roles which require introspection, creative thinking, and a holistic perspective, such as in fields related to arts, literature, or spiritual guidance. Individuals with a dominant *Rajas* constitution exhibit quality of energy, ambition, dynamism, and an inherent drive for achievement. Such individuals can handle fast-paced environments, leadership roles, and careers which demand quick decision-making and adaptability. Fields like entrepreneurship, sales, and management could align well with their natural tendencies. Meanwhile *Tamas*-dominant *Prakriti* persons often exhibit qualities of stability, endurance, introversion and patience. They might excel in roles requiring attention to detail, methodical processes, and a consistent work ethic. Professions in research, administration, and technical fields could be suitable for individuals with this constitution.

CONCLUSION

Prakriti determination is significant for both individuals in a state of health and illness. By knowing and understanding individual's nature and constitution, the physician can advise appropriate food, drink, exercise which will aid in maintaining health and curing the diseased condition. While the *Shareerika Prakriti* involves bodily features, *Manasika Prakriti* is a very essential tool in psychometric analysis. It helps in comprehending the individuals mind set. The thought, actions and psyche of a person are based on three *Gunas* and the analysis of these three *Gunas* in an individual helps in better psychological assessment. These *Gunas* determine the *Manasika Prakriti* of person. Knowledge of one's *Manasika Prakriti* can aid in personal and professional development. treatment, diet and other regimens are also planned accordingly.

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FORMATION OF COMMUNICATIVE GRAMMATICAL COMPETENCE OF B1 LEVEL ENGLISH LANGUAGE STUDENTS OF THE REPUBLIC OF KARAKALPAKSTAN

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ABSTRACT

This article describes the process of developing communicative grammatical competence in the English language among students at the B1 proficiency level in the Republic of Karakalpakstan. As language proficiency is crucial for effective communication, understanding the specific challenges and strategies involved in acquiring grammatical competence is essential for language educators and policymakers. The article focuses on the unique linguistic and cultural context of the Republic of Karakalpakstan, considering how regional influences may impact the learning trajectory of English language students at the B1 level. Key aspects include the effectiveness of current language teaching methodologies, the role of cultural and linguistic factors in shaping grammatical competence, and the influence of socio-economic and educational backgrounds on language acquisition. The study also examines the use of technology and multimedia resources in language learning, aiming to identify innovative approaches that enhance grammatical competence among students at the B1 level.

KEY WORDS: *grammatical competence, innovative approaches, English language, acquisition, communicative, grammatical, competence.*

INTRODUCTION

Language competence, particularly in the realm of English language acquisition, is a vital skill that plays a pivotal role in the academic, professional, and social development of individuals. The acquisition of communicative grammatical competence is a multifaceted process that involves the integration of grammatical structures with effective communication skills. This research aims to explore and understand the nuances of communicative grammatical competence among students at Level B1 in the Republic of Karakalpakstan, shedding light on the challenges and opportunities encountered in the formation of this competence. Karakalpakstan, situated in the western part of Uzbekistan, is characterized by its rich cultural diversity and unique linguistic landscape. The importance of English language proficiency has been increasingly recognized in the global context, with English serving as a bridge language for international communication, trade, and academic collaboration. At Level B1, students are expected to possess an intermediate proficiency, allowing them to express themselves in familiar contexts, understand the main points of clear standard input on familiar matters, and deal with most situations likely to arise while traveling.

Despite the acknowledged significance of English language proficiency, the process of developing communicative grammatical competence at Level B1 remains a subject that requires careful examination. This research will delve into the specific challenges faced by students in Karakalpakstan at this

linguistic level and identify the factors influencing the formation of communicative grammatical competence.

The study will adopt a mixed-methods approach, incorporating both quantitative and qualitative research methodologies. Through surveys, language proficiency assessments, and interviews with students and educators, we seek to gather comprehensive data that will provide insights into the existing trends, areas of improvement, and effective strategies for enhancing communicative grammatical competence.

Ultimately, the findings of this research aim to contribute to the academic discourse on English language education, offering practical recommendations for educators, curriculum developers, and policymakers in Karakalpakstan. By understanding the dynamics of communicative grammatical competence formation, we aspire to facilitate more effective language learning strategies, thereby empowering students to navigate the challenges of a globalized world with linguistic proficiency and confidence.

LITERATURE REVIEW

Communicative grammatical competence plays a crucial role in language learning and proficiency. At the B1 level, students are expected to possess a foundation in both grammar and communication skills. This literature review explores key studies, theories, and approaches related to the formation of communicative grammatical competence among English language learners at the B1 level.



Communicative Competence: Canale and Swain's [1] model of communicative competence emphasizes the importance of grammatical competence within the broader context of language proficiency. They propose that effective communication involves grammatical knowledge, sociolinguistic competence, discourse competence, and strategic competence. This framework serves as a foundation for understanding the multifaceted nature of communicative grammatical competence.

The acquisition and development of communicative grammatical competence in the English language are crucial components of language learning, especially for students at the B1 level. B1 represents an intermediate proficiency level, where learners should be able to communicate effectively in a variety of everyday situations. This literature review explores key studies, theories, and approaches related to the formation of communicative grammatical competence among English language learners at the B1 level.

1. **Communicative Competence and Language Acquisition.** Canale and Swain [1] introduced the concept of communicative competence, emphasizing the importance of not only grammatical knowledge but also sociolinguistic, discourse, and strategic competence. This theoretical framework lays the foundation for understanding language acquisition as a holistic process.
2. **The Role of Grammar in Communicative Competence.** Ellis [3] argues that grammar is an essential component of communicative competence, providing learners with the structural foundation necessary for effective communication. This perspective underscores the significance of integrating grammatical instruction into language teaching at the B1 level.
3. **Task-Based Language Teaching (TBLT).** Willis and Willis [8] propose Task-Based Language Teaching as an effective approach for developing communicative competence. TBLT emphasizes real-world tasks that require language use, promoting the integration of grammar in meaningful contexts. This approach is particularly relevant for B1-level learners.
4. **Input Hypothesis and Form-Focused Instruction.** Krashen's Input Hypothesis [4] suggests that language acquisition occurs through exposure to comprehensible input. Schmidt [7] extends this idea by introducing form-focused instruction as a means of drawing learners' attention to grammatical structures within meaningful contexts, facilitating the development of communicative competence.
5. **Error Correction and Feedback.** Lyster and Ranta [5] explore the role of corrective feedback in language acquisition. Their research emphasizes the importance of providing learners with timely and targeted feedback on grammatical errors to enhance communicative competence. This has implications for B1-level language instruction.
6. **Technology-Assisted Language Learning (TALL).** Chapelle [2] discusses the integration of technology in language learning and its potential to enhance grammatical competence. Technology-assisted

language learning tools can provide interactive and engaging experiences for B1-level students, allowing them to practice grammar in authentic contexts.

7. **Cross-Cultural Communication and Pragmatic Competence.** Savignon [6] introduces the concept of pragmatic competence, focusing on the ability to use language appropriately in different cultural contexts. Developing pragmatic competence is essential for B1-level learners to navigate diverse communication situations.

The formation of communicative grammatical competence among English language learners at the B1 level is a multifaceted process influenced by various theoretical perspectives and teaching methodologies. Integrating grammatical instruction within a communicative framework, providing meaningful tasks, offering corrective feedback, and leveraging technology are crucial aspects of effective language teaching at this proficiency level.

METHODOLOGY.

Teaching communicative grammatical competence at the B1 level involves integrating language skills and focusing on practical communication. Here are some effective teaching methods along with references that can aid in the formation of communicative grammatical competence in English among students at the B1 level:

1. Task-Based Language Teaching (TBLT) [9];
2. Communicative Language Teaching (CLT) [10];
3. Grammar in Context [11];
4. Authentic Materials [12];
5. Use of Technology [13];
6. Focus on Form [14];
7. Interactive Language Learning [15];
8. Task-Supported Language Teaching [16];
9. Role Play and Simulation [17];
10. Peer Interaction [18].

Through this research, implications for pedagogical practices and curriculum development will be drawn, offering insights that can inform educational policies and instructional strategies in the Republic of Karakalpakstan. The findings of this study contribute to the broader understanding of language acquisition and provide a foundation for future research endeavors aimed at optimizing language education programs in diverse cultural and linguistic settings.

RESULTS AND DISCUSSION

The acquisition of communicative grammatical competence is a crucial aspect of language learning, especially at the B1 level, where students aim to achieve a moderate level of proficiency in English. This research aims to explore the factors influencing the formation of communicative grammatical competence among students at the B1 level and to identify effective strategies for enhancing this competence.

Factors Influencing Communicative Grammatical Competence at B1 Level:

1. **Input and Exposure:** Exposure to authentic English materials, such as articles, videos, and conversations, plays a pivotal role in developing communicative



grammatical competence. Immersing students in real-life language situations can enhance their understanding and usage of grammatical structures in context.

2. **Task-based Learning:** Incorporating task-based activities that require students to apply grammatical structures in meaningful communication fosters a more practical and applicable understanding. Tasks should be designed to encourage interaction and collaboration, promoting the use of grammar in authentic scenarios.
3. **Feedback and Correction:** Timely and constructive feedback is essential for the development of communicative grammatical competence. Providing students with targeted feedback on their language use, along with opportunities for self-correction, helps them internalize grammatical rules and improve accuracy.

Effective Strategies for Enhancing Communicative Grammatical Competence

1. **Integrated Skills Approach:** Integrating grammar instruction with other language skills (listening, speaking, reading, and writing) helps students see the interconnectedness of language components. This holistic approach contributes to a more comprehensive understanding of grammar in communication.
2. **Technology-Assisted Learning:** Leveraging technology, such as language learning apps, interactive software, and online platforms, can provide students with engaging and self-paced opportunities to practice and reinforce grammatical concepts in diverse contexts.

The formation of communicative grammatical competence at the B1 level involves a multifaceted approach, encompassing exposure to authentic language, task-based activities, effective feedback, integrated skills instruction, and the use of technology. By considering these factors and implementing appropriate strategies, educators can contribute significantly to the development of English language proficiency among B1-level students.

CONCLUSION

The research on the formation of communicative grammatical competence of the English language among students at level B1 has provided valuable insights into the challenges and progress associated with language acquisition at this proficiency level. The study aimed to explore the factors influencing the development of communicative grammatical competence and to identify effective strategies for enhancing language skills in students. The findings of the research highlight the significance of integrating communicative and grammatical aspects in language instruction. Students at the B1 level face challenges in effectively combining grammatical structures with communicative functions. The study underscores the importance of a balanced approach that emphasizes practical application and real-life communication to reinforce grammatical concepts. One key observation is the role of contextualized learning in facilitating the formation of

communicative grammatical competence. Language learners benefit significantly when exposed to authentic communicative situations, enabling them to apply grammatical rules in meaningful contexts. The research suggests that instructional methods that incorporate real-world scenarios and interactive activities contribute to a more holistic language learning experience. Furthermore, the study acknowledges the influence of individual differences in language learning. Learners exhibit varying learning styles, preferences, and aptitudes, which necessitates a tailored approach to instruction. Personalized strategies that address the specific needs of students can enhance the development of communicative grammatical competence. The research also emphasizes the importance of feedback and corrective measures in the language learning process. Constructive feedback, whether from instructors or peers, plays a crucial role in helping students identify and rectify grammatical errors.

Additionally, self-assessment and reflection contribute to the conscious development of communicative grammatical competence. In conclusion, the formation of communicative grammatical competence among students at level B1 requires a multifaceted approach that integrates grammar instruction with communicative language use. Contextualized learning experiences, individualized strategies, and effective feedback mechanisms contribute to a more comprehensive and successful language learning journey. As educators continue to refine and implement these approaches, they can positively impact the communicative grammatical competence of English language learners at the B1 level.

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TEACHING AND LEARNING STRATEGIES EMPLOYED DURING ENGLISH LESSONS IN SPECIAL SCHOOLS FOR THE DEAF AND THEIR IMPLICATIONS ON ACADEMIC PERFORMANCE IN ENGLISH

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ABSTRACT

Students with Hearing Impairment (HI) face various implications in the process of learning as a result of the hearing loss. The academic performance of these students who have hearing loss or have ability to only perceive slight sound is affected greatly. These students with HI have continued to perform below average in Kenya Certificate of Secondary Education (KCSE). The objective of this study was to find out the teaching and learning strategies employed in teaching and learning English and their implications on the academic performance. The study adopted multiple case study design within a qualitative approach. The study was conducted in the four special secondary schools for the deaf in Nyanza region of Kenya with a sample size of 48 participants. The sample size comprised 33 form 3 students, 7 teachers of English, 4 Curriculum Support Officers and 4 Principals of Secondary Schools for the Deaf. Purposive sampling technique was used to select the four schools while saturated sampling technique was used to select 7 teachers of English. Stratified sampling was used to select 33 Form 3 students. The study employed In-depth interview schedules, focus group discussion guides, Classroom Observation Checklists and the document analysis guide as the research tools for data collection. Thematic analysis was employed for data analysis based on the themes that emerged from the study. The findings of the study indicated that the methods used for instruction during English lessons include note taking, questioning technique, incorporation of ICT, Use of visual aids, dramatization, group discussions, lecturing, singing, use of peer tutoring, team teaching among others. Group discussion and peer tutoring are the preferred approaches of instruction. However, these methods needs close supervision by the teacher. The study recommends a quasi-experimental study approach on the effect of the learning strategies on deaf students' academic performance in English to identify appropriate strategies that can produce a positive outcome.

KEYWORDS: Students with Hearing Impairment, Sign Language Systems, Teachers of English, Perspectives, Academic Performance, Teaching and Learning Strategies

1.0. BACKGROUND OF THE STUDY

The instructional strategies that teachers plan for their students are determined by their beliefs, perspectives and decisions (Woolfolk Hoy, Hoy & Davis, 2009). According to Dada and Atlanta (2002) teachers' beliefs may not only be associated with teaching practices but also with characteristics exhibited by students such as special educational needs. For instance, Siima (2011) found out that teachers perceived deaf students as slow learners and this influenced their knowledge and of use of methods in teaching reading and writing. Similarly, Ludago (2014) observed that most of the teachers of the deaf in Ethiopia were not energetic and psychologically ready to teach deaf students. Additionally, a positive relationship between teachers' beliefs and their classroom practices in the teaching of reading comprehension has been established (Richardson, Anders, Tidwell & Lloyd, 1991; Chou, 2008). On the contrary, other studies such as that by Khonamri and Salimi (2010) found no significant correlation between teachers' beliefs on the

importance of reading strategies and their classroom practices. Richardson *et al.* (1991), Chou (2008) and Khonamri and Salimi (2010) studies relied on teachers' self-reports on the use of teaching strategies without observing their actual practices. In addition, they did not establish the perspectives of Kenyan teachers on reading comprehension teaching strategies. The current study will employ self-reports and observations to compare teachers' perspectives towards sign systems and their actual classroom practices.

Besides effective teaching strategies, the learning of English necessitates readers to be equipped with a variety of strategies to help them understand what is read (Snow, Sweet, Alvermann, Kamil, & Strickland, 2002). The setbacks of deaf students in reading comprehension have therefore been related to their learning strategies. According to Andrews and Mason (1991) and Strassman (1992) deaf students still experienced difficulties with lower-level skills which delayed the development of independent



reading strategies such as, self-questioning, activation of prior knowledge, summarization, visualization, prediction, inferencing, monitoring comprehension and the re-reading of difficult sections of a text for understanding. Schirmer (2003) and Strassman (1997) further ascertained that deaf students were less aware when they did not comprehend, lacked awareness of learning strategies and how to use them effectively. These studies were however carried out in countries where English is the first language. Moreover, the sign systems used by deaf students in secondary schools in Kenya in English have not been identified by existing studies. The current study therefore aims at

establishing the sign systems used in special secondary schools for the deaf and their implications on academic performance in English where English is a second language and its acquisition contravenes the linguistic interdependence theory

In Kenya Certificate Secondary Education examinations, students with hearing Impairment perform below average. (KNEC; 2021, 2020, 2019, 2018 and 2017). This can be confirmed in Table 1.1 which shows the mean scores in English versus KSL for A, B, C, D, E and F secondary schools for the deaf in Kenya for the 5 years, that is, 2017 to 2021

Table 1.1: Kenyan Secondary Schools for the deaf K.C.S.E. English and KSL Mean Scores for the Years 2021, 2020, 2019, 2018 and 2017

Year	2017		2018		2019		2020		2021	
Subject/ School	ENG	KSL	ENG	KSL	ENG	KSL	ENG	KSL	ENG	KSL
A	3.0	8.0	2.4	8.6	2.9	9.7	4.1	9.6	3.8	10.8
B	-	-	2.1	8.7	2.0	6.4	2.2	5.6	2.6	8.9
C	2.4	9.7	2.3	8.7	2.4	6.8	3.0	8.9	2.3	8.2
D	1.7	7.93	2.2	8.7	1.8	5.8	2.1	5.6	2.8	8.9
E	-	-	-	-	-	-	2.5	7.5	2.0	7.6
F	1.41	7.9	1.67	8.6	1.47	4.37	1.49	7.6	2.42	6.5
MEAN SCORE	2.4	8.5	2.3	8.7	2.3	7.2	2.8	7.4	2.7	8.9

Source: County Directors of Education (Siaya, Busia, Migori, Bomet, Vihiga, Nandi)- 2022

NB: *School B had not registered KCSE candidates before the year 2018*
School E had not registered KCSE candidates before the year 2020

KEY

ENG- English, KSL- Kenyan Signed Language,

Special secondary schools for the deaf have been posting a below average record in the results of English in Kenya Certificate Secondary Education examinations. This is depicted in table 1.1. In the years 2017, 2018, 2019, 2020 and 2021 out of the mean of 12, students registered mean scores of 2.4, 2.3, 2.3, 2.8 and 2.7 respectively. All these grades are D Minus (D-) (K.N.E.C. results, 2017- 2021). In the Kenyan grading system, these results are regarded below average and may not enable the students to enter courses that are regarded as competitive and marketable. Even if the affirmative action is considered, learners with HI who score such grades may not enter higher institutions of learning like teachers' training colleges. The reason for this low performance is suspected to be associated with the sign system used in classroom.

A check on the performance in the specific areas also showed that the learners with hearing impairment face challenges across the sections that are examined in the English paper. This is evident in Table 1.2 and 1.3 which show English results of Form 4 and Form 3 sub county joint examinations that were conducted in the year 2022.



Table 1.2. Performance of Form 4 learners with hearing impairment in various sections of the English Paper in various Sub County Joint Evaluation Tests, in the year 2022

Skill Area/ School	Reading comprehension			Grammar		Writing		Expressive, Receptive and Oral Skills
Section	Comprehension	Literary Appreciation	Essays from Set Texts (2)	Grammar	Cloze Test	Functional Writing	Imaginative Writing	
Maximum Score	25	40	40	15	10	20	20	30
A	6.17	3.5	2.3	7.17	5.0	6.83	3.5	5.0
B	2.5	1.83	1.73	2.67	1.83	2.83	2.67	1.83
C	3.83	3.17	3.17	2.33	2.5	2.8	3.1	2.5
D	3.33	0.5	2.33	2.67	0.33	5.33	3.33	3.67
E	5.8	3.25	1.7	1.2	2.2	4.2	2.8	8.4
F	4.0	1.145	1.36	0.00	1.43	4.0	2.0	3.72
Average	4.405	2.233	2.098	2.67	2.215	4.332	2.9	4.187

Source: County Directors of Education (Siaya, Busia, Migori, Bomet, Vihiga, Nandi)- 2022

Table 1.3. Performance of Form 3 learners with hearing impairment in various sections of the English Paper in Sub County Joint Evaluation Tests, in the year 2022

Skill Area/ School	Reading comprehension			Grammar		Writing		Expressive, Receptive and Oral Skills
Section	Comprehension	Literary Appreciation	Essays from Set Texts (2)	Grammar	Cloze Test	Functional Writing	Imaginative Writing	
Maximum Score	25	40	40	15	10	20	20	30
A	3.5	2.0	1.92	5.3	1.2	3.33	3.3	2.0
B	6.17	3.5	5.0	7.1	2.1	6.83	3.5	5.1
C	6.1	2.67	5.2	8.4	2.6	4.2	2.8	8.4
D	4.0	1.15	1.36	0.00	1.43	4.0	2.0	3.72
E	6.3	3.3	3.1	8.1	2.2	4.5	4.4	6.8
Average	5.214	2.523	3.316	5.78	1.906	4.572	3.2	5.204

Source: County Directors of Education (Siaya, Busia, Migori, Bomet, Vihiga, Nandi)- 2022



From tables 1.2 and 1.3, it can be clearly seen that learners with HI perform below average in all English skill areas. In reading comprehension which accounts for 52.2% of all marks in English paper, form 4 students with HI have an average of 2.912 out of the possible 105 while form 3 have an average of 3.684.

2.0. STATEMENT OF THE PROBLEM

Students with hearing impairment are confronted with various challenges in handling their academic work as a result of their state of having hearing loss. This usually hinders their academic performance hence leading to their underperformance. Reading comprehension, writing, receptive and expressive skills and grammar all account to a high percentage of marks in English. Given that the students with HI have a below average results in these areas yet they account for a high percentage of marks in general, then this may affect their overall performance given that English as a subject, presents service skills that facilitates understanding of all subjects written in English. There are no known studies that have been undertaken regarding strategies used during instruction of English lessons for learners with HI. If any, specifically, it is not well specified which are the most appropriate methods to use in teaching English in special secondary schools for the Hearing Impairment despite the lower average performance in English. This study was therefore necessary to investigate teaching and learning strategies used in classrooms in special secondary schools for learners with Hearing Impairment and their implications on academic performance in English.

3.0. OBJECTIVE OF THE STUDY

The study objective was to assess the teaching and learning strategies employed in teaching and Learning English in special schools for the deaf and their implications on academic performance

4.0. RESEARCH DESIGN

This study adopted multiple case study design.

5.0. LOCATION OF THE STUDY

This study was conducted in secondary schools for the deaf in Nyanza region of Kenya. The Nyanza region consists of the former Nyanza province. The counties in the region are Siaya, Homabay, Migori, Kisii, Nyamira and Kisumu.

6.0. TARGET POPULATION

The target population consisted of Principals of secondary schools for the deaf in Nyanza region, Curriculum Support Officers for SNE, Teachers who are teaching English in secondary schools for the HI and the form three students in secondary schools for the deaf in Nyanza region. Total target population was 111.

7.0. SAMPLING TECHNIQUES AND SAMPLE SIZE

The sample was drawn from four special secondary schools for the deaf in Nyanza region. The researcher then used saturated

sampling to sample all the four secondary schools for the HI. Purposive sampling was used to sample 4 Curriculum Support Officers for SNE; 4 Principals and 7 English language teachers were selected while Stratified random sampling was used to sample 33 students

8.0. RESEARCH INSTRUMENTS

The study employed interview schedules, focus group discussion guide, Classroom Observation Checklists and the document analysis guide as the research tools for data collection. The interviews were used to get in-depth information from the principals and teachers of English.

9.0. DATA ANALYSIS

This study adopted thematic analysis to generate the findings.

10.0. RESULTS AND DISCUSSIONS

10.1. STRATEGIES THAT TEACHERS USE IN TEACHING ENGLISH

Teachers of English were asked which teaching strategies they employ in class during English lessons. Some of them reported:

Methods I use are incorporating ICT, projecting, use of teaching aids (ToE 6)

Hmmm... the effective ones are the visual methods and also dramatization. They are better because they are visual. These students respond better to visual things. Anything visual helps a lot. (ToE 4)

I usually use learner centered mostly, that is a lot of presentations, demonstrations, discussions, most of the work are being done by the students (ToE 3)

I use visual learning, because learners are sensitive. I love discussion. I love learners to have hands on. Learners to express themselves. Lecturing just a little bit but a lot of it I use learner centered and takes a lot of time. (ToE 5)

Form three students were also asked the approaches that teachers use in class. They mentioned the following approaches as the ones that teachers use in class during English lessons;

Group discussions, projectors, storying (FGD 1)

Sometimes the teachers ask questions, if it is hard, then they put us in groups we discuss. For questioning, if there is any hard questions, the students asks the teacher. (FGD 2)

It can be concluded that the methods that teachers use include use of note taking, questioning technique, incorporation of ICT, Use of visual aids, dramatization, group discussions, lecturing and singing.

In regard to the approaches used in teaching, CSO SNE commented,



Sometimes you can use demonstration or role play. Some students are good in groups, so we arrange them in groups so that the strong ones can work with the weak ones and help them. I have seen students who are deaf explaining something to others and they understand it better to one another. (CSO SNE 3)

Hmm... mostly when I pass around, I see the teachers have put the learners in group discussions as well as lecturing method. (P. 1)

We use lecture method through signing or learning and teaching aids. We also use group discussions. (P. 2)

On their part, the principals were asked the methods and approaches that Teachers of English use. They reported the following;

From lesson observation, it was noted that whilst the teacher had put students in groups for discussion then stepped out of the class shortly to attend to an urgent matter, the students dispersed from the groups and stopped undertaking assignments that they teacher had given them.

What strategies are used during English lesson? For example, discussions, guided writing, peer teaching, group work.	Guided writing. Group work was also given. However,
What are the impacts of the strategies employed when teaching English? / Are the students able to write correct sentences in English when the strategies are applied?	The teacher was called in the office to attend to something and all learners left the group and went to stand outside the class.
What are some of the challenges faced by learners when learning English writing skills? / Aspects of KSL that are transferred to English writing.	

Figure 4.35. A Lesson Observation checklist on how students with HI use Group Work

From figure 4.35 which is was taken from part of the lesson observation, it can be seen that students with HI although they had been given assignment which they were doing in groups with their teacher, once the teacher stepped out, they also stopped discussion

in groups and walked out. They stood out on the verandah and started playing. From other lesson observations, it was noted that teachers used various methods during English lessons.

Do the learners who use the KSL or SEE well respond correctly to all the questions.	The learners were active as the teacher narrated a story.
What strategies are used during English lesson? For example, discussions, guided writing, peer teaching, group work.	The teacher used group work. The projector was also used. This appeared very important during the lesson as the attention of the learners improved.
What are the impacts of the strategies employed when teaching English? / Are the students able to write correct sentences in English when the strategies are applied?	
What are some of the challenges faced by learners when learning English writing skills? / Aspects of KSL that are	

Figure 4.36. A Section of Lesson Observation Guide on various Methods Used During English Lessons.

From figure 4.36, it can be seen that teachers used various methods. These methods include note taking, questioning technique, incorporation of ICT, Use of visual aids, dramatization, group discussions, lecturing and singing, use of peer tutoring, team teaching, use of total communication among

others. The commonly used methods by teachers of English in their teaching are lecture and group discussions. Drama, debating and role plays are not utilized fully. From document analysis, it was noted that during one of the Departmental staff meeting, teachers confirmed having implemented Team teaching.

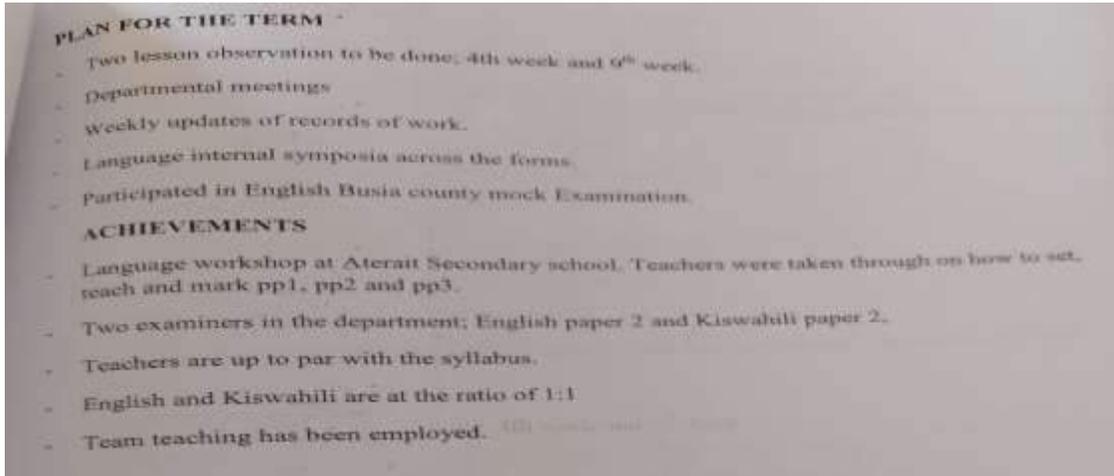


Figure 4.37. A Section of Minutes of Languages Department Meeting on Team Teaching

From figure 4.37, it can be noted that, one of the achievements noted during the meeting was employment of the team teaching. Through Document Analysis, it was also noted on the lesson

plans of the teachers of English that actually these methods were planned for.

TIME ESTIMATE	CONTENT	LEARNING ACTIVITIES	LEARNING RESOURCES
5 mins	Introduction -Review of the previous content on functions of adverbs. -State the objectives of the current lesson. -Define functions and formation of adverbs.	-Asking questions -Answering questions	-Head Glow English Books Pages 135-140
STEP I 15 mins	Content delivery -Form adverbs from adjectives with the given words by adding the suffix -ly.		
STEP II 15 mins	-Write two groups of sentences and ask the learner to identify if it has been used as an adverb or as an adjective.	-Presentation	
5 mins	Conclusion and assignment by Head Glow pages 140 Exercise 8	copy down the assignment and submit for marking	

Figure 4.38a. A Section of Lesson Plan for Form 3 English

From figures 4.38a and 4.38b, it can be seen that the form three English teacher had planned to use questioning Technique, lecturing, role play, demonstration and note taking

These findings agree with findings by Riwayatinarsih (2019) who showed that the use of questions helps students to think critically hence meaningful learning. The findings also agree with finding by Situmorang (2021) who established that group work

TIME ESTIMATE	CONTENT	LEARNING ACTIVITIES	LEARNING RESOURCES
5 mins	Introduction -Review of the previous lesson on plot analysis in the play characterization and dramatic devices.	-Narration -Signaling	-A doll's house by Henrik Ibsen -Chalkboard
STEP I 15 mins	Content delivery Assign the learner the role of Nora, Helmer, Mrs. Linden and Gregor.	-Role-play	
STEP II 15 mins	Read and sign the assigned roles in the play. Note the difficult words and give meanings of similar words.	-Start reading -Signaling -Note-taking	
STEP III 15 mins	Explain the meaning of the words.	-Question and Answer method.	
5 mins	Analyze the plot analysis in the play. Conclusion Summarize lesson with plot analysis.	-Presentation	

Figure 4.38b. A Section of Lesson Plan for Form 3 English

had a positive impact on students, attitudes and enlarged their commitment to completing assignments. The findings from the current study further agrees with findings from Li and Vandermensbrugge (2011) who revealed that group work helped international students to start their writing process, it motivated them to develop their writing skills, increased their self-confidence as writers and supported them through their writing. These findings agree with finding by Caddy (2015) who



established that teachers made use of a balanced literacy program in their classrooms but also emphasized the development of English comprehension and vocabulary among English First Additional Language (EFAL) learners. These findings further agrees with findings by Namukoa (2014) who noted that the best practices and strategies for science literacy instruction are known to teachers. However, these strategies are not fully implemented during classroom instruction. Teachers of English are only implementing some of the strategies superficially during classroom instruction.

These findings agree with findings by Mutai (2012) who established that the commonly used methods by teachers in their teaching are lecture and group discussions. Drama, debating and role plays are superficially utilized. The findings further agree with findings by Chabari and Awori (2017) who revealed that teachers were not so sure of which strategies and projects that could be used to improve writing among learners with HI. The findings further agree with Caddy (2015) who stated that teachers made use of a balanced literacy program in their classrooms but also emphasized the development of English comprehension and vocabulary among EFAL learners. Teachers adapted their strategies to provide support for the learners by adjusting their pace of teaching and providing much needed individual attention during group guided reading session especially for learners whose English reading development and academic achievement had been negatively impacted by overcrowding, lack of parental support and poverty.

The findings also agree with Wandera (2012) who argued that questions and answer instilled on students a mix of listening and speaking skills. The use of questions and answer can enable learners to be proficient in English writing skills when the questions and answers are given in SEE. Otherwise, if the questions and answers are stated in KSL then it cannot aid in writing good English.

The findings also agree with Kilave (2015) who sought to explore teaching deaf and hard of hearing (d/hh) learners and argued that for students to get background information and develop schema and vocabulary related to subject content, visual aids such as photos, films, should be used to provide multiple examples of concepts

10.2. Effectiveness of the strategies used in teaching English

Teachers of English were asked their opinion on how effective the methods are and how the students receive the content when teaching using the mentioned approaches. They stated;

What I have realized with deaf, is that when you use methods that involve them, then their reception and concentration will be better and you will see them happy and interested. Methods like the use of flash cards. Also

when you project, you will see most of the learners are interested. (ToE 6)

Yes, they are effective, because you find that, that thing which you did in the role play, they will be able to remember, so the question may not even touch on that particular segment, but you find that that is the only thing they remember, so they write it down, so it has an effect, at least they know what is happening in the text. (ToE 2)

I have observed that in the way they enjoy. In the way you make them to behave like teachers. It builds their confidence and then it motivates them to get something more. When you present the concept, it sticks in their mind. (ToE 3)

They are bearing fruits, when I was in my first year of teaching, I was majorly lecturing, question and answer, but I never saw fruits, but for now, if I am using learner centered, ... (ToE 6)

Form three students were also asked to comment on the effectiveness of the methods that their teachers use in class during English lessons. They noted;

While in group discussions, possible one person help other then answer question and easily help each other. Projector helps to memorize same improve memory. (FGD 2)

Some of them help zero, there are songs in English, but when you read, the song, you don't understand, meaning the singing does not help, singing important zero. (FGD 6)
The best method is discussion. Some students best understand so they help me understand then I improve. Discussion best since it helps us improve National unity and cooperation. (FGD 3)

Curriculum support officers for SNE were also asked to comment on the effectiveness of the strategies that teachers use for instruction. One of them commented

I have observed a number of teachers at the special schools, but the methods these teachers use is the teacher centered approach. The teacher signs everything, just like that. It is teacher centered. Children are not put in groups. They are there listening and observing. Learner participation is very minimal. So the approaches are not effective. I believe the learners should be involved in the learning process. (CSO SNE 2)

From document analysis, it was noted from the schemes that the teachers did not plan for learner centered activities. According to schemes of work, the learning activities were to general and did not have specific activities to engage the students.



Wk	Ln	Topic	Sub-Topic	Objectives	Learning Activities	Resources	References	Remarks
1		REVISION AND TESTING						Control Wall
3	1-2	Reading Comprehension	Are people sceptical?	By the end of the lesson the learner should be able to: • Make prop. notes for the topic given • Answer the summary question given correctly	• Reading • Discussion • Writing	Extracts from Recd. in English Bk 4 Pg 106-107	New Horizons in English Bk 4 Pg 107-109	used material as learner appeared to struggle
	3-4	Grammar	Functions of Adjectives	By the end of the lesson the learner should be able to: • Use adjectives in sentences correctly	• Reading • Discussion • Writing	Class Readers	New Horizons in English Bk 4 Pg 107-109	
	5-6	Writing	Letter of Request	By the end of the lesson the learner should be able to: • Write a letter of request correctly	• Discussion • Reading • Writing	Sampled Letter of Request	New Horizons in English Bk 4 Pg 86-87	Control Wall

Figure 4.40. A Section of Scheme of Work for Form Three English

From figures 4.0, it can be seen that when scheming, teachers of English do not plan for learner centered lessons. They do not have specific learning activities which involve the learners directly in the lesson. The activities for students mentioned are too general like discussion, reading, writing, note taking which do not engage the learners.

It can be concluded that students with HI consider group discussion and peer tutoring as the effective methods to be used during instruction of English lessons. It can also be concluded that use of songs is not an effective approach to teaching students with HI

These findings agree with findings by Borjian and Padilla (2010) who disclosed that there is a need for teachers in the US to help more their students becoming proficient in English in order to succeed in academics. The current study has revealed the need for teachers to use approaches that help students with HI pass their English Examinations. These findings are at variance with findings by Thu (2019) who revealed that learners understood faster concept faster and scored higher when they were taught through songs. These findings further disagree with findings by Ikonta and Maduekwe (2012) who indicated that the use of reading tactics impacted positively on students' reading and summary writing ability. The current study indicates that reading is a approach to be used and most students with HI are poor in reading. These findings further agree with findings by Li and Vandermensbrugge (2011) who revealed that group work helped international students to start their writing process, it motivated them to develop their writing skills, increased their self-confidence as writers and supported them through their writing. The use of group work is an effective approach as it triggers thinking the students and enables them to improve their writing skills as well as other language skills. These findings further differs from the findings by Caddy (2015) who indicated that teachers use a balanced literacy program in their classrooms and also emphasize the development of English comprehension and vocabulary among English learners; teachers adapted their strategies to provide support for the learners by adjusting their

pace of teaching and providing much needed individual attention during group guided reading session especially for learners whose English reading development and academic performance had been negatively impacted by overcrowding, lack of parental support and poverty. In the current study, no evidence has been seen showing the commitment of teachers to adapt their strategies so as to provide support for the learners to improve their performance in English. These findings also agrees with findings by Namirembe, Mkama & Kilave (2015) who indicated that pre-teaching and re-teaching led to a significant difference in the academic achievement of the d/hh and hearing. Namirembe, Mkama & Kilave (2015) espoused the role of visual aids such as photos, films for the students to get background information and develop schema and vocabulary related to content subject. Teachers of English confirmed the effectiveness of using projectors and visual aids when teaching English as learners understood concepts better.

The findings from the current study further agrees with findings by Choshi (2015) who established that the Department of Basic Education in South Africa has not come up with any specific teaching strategies. Teachers are therefore innovative on their own ways and they come up with approaches that suit the lesson and the type of learners. Choshi (2015) opined that teachers should use different approaches since performance of English improve. The use different strategies by teachers of English is important since learners with HI have different interests and needs hence the diversification of strategies will ensure majority are helped in class.

11.0. SUMMARY OF FINDINGS, CONCLUSIONS

11.1. Summary of Findings

The methods used for instruction during English lessons include note taking, questioning technique, incorporation of ICT, Use of visual aids, dramatization, group discussions, lecturing, singing, use of peer tutoring, team teaching among others. Use of songs is not an effective approach to teaching students with HI.



11.2. Conclusion of the findings

Group discussion and peer tutoring are the preferred approaches of instruction. However, these methods need close supervision by the teacher.

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CULTURAL ACTIVITY AND ETHICAL CULTURE AND ITS PEDAGOGICAL MECHANISMS

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ABSTRACT

This article talks about moral culture, free rethinking of moral norms and rules existing in society, spiritual “digesting” of them, relying on them and practical activities. Morality becomes an internal, inner, necessary need of a person and determines the social direction of his moral activity. After all, morality not only evaluates the behavior and moral of people, but also encourages them to follow certain moral norms and rules.

KEY WORDS: *morality, behavior, culture, spirituality, social factors, personality.*

Each socio-economic system introduces its own moral norms, which strives to form these norms in the consciousness and behavior of a person.

At the same time, moral culture is formed with the help of moral, ethical consciousness. It is inappropriate to separate them from each other and imagine them separately. The concept of moral culture is explained in different ways in scientific literature. Although they are close to each other in essence, they differ in content and form. In this regard, our pedagogic scientists approach this issue in different ways, they focus on the personality of the child and based on this, they define this concept.

For example, O.Musurmanova in her monograph “Formation of spiritual culture in students” writes “Ethical culture is the moral knowledge, skills and abilities, moral awareness and activity norms, moral rules of the student's behavior [1]”.

In our opinion, there seems to be a number of confusions here. First of all, let's clarify the concept of “norms of moral consciousness”. Usually, we call the reflection of moral norms in the human mind as moral consciousness. The sentence of activity norms remains unknown. Only when a person, including a student, turns certain moral norms and rules into their life activities, their culture is formed. O.Musurmanova's opinion that “Ethical consciousness, on the one hand, critically perceives the manifestations of moral culture around it, and gradually begins to create a structure and system of moral culture from these accepted components” [1] are rather abstract and confusing.

Ethical awareness comes from treating the surrounding events from the point of view of morality and immorality. True, a person's moral culture also affects the moral consciousness of others. He, of course, reveals only one side of the matter. Moral consciousness is the basis of spiritual culture. Its criterion is moral knowledge, moral norms, moral thinking. One of the important tasks of moral culture is to raise moral consciousness

to a higher level and to perform practical activities.

To achieve this, first of all, it is necessary to understand the essence of social consciousness. Because the basis of the spiritual life of society is social consciousness. Some philosophers try to equate moral culture with moral consciousness, while others ignore the commonality between them. As a result, these concepts confuse the definition of commonalities and differences between the categories of social philosophy and ethics.

In our opinion, moral consciousness is a collection of views, imagination of ideas, emotions and their reflection in the human mind, while moral culture is the reflection of these things, absorbed into his character and nature, and manifested in his practical activities. In determining the essence of moral culture, our pedagogic scientists are trying to equate moral culture with the concept of moral education.

For example, according to U.Mahkamov, “The essence of moral culture is to mobilize high-class students to actively participate in society's production, social and spiritual life [2]”. In our opinion, the essence of moral culture develops, enriches in content, and expands in form during the entire life and social activity of a person.

Moral education is carried out in the family, school, higher and secondary special educational institution and in the production process, at the same time, it is a condition for the formation of moral consciousness and moral culture. In many places, the concept of “education” is confused with the concept of “civilization”, but despite the fact that there are many similarities between them, certain differences are also observed.

Culture has a wide meaning. An immoral person cannot be considered civilized. “In my opinion, - wrote A.Qahhor, - the word “cultured person” means culture, humanity. The most cultured, the best person, the most humane person will be a



cultured person [3]". At the same place, ethics and culture are connected. This is where the meaning of moral culture comes from.

The concepts of culture and moral culture should not be confused. Because the concept of culture is used in a broad sense in relation to moral culture and has a general character to a certain extent. Ethical culture is seen as a form of it. A person lives and works in a cultural environment. Culture has a dynamic character and is inextricably linked with the development of the social system.

Culture is a multifaceted concept, which is studied by such sciences as philosophy, literature, pedagogy, ethnography, psychology, sociology, and sophistication.

Cultural activity is a form of social activity, related to it and related to it. At the same time, it has relative independence and influences them. At the same time, the relative independence of culture creates its own characteristics. But these features interact with the laws of cultural development. Accordingly, the essence and development of moral culture is subject to certain laws.

Culture is formed as a result of social production. Social development includes political, economic and spiritual processes.

Culture is a collection of material and spiritual resources created during the history of mankind, but they are creative activities processed from the point of view of the social interest and needs of this period within the requirements of a certain stage of development. According to some of our scientists, culture is a set of values that help the formation of a person as a person.

The understanding of "culture" is related to its historical approach, which determines the uniqueness of man and society in nature. In a broad sense, culture means the sum of all material and spiritual wealth created by man over the centuries.

Initially, the concept of "culture" was used mainly to define the influence of man on nature, to describe his achievements, which represent his mastery of the forces of nature.

It is known that culture is a social phenomenon. This is why the concept of "culture" is multifaceted and has a rich character. From the ontological point of view, culture is the result of the activity of the people, which has the laws of its emergence, development and implementation, the product of its historical development.

From a logical point of view, culture represents a system that has its own laws, structure, etc., which is objectively formed as a result of the practical activities of people. From the epistemological point of view, culture as a philosophical-social theory reflects the laws of cultural phenomena as a complex social phenomenon. The definition of culture can be complete only if all these are taken into account.

Culture is "humanized nature" and is the product of the activities of people created in the sphere of economic, social, political and spiritual life of society. Culture is a set of resources produced by mankind for their own needs, which forms a certain system.

Therefore, one should not associate the emergence of this or that social phenomenon with the emergence of the concept of it. The concept of "culture" appeared in European social thought in the second half of the 18th century, but culture as a social phenomenon began with the emergence of mankind and the creation of labor tools.

There are different opinions about the components of culture in the scientific literature. But their thoughts converge at one point. Culture is divided into two parts: material and spiritual culture. Each of these parts has different shapes. For example, spiritual culture is divided into political, legal, ethical, aesthetic, and religious cultures.

It should be emphasized that if high culture is not established in society, there will be no morality in such a society. There is no spiritual and moral atmosphere in social life. Therefore, culture and morality are inextricably linked. People understand morality in different ways. Its true criterion is determined by moral culture. A person's morality is related to how he acquires culture.

Theoretical aspects of morality are reflected in ethical culture, and at the same time, it is inextricably linked with perceived moral activity. Ethical culture represents the development of moral norms and rules based on specific conditions, reconsidered from the point of view of the era. In this respect, moral culture differs from moral value. At the same time, it relies on moral value, because it serves as a source of moral culture.

Based on the above, we can conclude that moral culture is an independent philosophical concept, which is inextricably linked with such concepts as ethics and moral consciousness and forms a whole. Connects moral theory with practice. It expresses the level of understanding of moral views, ideas, inner experience and emotions by people.

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MEMORY IS THE FOUNDATION OF SPIRITUALITY

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ABSTRACT

This article discusses the role of spiritual factors in the process of realizing the identity of the people and the importance of historical traditions and customs in achieving spiritual perfection. Furthermore, the article reflects the role of socio-philosophical heritage and the special importance of spiritual heritage today, the mutual relations of historical memory, historical consciousness and socio-philosophical thinking.

KEY WORDS: *History, historical truth, spirituality, memory, culture, self-awareness, socio-philosophical heritage, philosophical thought, civilization, thinking, nation, language, consciousness, spiritual factor.*

The development of spirituality in our country, which is recognized as one of the centers of world culture, has a long history. The beginning of philosophical ideas dates back almost three thousand years. Historical thinking is not a random phenomenon. It refers to a collection of spiritual abilities that are developed through intergenerational communication and social relationships. These spiritual skills play an irreplaceable role in personal fulfillment and cannot be compared with any other factor. Therefore, for every nation, it is crucial to preserve their historical memory.

In our history, we faced challenging situations, and the totalitarian class ideology that governed our lives until independence attempted to manipulate the historical memories of the peoples of the former Union for its own nefarious purposes. One of their objectives was to create a single "Soviet nation" by erasing the historical memory of the peoples under their control. Time is often viewed as a great judge. However, the idea of the Soviets has been lost to the passing of time. As time goes on, it has become clear that it is not an easy task to separate a nation from their language, spirituality, and traditions. For instance, Rasul Hamzatov, a poet from the mountains of the Caucasus region under Russian control, was able to elevate the Avar people, a minority group, with his figurative poems. He writes about the importance of his mother tongue in his work:

*Mayli, kim qay tildan zavqu shavq olsa,
Mening o'z tilimga ming jonim fido.
Erta ona tilim agar yo'qolsa,
Men bugun o'lishga bo'lurman rizo.
Mayli, qashshoq bo'lsin, mayli, behasham,
Lekin mening uchun aziz va suyuk.
Jahon minbaridan yangramasa ham,
Ona tilim, menga muqaddas, buyuk.*

Rasul Hamzatov is a poet who has beautifully captured the national sentiments of his small nation through his work. His poems have also highlighted the importance of preserving their language and culture. Despite the government's efforts to

erase the history of many nations, Rasul Hamzatov's collection of poems titled "Mening tug'ilgan yilim" ("Year of My Birth") was recognized and awarded the State Prize in 1952. In 1963, he was awarded the title of laureate of the Lenin Prize for a collection of poems published in many languages under the name "Yuksak yulduzlar" ("High Stars"). This situation itself was the government's withdrawal from its idea. That is, it was proved by itself that the idea of creating another false, artificial nation after losing many nations was not thorough. Finally, the country of the Soviets, built on the basis of such inappropriate ideas, faced a crisis. An important and integral part of historical memory is the socio-philosophical heritage. It should be said that the interaction of historical memory, historical consciousness, and socio-philosophical thinking is multifaceted, they are important components of each other, and they are essential factors for each other's development. To put it simply, history is the foundation of the nation's spiritual treasure. This is finally the right definition! At the same time, it should also be said that the philosophical heritage is an integral and fundamental part of the people's spirituality. Indeed, history and historical memory are one of the most important sources of formation and development of socio-philosophical heritage. Therefore, both of them are the object of understanding the human activity, the way of life of the people, the general essence of the historical process.

In fact, the nation condemned to forget its identity should begin to understand its identity by studying history. "Self-awareness begins first of all with the study of the past, with the need to know history" writes the well-known scientist N.Jorayev [1]. Every self-aware person wants to know what kind of family they were born into, who their ancestors were, what their ancestors did and how they lived. They are proud of their qualities and heritage. Indeed, no factor can be a more reliable basis for self-awareness than historical memory.

However, it should also be said that in understanding history, it is necessary to study not only the factors of material



production, as in the recent past, but also it is necessary to understand it in every way and study it as the main source and basis of our spirituality.

Historical memory is the understanding of each people, and nation of their place in time and space, lineage, identity, true history, spiritual and cultural origins, place in human history, contribution to its development, national pride, independent and objective understanding of pride.

Of course, if the people have their historical memory and historical consciousness, they will inevitably understand and interpret the historical and social processes they have experienced more deeply. These attempts are embodied in the scientific activities of scientists and thinkers who are considered to be representatives of the people and it is manifested by them in the scientific-theoretical analysis of society, human life and spirituality, in the creation of its known theory and concept. This, in turn, can be an important factor in the more effective development of the philosophical process and the development of theoretical and social thinking.

It is interesting to consider how the theoretical and methodological successes achieved in our past socio-philosophical thinking can contribute to the development of the Central Asian peoples. Specifically, the restoration of the historical memory of the Uzbek people can be seen through the works of Farobi. Farobi's interpretations of certain aspects of the formation and development of a certain people and nation can be viewed from a methodological standpoint. In this way, it will become clear to you that the process of development of historical memory is not spontaneous - unexpected, random, but based on a certain theory, the evolution of development.

At first, the scholar attempted to analyze and justify the process of how historical memory and national consciousness are formed and developed, as well as their precise mechanisms. He sought to explain how historical memory arises from the combination of a particular nation's spiritual legacy and that of humanity as a whole, along with the spiritual principles of certain virtuous individuals.

"People's bodies will disappear; their souls will be freed from their existence (cage) and will attain happiness. Then others will take their place and continue what they did. In the same way, after the death of the people of this generation, their souls can follow the footsteps of their predecessors and join with the close souls of similar appearance (character and qualities), strength and personality. But they can be joined by a number of like-minded people. When souls join together, no matter how huge they are, they do not crowd each other in space due to their incorporeality. Because they never occupy space, and the union of souls does not occur from the union of bodies" [2].

Hence, the spiritual values - also known as "paths" - that originate from human and social life, and later become the

foundation of historical memory, are sustained and progressed through the spiritual legacy within the inner world of future generations. Farobi argues that a particular group of people is united by a specific spiritual element, making them function as a team.

Spirituality is based on a long history and embodies the spirit of all past people, and generations, that is, their thoughts, ideas and beliefs. The spiritual factor is very complex and multifaceted, and it certainly includes historical memory and national consciousness. Because they develop in connection with each other and lead to each other's improvement.

Of course, we do not find the concepts of historical memory and national consciousness in the current sense directly in Farobi's works. However, the methodical approaches of scholars to these issues can help us today to have sufficient information on the same issues and to solve the issue based on modern requirements.

Belonging to a particular religion is often intertwined with a nation's history and sense of identity, as it is tied to the collective memories of its people. "This is because the shared beliefs and values of a community shape their way of thinking and perceiving the world around them. There are more or less differences and differences even in the most popular (widespread) ideas of certain peoples. Because every nation understands and reflects those events in its own way" [2]. As mentioned earlier, Farobi believed that the formation and development of spiritual consciousness is crucial for every nation. He also believed that historical memory is an integral part of this consciousness. In order to better understand and interpret this issue, he raised theoretical problems.

It is interesting to note that the scholar emphasizes that the historical memory and consciousness of a certain nation has its own characteristics, and emphasizes that it is connected with certain universal values and virtues as a necessary condition. This issue is particularly evident when examining the fact that different cultures have their own religions and unique interpretations of historical events. The scholar wrote that even though people in virtuous cities may believe in God and strive for a common happiness and goal (such as being deserving of heaven in the afterlife), their religions could still be different [2]. It is determined from this that the process of understanding its past based on the historical memory of each nation should be formed in connection with the development of the historical consciousness of the entire humanity.

The ideas of Abu Rayhan Beruni are significant for understanding the methodological and theoretical aspects related to the issue of historical memory from a historical perspective. In particular, his contributions to the principle that people should not be discriminated against are immense, and this is a crucial aspect of historical memory. Criticizing scholars who prioritize certain nations over other nations, Beruni expresses the following opinion: "This stupidity is an incurable disease; this is that in their belief, there is no land in the world other than their own land, no people other than their



own race, no kings other than their chiefs, no knowledge other than their own, and no religion other than their own there is no religion” [3].

Beruni’s profound insight suggests an important methodological conclusion for studying the issue of historical memory. It states that one cannot fully appreciate the worth of their own people and nation if they lack knowledge of the value of other peoples and nations. The significance of Beruni’s method of studying the past and real history in stabilizing historical memory is evident, especially in the present time. The scientist’s thoughts, including the following, are still very valuable today: “...narratives of ancient nations are reports of past generations, as many of these are the descendants of those nations and their customs and rules” [4]. Therefore, even the narratives should not be neglected in the study of history.

Our socio-philosophical heritage related to Jadidism ideology is also of great importance in methodological and theoretical understanding and interpretation of the problem of historical memory. The practical and theoretical activities of Jadids aimed at developing the Uzbek people, the nation, its national consciousness, and the idea of national independence, certainly play an important role in strengthening the historical memory of our nation. Very interesting and deep theoretical conclusions and discussions in this regard are available in the works of Abdurauf Fitrat. In particular, from his book “Rahbari najot”, we can quote the following words, which embody the centuries-old experience of socio-philosophical heritage, suitable for our time: “Each nation should know its past social and political situation, it is permissible for them to compare themselves with that past historical period and find out how far they have developed from that period. Every nation that wants to survive must look back to their past and to the history of their people. On the other hand, if a nation is headed towards destruction, it is important to identify the causes and abandon the customs that are contributing to this downfall. Another nation should adopt the practices that have led to its own development” [5].

These considerations highlight three crucial aspects of historical memory that are significant for every nation. Firstly, the determination of the people or “community” as a nation. Secondly, it is essential to comprehend the historical lessons and learn from them. Lastly, it is crucial to consider the application of these lessons by other nations. Although Fitrat did not explicitly define historical memory, it is evident that his ideas are closely related to this concept in terms of content and essence. Our socio-philosophical heritage contains not only theoretical approaches to studying historical memory, but also practical guidelines for its application in society. Amir Temur’s “Tuzuklar” provides clear examples of how historical lessons can be used to develop people’s historical memory and applied to improve socio-economic life: “I consulted with wise individuals to gain knowledge about the laws and way of life of the sultans from the past. I memorized their ways, behaviors, actions, and words, and I followed their example of good manners and qualities. I investigated the causes of their

state’s decline and refrained from engaging in any activities that could harm the state and the kingdom. I believe it is essential to avoid tyranny and corruption that can ruin generations and lead to famine and pestilence.”

This is a crucial aspect of historical memory. Learning practical lessons from Amir Temur’s historical path is a valuable experience for current generations.

Another important aspect of historical memory is its role in the development of national pride. When we study our national heritage, we see that Abu Rayhan Beruni approached the issue of pride of a certain people and communities in a theoretical and methodological way. According to his interpretation, each nation makes their own special contribution to world culture and science. In this way, it takes its rightful place among other nations, and can be proud of its scientific and cultural achievements. According to Beruni’s definition, each nation is distinguished by the fact that it has developed some kind of science or experience. At the same time, Beruni objectively analyzes the knowledge and scientific achievements of other nations and strongly condemns scientists who misrepresent them and approach them from the point of view of arrogance.

Today, we began to carefully study the heritage left by our ancestors. From the point of view of the President’s comments below, these conclusions are undoubtedly of significant methodological and theoretical importance.

“Everybody has a precious past. But there is no such a rich history as in our country, such great scientists as our ancestors. We must deeply study this heritage, disclose it to people, the world. It is necessary to achieve that the person who would visit the center had a complete picture of our history, got spiritually enriched, – said Shavkat Mirziyoyev” [6]. Our country’s history is incomplete without mentioning the names of our great ancestors including Farabi, Beruni, Ibn Sina, Amir Temur, Ulugbek, Navoi, and Bobur. These remarkable people created a rich spiritual legacy that enabled our people to live with pride, work hard and strive for freedom over the centuries. This national pride and consciousness form the foundation of our independence today. Shirok, Tomaris, Beruni, Farabi, Abu Ali ibn Sina, Al-Khorazmi, Amir Timur, Bobur, Navoi, and Ulugbek are some of the many people who built on this foundation. We also honor the names of Imam Al-Bukhari and Imam At-Termizi, and always pay our respects to our great-grandfather Khoja Ahmad Yassavi’s pure soul.

In conclusion, we improve our own historical memory and are proud of it by being loyal to universal values without disparaging other peoples and nations, their history, and their historical memory.

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THE RELEVANCE OF SUSTAINABILITY IN INDIAN LUXURY FASHION BRAND: A CASE STUDY WITH REFERENCE TO GRASSROOT

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ABSTRACT

With a growing focus on socially and ecologically conscious activities, the convergence of luxury and sustainability has emerged as a key theme in the worldwide market. This study explores the distinct environment of luxury brands in India and how their relationship to sustainability has changed over time. India, a nation with a rich history, exquisite craftsmanship, and a wide range of cultural influences, is a major player in the luxury industry but also faces social and environmental issues.

This study sheds insight on the paradigm shift towards sustainable practices by examining the evolving Indian luxury brand environment. It looks at these brands' reasons for incorporating sustainability into their basic beliefs as well as the difficulties they faced and the tactics they used. This study attempts to identify the forces responsible for this revolutionary change.

The study's conclusions add to the body of knowledge on sustainable luxury by offering market-specific information unique to India. It provides useful advice to Indian luxury firms navigating the sustainability scene, helping them to adopt more conscientious practices without sacrificing their uniqueness and handiwork. In the end, this study hopes to spark additional conversations and initiatives toward a more sustainable future for luxury brands in India.

KEYWORDS: Sustainability, Luxury, Fashion Industry, Craftsmanship, Rural area.

INTRODUCTION

The idea of sustainability has evolved over the past many years from a passing fad to become a fundamental aspect of the international fashion business. With the convergence of heritage, craftsmanship, and modernity in the context of Indian luxury businesses, this paradigm shift towards sustainability has gained more significance. Given India's position at the crossroads of innovation and legacy, the incorporation of sustainable practices into the luxury brand space becomes a crucial topic of conversation.

Indian luxury products have long been associated with lavishness, fine craftsmanship, and a deep cultural legacy. But the changing global environment—marked by environmental consciousness, ethical consumption, and climate change—has brought sustainability to the fore. International and domestic consumers expect luxury firms to be transparent, use ethical manufacturing practices, and take environmental responsibility in addition to offering high-quality items.

This study discusses Designer Anita Dongre's brand, Grassroot. This Indian sustainable fashion company has been growing both domestically and internationally. It has promoted its stores overseas, particularly in well-known fashion hubs like New York.

The well-known designer, Designer Anita Dongre, supports women's empowerment by providing work opportunities for women living in rural areas. She believes that gaining financial independence could give women more influence. Her support of slow fashion and sustainability also inspires influential

people in the fashion business to assume social and environmental responsibility.

In order to better understand the complex relationship that exists between sustainability and Indian luxury companies, this study will look at the opportunities, problems, and possibility for change. By means of an extensive examination, this investigation aims to elucidate the changing dynamics, strategic priorities, and the influence of sustainability on the Indian luxury market. It places the Indian luxury market in the wider global framework of responsible luxury and conscious consumerism.

Anita Dongre's Grassroot is a sustainable and eco-conscious fashion brand that focuses on traditional Indian craftsmanship and ethical practices. The brand emphasizes the use of organic fabrics, handwoven textiles, and traditional artisanal techniques to create contemporary and stylish clothing.

Grassroot by Designer Anita Dongre is a premium fashion brand that is well-known for its dedication to supporting rural craftsmen and bringing back traditional crafts. The company collaborates closely with talented artisans, giving them a stage on which to display their abilities and uphold traditional methods. The elaborate craftsmanship, block printing, and hand embroidery found in many of the designs are a reflection of India's rich cultural legacy.

The clothing line includes a range of outfits, from casual wear to more elaborate designs suitable for special occasions. The brand's emphasis on sustainability extends beyond just the



materials used; it also encompasses fair labour practices and environmental responsibility.

Overall, Grassroot by Designer Anita Dongre aims to blend traditional craftsmanship with modern aesthetics while promoting sustainability and supporting local artisans.

ACHIEVEMENT TALE

Fashion is a powerful influencer, with the ability to drive and mold popular thought and wellbeing. By giving rural women employment possibilities, designer Anita Dongre promotes women's empowerment. She is an advocate of financial independence as a means of empowering women. Fashion influencers are also encouraged to be responsible for society and the environment by her advocacy of slow fashion and sustainability.

This Indian line of sustainable fashion has been expanding both domestically and abroad. It has advertised its boutiques abroad, particularly in New York and other fashion hotspots.

OBJECTIVES

1. To identify the ways of implementing sustainable elements into high-end clothes.
2. To analysis possibilities and challenges in implementation of sustainability on luxury brand.
3. To identify the success of the brand in implementing sustainability

RESEARCH METHODOLOGY

For this case study, the researcher used secondary data. To gather the information, a range of sources were including reports, websites, journals, publications, and research papers.

DATA ANALYSIS

SUPPLY CHAIN ANALYSIS

RAW MATERIALS

Organic and environmentally friendly raw materials and procedures are used.

As a commitment to sustainability, the House of Anita Dongre (HoAD) uses Bemberg™ and Tencel™, fibers. These are biodegradable and compostable and break down naturally after disposal. The cotton is sourced from the Better Cotton Initiative (BCI), an organization that makes "global cotton production better for the people who produce it, better for the environment it grows in, and better for the sector's future. [4] Anita Dongre has refrained from utilizing fur and leather goods ever since. PETA has commended the business for its commitment to these principles.

SUPPLIER PRACTICES

Utilizing the luxury of space, Grassroot by Designer Anita Dongre created an ergonomically designed office that adheres to the "reduce, reuse, and recycle" philosophy. A sustainable, energy-efficient structure in which we cultivate organic crops, compost our waste, recycle all of our water, and plant trees that serve as bird nesting grounds

ENERGY CONSUMPTION

Reduced energy needs, consumption, and carbon footprint through the use of ventilation and natural sunlight. Currently, 90% of their Exclusive Brand Outlets have LED lights that use less energy. Garbage is separated to lessen the impact on the environment and is fed into a compost pit, which generates biogas for their kitchens, which exclusively offer vegetarian meals. In addition to recycling water, they have water-saving devices installed in every tap. The air quality and temperature of the area are further enhanced by the terrace garden and flowerbeds that line each walkway and balcony. They have air conditioners that never drop below 24°C during the hottest days, and the walls are built with insulation and air gaps to maximize energy efficiency.

WATER USAGE

Anita Dongre's Grassroot initiative focuses on sustainable and eco-friendly fashion. While specific water usage details for Grassroot may not be readily available, the brand emphasizes responsible practices, including water conservation, in its production processes to minimize environmental impact. 67% percent of the wastewater produced is recycled and used for lawn irrigation and toilet flushing.

WASTE GENERATION

Anita Dongre Foundation is working with many organizations that employ women who help to provide upcycle the fabric waste generated in the manufacturing process. This upcycled waste is used to create Indian quilts, carry bags, reusable masks, and other items that aid people and animals in need. Every month, approximately 2000 Kg of textile waste is upcycled

PACKAGING

Recycling the plastic used in packaging and managing textile waste is crucial to the process. HoAD is the first major fashion house in India to activate a comprehensive plastic waste management program. In partnership with Lucro Plast-E-Cycle Pvt Ltd, about 500 kg of plastic waste is recycled at HoAD every month.

We recycle and dispose of all of our electronic waste (also known as "E-Waste") in an environmentally responsible manner.

SOCIAL IMPACT

WORKING ENVIRONMENT

By creating jobs locally, the grassroots transformed villages into a viable unit. This avoided migration to already crowded cities with fast-paced lifestyles that are regrettably copying the west by consuming packaged food, using plastic excessively, and generally disregarding the environment.

The Designer Anita Dongre Foundation has provided jobs in rural Maharashtra for 200 formerly untrained women by training them. In six communities, the Anita Dongre Foundation currently manages and promotes these villages manufacturing units.



COMMUNITY INVOLVEMENT INITIATIVES:

The Designer Anita Dongre Foundation is committed to helping provide sustained employment to women through collaborations with organizations like Goonj and NEPRA

CHALLENGES

1. Persuading people that sustainability benefits the bottom line is the most frequent obstacle in the development of a sustainable firm utilizing biodegradable packaging materials and sustainable fabric all across
2. Achieving carbon neutrality takes time and concentration.

FINDINGS

1. Sustainable: Ecologically conscious, inventive and sustainable.
2. Eco-friendly: they work during the day and start and conclude early. They use very little energy in their clever designs. They handle garbage as well.
3. Handmade: promoting Indian handicrafts and giving craftspeople employment possibilities.
4. It is feasible to integrate luxury with sustainability. While some brands may not be able to achieve complete sustainability, others can, with careful resource management, extensive recycling and upcycling, and thrifting, significantly affect waste and pollution.

SUGGESTIONS

- Natural dyeing can be used by brands in place of artificial colours.
- Seed paper tags could be used in place of the standard paper tags.

SCOPE OF FUTURE STUDY

- The researcher can consider the concept of sustainably sourcing resources to reduce their impact on the environment.
- To research on integrating eco-friendly practices into the manufacturing process.
- A study on - reducing carbon emissions and switching to renewable energy.
- A study on - encouraging ethical production and sourcing to support regional communities.

CONCLUSION

Integrating sustainability into Indian luxury firms is an essential strategic requirement rather than just a fad. In order to be relevant and achieve long-term success, luxury businesses in India need to reflect the growing importance that consumers have on ethical and environmentally sustainable operations. Adopting a sustainable approach not only solves environmental issues but also improves brand recognition and draws in a base of ethical customers. It's clear that luxury and sustainability can coexist, and that doing so will be essential to Indian luxury firms' survival in an increasingly globalized market.

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A STUDY ON -ROLE OF TEXTILE INDUSTRY IN ENVIRONMENT POLLUTION: A CASE STUDY

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ABSTRACT

A man has three essential necessities in life: clothing, food, and shelter. Given that textiles and apparel satisfy man's second basic need, the global textile and apparel sector is certain to grow significantly. It is constantly expanding, which is driving up demand and contributing to global pollution. One of the sectors of the global economy that is thought to produce the greatest pollution is the textile sector. Every year, as "fashions" come and go, our closets get overflowing with endless amounts of apparel made of environmentally unfriendly materials. Textile mills use 20,000 chemicals to make garments, many of which are known to cause cancer. These pollutants account for one-fifth of all industrial pollution worldwide. The significant environmental impact of the textile industry is beyond the capacity of governments in many developing countries.

KEY WORD: Pollution, Textile industry, Environment, Health, Water, Air, Noise, Soil, Dyes.

INTRODUCTION

Numerous goods are produced by the Indian textile industry, such as home textiles, technical textiles, clothing, accessories, and textiles made of cotton and synthetic materials. The sector serves both local and foreign consumers. The main centres of India's textile industry are found in the states of Tamil Nadu, Gujarat, Maharashtra, and Punjab. The infrastructure and supply networks in these areas are well-established, which helps the business flourish.

Despite being essential to world economies, the textile industry nonetheless contributes significantly to environmental pollution. This study looks into the various ways that textile consumption and production affect environmental deterioration. It examines the heavy reliance on energy, chemicals, and water in textile production processes, illuminating the ensuing contamination of the air, water, and land. The study also looks at how textile waste is disposed of, particularly synthetic fibers that are not biodegradable, which frequently wind up in landfills or incinerators and pose serious environmental risks. A discussion of how fast fashion has contributed to the current environmental catastrophe is also included, with a focus on the textile industry's need for sustainable practices and circular economy models.

It is believed that one of a person's basic requirements is clothing. As a result, the need for stylish and fashionable clothing is being met, leading to a daily growth in the worldwide textile sector. One of the major issues facing many nations in the modern world is pollution, which is growing quickly and harming the ecology as a whole.

The textile production sector is often regarded as one of the world's most intricate, advanced, and established sectors. Through many stages of its production processes, the textile sector, an essential part of global manufacturing, considerably

contributes to environmental pollution. Every stage of the process, from the extraction of raw materials to the disposal of finished goods, includes environmental issues that need to be addressed. The industry's dependence on products that need a lot of resources, like cotton, frequently results in excessive use of pesticides and water, which negatively affects agricultural areas and ecosystems.

WATER POLLUTION

Water contamination occurs when a reservoir - such as a lake, river, ocean, etc. - becomes poisonous due to environmental or human pollution. Substances like chemicals or microbes may be the reason. Water contamination has wide-ranging effects. One in three people on the planet lack access to safe drinking water, according to UNICEF and the World Health Organization, and the UN estimates that 1.5 million people each year pass away from drinking water contamination.

Twenty percent of the wastewater produced globally is produced by the fashion sector, and textile dyeing is the second-largest global water polluter. Manufacturers utilize a lot of water to make apparel and household goods, and the wastewater that is left over has a bad impact on the environment. impacts soil/groundwater contamination, animals, humans, and ecology.

A 2019 World Bank report said that "some studies have indicated that around one-fifth of the world's water contamination is caused by the textile industry. The textile business uses a lot of water for procedures like scrolling, bleaching, and dyeing. The primary source of the pollution component is wastewater. Wastewater can lower oxygen concentrations, which can be detrimental to aquatic life and the aquatic ecosystem as a whole, if it is not treated before being added to the reservoir.



Approximately two thousand different chemicals are utilized in the textile industry to transmit anything from agents to dyes. The textile industry's extensive use of chemicals has significantly worsened the water pollution that is currently creating the water crisis and will eventually have an impact on the environment in the long run. Water that has been tainted, paints, fragrances, bleach, and other strong chemicals contaminate the environment, trap heat, and eventually lead to global warming.

Every day, millions of gallons of water are used by the textile industry. However, the issue is not with the heavy consumption! Before the waste is dumped into aquatic bodies, it is not cleaned to remove toxins. Lead, phthalates, organochlorines, PBDEs, and many other chemicals that seriously harm human health are typically found in waste water.

The most concerning area of concern is the liquid effluents that are emitted by the textile sector. This is due to the large amount of hazardous material that is discharged by liquid excrement. It is composed of heavy metals, formaldehyde (HCHO), and chlorine. In addition, a lot of people use it for daily activities or drinking, and it is dumped into water bodies that reach far places. Before being put into water bodies, they must be treated to lessen their hazardous content.

Contaminants in the natural environment are mixed to form pollution, negatively impacting the ecosystem. For example, noise, heat, and light all constitute forms of pollution. It's the pollutants that make pollution what it is. Various forms of pollution are putting our environment & lives at risk these days. Dye, printing, & finishing businesses are polluting the environment at an alarming rate. Despite its obvious appeal, colour may be harmful to the environment and other living things. To get the desired hue, we turn to various dyes and pigments. Natural dye has been the primary dye source for textiles in ancient times. As demand for coloured and printed textiles continues to grow, natural dyes seem unable to meet this need due to their inadequacy.

Consequently, natural dyes have been replaced on the market by synthetic hues. Synthetic dyes are used in many aspects of textile printing and dyeing nowadays. Conversely, artificial coloring poses a serious threat to both human health and the environment. Many dyes and chemicals, including sulphides (indigo and azoic), metal compounds, acidic acids, nitrates, complex compounds, enzymes, and other auxiliary chemicals, can produce toxic textile effluent. Businesses engaged in printing and dyeing generate wastewater that contains a diverse range of dyes or other colouring agents. They are ideal for transporting across lakes and rivers because to their high solubility in water.

Because there is a high demand for coloured and printed garments, we are unable to resist using these synthetic dyes during the dyeing process, despite their significant toxicity. This is a major problem. To stop the dangerous dye water from contaminating the surface of ordinary water, we must put mitigation measures in place. Finding a solution to this problem mostly depends on identifying and quantifying the compounds present in wastewaters.

Approximately 1.5 trillion Liters of water are utilized annually by the textile industry, which accounts for 2% of all drinking water extraction and 10% of all water used by all industries worldwide.

AIR POLLUTION

The production of garments is responsible for the second-largest industrial polluter and more than 10 percent of global carbon emissions.

Several air pollutants are caused by the textile industry, including:

- The sulphur dioxide and nitrous oxides produced during energy generation
- Volatile organic compounds, also known are produced during coating, wastewater treatment, curing, drying, and chemical storage.
- Chlorine, hydrogen sulphide, aniline vapours, and chlorine dioxide are produced throughout the dyeing and bleaching procedures

The gases that make up ambient air are complicated mixtures, with oxygen making up 20% and nitrogen making up 78% of the overall volume. Carbon dioxide takes up 0.033% of the entire volume, while argon makes up 1%. When discussing air pollution, experts point to the increase in particulate matter or gas concentrations in the atmosphere brought on by industrial emissions. Particulate matter includes fine dust, aerosols, fumes, and gases that can mix with air.

The main sources of various forms of air pollution are the spinning and weaving industries. Dust is produced in various quantities during the yarn and fabric production process. The ecology is nonetheless harmed by the wet processing industry, despite its low air pollution levels. The main source of air pollution in the printing and dyeing industries is steam produced from coal and water. The process of producing steam also releases carbon monoxide and sulphur into the atmosphere. Air pollution poses a threat to both humans and animals. A few effects of air pollution include pain, decreased vision, eye and respiratory diseases, and persistent fog.



Pollutants	Effects of human being	Sources
Sulphur dioxide	Irritates respiratory system and causes bronchitis	Boiler flue gas, rayon plant etc.
Aldehydes	Irritates all parts of respiratory system	Polyester plant
Chlorine	Causes lung irritation and irritation in eyes	Processing house
Carbon dioxide	Deprives body cells of oxygen and cause unconsciousness by CO combining with haemoglobin	Boiler house

SOIL POLLUTION

the textile industry produces solid waste. An estimated 90 million garments are thrown away annually in landfills across the globe. Consequently, the waste that is produced contaminates waterways.

Examples of contaminants that end up in landfills include the following:

- During the fiber processing, waste from packing, fiber trimmings, fiber lint, and fiber scraps are produced.
- Sludge that was either kept or squandered during the treatment of wastewater
- Used as chemical, flock, and dye containers while dyeing and finishing woven textiles.

Alkalis, residual colors, starches and cellulose (mostly soluble calcium and sodium salts), oil, silicate, and other pollutants (mainly soluble calcium salts) make up the majority of industrial effluents emitted from textile mills. These quickly expanding textile and dyeing businesses produce a lot of industrial effluent, which is frequently deposited untreated into the Amanishah drainage system or onto the ground surface due to a lack of affordable and efficient technologies for treating industrial wastewater. The quality of the soil and even subsurface water has declined as a result, and there is a chance that other biological resources along the discharged region may also be contaminated.

NOISE POLLUTION

In the textile sector, noise levels have been found to be generally high in most processing facilities, particularly in poorer nations. Employees and personnel that are exposed to noise over time are known to experience hearing loss and eardrum damage. Numerous additional issues are also brought on by it, including a decline in productivity, absenteeism, anxiety, annoyance, and changes in the workers' blood pressure and pulse rate. One of the biggest problems brought on by noise pollution is sleep disorders. Even though there are many serious health concerns caused by noise, these problems are not addressed because they are gradual and long-lasting, possibly because the discomfort and repercussions are not brought to light.

The auditory impact can cause hearing loss that is either short- or long-term. Both prolonged exposure to sound levels above 85 dBA and repeated exposure to such levels can harm hearing. On the other side, hearing loss resulting from extremely high sound frequencies cannot be corrected medically or surgically,

and wearing hearing aids may not give enough tolerance for amplification.

Non-auditory consequences include mental disease, social difficulties, and other psychological illnesses. The problem of deafness in the textile industry is not new, and among individuals who have worked in this profession, phrases like "weaver deafness" have made their way into the medical vocabulary.

CHEMICAL USAGE

The textile sector uses about 25% of the chemicals produced worldwide. Textile processing involves the use of up to 2000 distinct chemicals, many of which are known to be detrimental to human and animal health, particularly in textile wet processing. A portion of these substances evaporate, while others dissolve and end up in treatment water that is released into the environment or are trapped in fabric. The National Institute for Environmental Health Sciences (a division of the US Department of Health and Human Services) has released a list of the most widely used chemicals, some of which are utilized in the production of fabrics and connected to health issues in humans ranging from minor to serious.

TEXTILE WASTE IN LANDFILLS AND LOW RECYCLING RATES

Unwanted clothing is now disposed of differently, with goods being thrown away as opposed to donated. Because the methods needed to turn used clothing into virgin fibers are still developing, less than half of all old clothing is gathered for recycling or reuse, and just 1% of used clothing is recycled into new garments.

The average amount of clothes worn has declined, despite a twofold increase in apparel production between 2000 and 2015. Europeans use nearly 26 kilos of textiles and discard about 11 kilos of them every year. Used clothes can be exported outside the EU, but are mostly (87%) incinerated or landfilled.

The new approaches to address this issue include creating new clothing rental business models, designing products to facilitate recycling and reusing them (circular fashion), persuading customers to purchase higher-quality, longer-lasting clothing (slow fashion), and generally influencing consumer behaviour toward more environmentally friendly choices.



PHTHALATES

Phthalates are a class of chemicals, often known as plasticizers, that are used to soften PVC and are also used in the coating and printing of textiles, the production of artificial leather and rubber, and some colors. There are serious worries regarding the toxicity of phthalates, such as bis(2-ethylhexyl) phthalate (DEHP), which is reprotoxic (i.e., it reduces the fertilization rate and impairs the development of embryos in mammals), negatively affecting the viability and function of human gametes and embryos.

CLIMATE CHANGE

The different stages involved in the life of a garment, and each of them contributes to the problem of greenhouse gas (GHG) emissions, which hurt the environment. In recent research on the environmental impact of the global apparel and footwear industries done by Quantis, it was reported that these industries, currently, are responsible for 8 per cent of global GHG emissions, almost as much as that of the EU as a whole. The apparel industry alone generates 6.7 per cent of global greenhouse gas emissions, which is equivalent to around 3.3 billion metric tons of carbon dioxide. It is important to note that over 50 per cent of emissions are brought about by these 3 stages - dyeing and finishing, yarn preparation as well as fibre production.

The several phases of a garment's life, each of which adds to the issue of greenhouse gas (GHG) emissions, which have a negative impact on the environment. According to recent research conducted by Quantis on the environmental impact of the worldwide textile and footwear industries, these sectors currently account for 8% of global greenhouse gas emissions, which is nearly equal to the emissions of the European Union. 10% of the world's greenhouse gas emissions, or around 3.3 billion metric tons of carbon dioxide, come from the garment industry alone. It is significant to remember that these three processes - yarn preparation, fibre finishing, and dyeing and finishing - account for more than 50% of emissions.

HEALTH AND SAFETY PRECAUTIONS

Improperly treated textile effluents can pose a serious threat to both human and environmental health when released into the environment. It is common knowledge that several chemicals used in finishing, coloring, and preparation can be hazardous if handled improperly or carelessly. As a result, producers of chemicals and dyes have made substantial contributions to product preparation and presentation, guaranteeing that goods are easy to handle and safe, and that packaging is recyclable or easily disposed of. Electrical equipment needs to be utilized within the manufacturer's recommended bounds and installed in compliance with current standards. Since there is always some risk involved in operating machinery, management has an obligation to make sure all employees are properly trained and knowledgeable about all.

STRUCTURE OF THE TEXTILE INDUSTRY

The Textile Industry's, The bulk of chemicals used in the textile industry are used in "wet processing," which includes fabric finishing, dyeing, washing, and printing. Water used in textile dyeing and finishing mills is significantly higher—up to 200

tons are used for each metric ton of textiles produced. Just a small percentage of the chemicals used in the production of textiles are potentially dangerous, while the majority are not. However, because there are so many chemicals used in the textile industry, a sizable amount of hazardous compounds are utilized in total.

OBJECTIVES

- To identify the role of textile industry in environment pollution
- To identify the components of environmental pollution

RESEARCH METHODOLOGY

In order to perform a description analysis, this case study employed secondary data. A variety of sources, including research papers, articles, journals, websites, electronic journals, and various report, files, were used to compile the data.

DATA ANALYSIS

The primary themes pertaining to the textile industry and environmental contamination were examined in the chosen studies' content analysis. Analysis of soil, air and noise pollution, global warming, and water deterioration. The influence of textile waste generated by the textile industry on pollution.

FINDINGS

In a number of ways, the textile sector seriously contributes to environmental pollution:

1. **Water Pollution:** Overall, the industry contributes 20% of the water pollution in the globe, which is equivalent to 110 million people's annual water needs. The production of textiles uses a lot of water and releases wastewater that is contaminated with chemicals into bodies of water. Groundwater, rivers, and streams can become contaminated by dyes, bleaches, and other chemicals used in the dyeing and finishing processes.
2. **Soil pollution:** Improper waste disposal or runoff can introduce chemicals and residues from the textile industry, such as dyes and other processing chemicals, into the soil, compromising ecosystems and soil quality.
3. **Air Pollution:** Global warming is mostly caused by the textile sector, which emits 10% of the world's greenhouse gases. The production of textiles releases a number of pollutants into the atmosphere, such as greenhouse gases, particulate matter, and volatile organic compounds (VOCs). Air pollution is a result of burning fossil fuels for energy as well as chemicals emitted during dyeing and finishing procedures.
4. **Waste generation:** The sector produces a significant quantity of trash, such as packaging materials, fabric scraps, and production byproducts, which frequently wind up in landfills and exacerbate environmental problems.
5. **Energy Consumption:** A large amount of energy, mostly from non-renewable sources, is needed for the manufacture of textiles. High energy use increases the industry's overall environmental impact and carbon emissions.



The textile sector is continuously working to embrace sustainable practices, such lowering energy usage, investigating alternative materials, employing eco-friendly dyes, and putting water recycling systems in place to lessen its environmental impact.

SUGGESTIONS

- Re-evaluate local natural raw materials,
- To bring ancient culture back to the centre of knowledge

SCOPE OF FUTURE STUDY

- To control the textile industry, lessen its negative effects on the environment.
- A research on the textile industry's goal of having zero carbon emissions by 2050.
- A study on – organic farming reduces the impact of textile industry on climate change
- Putting circularity into practice from concept to production to final customer

CONCLUSION

The production of textiles requires a lengthy series of steps that result in a large amount of waste and a high resource consumption, including fuel, water, and other chemicals. The worldwide textile sector is a major source of pollutants that are continuously harming the environment beyond belief. In the long term, it renders the land, air, and water unusable and unproductive due to pollution. Reducing the toxins released by the textile sector has become imperative. The textile industry's and its raw material manufacturing units pollution of the air, water, and land has become a major environmental issue. It has put the lives of many other species on Earth, including humans, at jeopardy. utilizing organic raw materials

Manufacturers ought to be contacted. There is an urgent need to go in this direction. The multiple steps in the textile manufacturing process harm the environment in a number of ways, including continuous and comparatively large greenhouse gas emissions, water extraction, the release of toxins from pesticides and herbicides used to cultivate cotton into our ecosystem, and many more consequences. It is crucial that the worldwide apparel sectors employ eco-friendly materials for clothing production, give up on or utilize less fossil fuels for energy generation, and switch to renewable energy sources in order to solve these issues before they become serious ones. An eco-friendly product is one that is produced, utilized, or disposed of in a way that substantially lessens the harm it would otherwise cause to the environment. In addition to assisting.

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A REVIEW PAPER ON CIRCULAR ECONOMY AND FASHION INDUSTRY

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ABSTRACT

The changing environment of circular fashion within the larger fashion industry is explored in this review study. The paper examines its emergence, fundamental ideas, and implications, synthesizing previous research to provide a thorough summary. It advances a better knowledge of how circularity is changing the dynamics of the modern fashion industry by examining sustainable practices, obstacles, and innovations.

INTRODUCTION

Within the fashion industry, circular fashion is becoming more and more popular as a sustainable strategy. It emphasizes responsible manufacture, recycling, and upcycling to reduce waste and extend the life of garments. In addition to choosing classic pieces, this trend encourages customers to take part in clothing donation or resale programs, which helps to create a more socially and environmentally responsible fashion industry.

The circular fashion trend, which emphasizes sustainability and resource efficiency, marks a paradigm shift in the fashion business. The guiding concepts of this approach are recycling, upcycling, and responsible production; they encourage a departure from the conventional "take, make, dispose" linear model. This trend seeks to lessen its influence on the environment and shift the sector in the direction of a more sustainable future by encouraging longevity, mindful consumption, and circular practices.

OBJECTIVES

- 1) To evaluate the differences between the circular economy and traditional linear fashion industry practices
- 2) To comprehend how fashion industry is now implementing circular economy practices
- 3) To explore developments, methods and technological advancements that support sustainable fashion

RESEARCH METHODOLOGY

The methodology employed in this literature review on circular economy and the fashion industry involves a systematic search of scholarly databases such as research papers, articles, journals, websites, electronic journals, and various report, Google Scholar. Keywords like "circular economy," "fashion industry," and related terms were used to identify relevant articles and academic papers. Inclusion and exclusion criteria were established to ensure the selection of studies that specifically address the intersection of circular economy

principles and the fashion sector. The review encompasses a comprehensive analysis of peer-reviewed articles, books, and reports published within the last decade, with a focus on empirical research and theoretical frameworks that contribute to understanding the challenges and opportunities of implementing circular economy practices in the fashion industry. The aim is to provide a nuanced synthesis of existing knowledge and identify gaps for future research in this critical area.

Using a systematic search of academic databases and appropriate search terms, relevant articles and academic papers were found for this literature study on the circular economy and the fashion business. To make sure that only studies that explicitly address the relationship between the fashion industry and the concepts of the circular economy are chosen, inclusion and exclusion criteria were developed. With an emphasis on empirical research and theoretical frameworks that help comprehend the opportunities and challenges of implementing circular economy practices in the fashion industry, the review includes a thorough analysis of peer-reviewed books, reports, and articles published within the last ten years. In order to fill in the gaps for further research in this important field, the goal is to present a nuanced synthesis of the body of current knowledge.

LINEAR FASHION ECONOMY

The conventional approach, in which raw materials are gathered, processed, and manufactured into goods that people use before throwing them away as garbage, all without considering the effects these products would have on the environment. Profit is given precedence above sustainability, and the products are designed to be discarded after usage. [2]

The economy that is linear, the "linear economy model" has been the most widely accepted economic model since the industrial revolution in the 18th century. Raw resources were widely available for low prices during the industrialization era, and because of emerging technologies, the linear economy



model predominated in business. In actuality, this model reflected the rise in material production, employment, urban development, standard of living, profit, and demand for all commodities.[4]

It has adverse side effects, such as economic loss, environmental destruction, and threats to human society. To address these adverse consequences from fashion's linear system, governments and business leaders are advocating the societal need for a shift from the linear economy to the circular economy. [11]

The linear economy is based on a traditional linear business model and follows a "take-make-waste" scheme. Resources are taken from their source and transformed into products manufactured for consumption. The residuals of this consumption later accumulate in a landfill or are incinerated. The way a linear economy deals with raw materials puts pressure on scarce resources and has little concern for environmental impact. Businesses produce and sell as many products as possible with profit as their only goal, leaving many economic opportunities untapped. The "take-make-waste" paradigm of the linear economy is based on a conventional linear business model. Products that are intended for human use are created by extracting resources from their natural state. Later, the leftovers from this consumption are burned or dumped in a landfill. When it comes to raw materials, a linear economy uses limited resources and pays little attention to how its actions may affect the environment. Businesses create and market as many goods as they can with the sole intent of making a profit, therefore squandering several business possibilities. [3]

This linear system has substantial detrimental effects on society at the local, regional, and worldwide levels. It wastes resources, misses out on economic possibilities, pollutes the environment, and damages ecosystems.[5] The fast fashion industry is a major source of pollution that has detrimental effects on both terrestrial and aquatic environments. These effects include habitat degradation, the growth of chemicals and microplastics in waterways, and the escalating effects of climate change due to greenhouse gas emissions from human activity. [6] The poor quality of fast fashion clothing contributes to the limited lifespans of garments, which often end up decomposing slowly in landfills or being incinerated. In addition to degrading in landfills or being incinerated, fast fashion clothing has also become a notorious source of microplastics in marine environments as the cheap, plastic-based materials shed fibers that make their way to the oceans. [6] Workers — primarily young women — are subjected to hazardous working conditions while earning unlivable wages, despite the companies pulling in massive profits.[6]

CIRCULAR ECONOMY AND FASHION INDUSTRY

The foundation of a circular economy is the idea of planning out waste and pollution, reusing materials and goods. Within the fashion business, "circular fashion" refers to a regenerative methodology that minimizes waste, pollution, and the use of natural resources in the design, production, and consumption of garments and fabrics. Designing for durability, utilizing

sustainable materials, recycling waste, and switching to renewable energy sources throughout production are all essential elements of circular fashion. [7]

Beginning with the raw resources needed to produce fiber and ending with the product's last stages of life, circular fashion addresses sustainability from all angles. [8]

Patagonia, a leader in sustainable clothes, is a prime example of a brand operating in the circular fashion industry. Patagonia's business strategy incorporates circular ideas as part of its commitment to reduce its environmental impact. The company's primary goal is to reduce waste and prolong the life of clothing by producing long-lasting, high-quality items. [7] The concrete advantages of implementing sustainable practices for the environment, Patagonia's efforts in the circular fashion industry have established a standard for other firms to meet. [7]

The fashion industry's various segments must work together to achieve circularity. These include companies that create raw materials, textiles, clothing, and retail. Developing a circular fashion sector also requires consumer and government input. [8]

The distinction between materials that degrade naturally and those that don't is one of the fundamental concepts of circular fashion. This separation occurs when producers employ both kinds of materials in a single product, but they can still be separated during the reprocessing and renewal phases. [8]

INNOVATION

The fashion industry has seen a rise in eco-friendly ideas and workable solutions to mitigate its environmental impact in recent years. In response to growing customer awareness of sustainability, brands are aggressively implementing eco-friendly procedures and technology. [10]

In an attempt to reduce the impact that their purchases have on the environment, consumers of today are very selective about the companies with whom they do business. Over the previous five years, there has been a more than 70% increase in web searches for eco-friendly products in the sustainability trend, slow fashion movement, and ethical fashion categories. Three out of five people now say that consideration for the environment is a major consideration when making purchases, according to McKinsey. This is starting to show up in developments in the apparel industry's technology, as new sustainable fashion technologies are being developed with the goal of addressing the root causes of the sector's problems. Innovations in sustainable fashion are changing recycling and production. [9]

Using more sustainable materials and fabrics is one of the biggest green advancements. Because organic materials have less of an impact on the environment than conventional materials, brands are gravitating towards hemp, bamboo, Tencel, and organic cotton. [10]

An effective way to address the waste issue in the fashion industry is the growing popularity of circular fashion projects.



To increase the lifespan of apparel, brands are introducing second-hand marketplaces, clothing rental services, and take-back programs [10]

As an eco-friendly substitute for conventional screen-printing techniques, digital printing is becoming more and more popular. Because digital printing allows for exact ink application, it consumes less ink and uses less water. [10]

Brands are placing greater emphasis on building sustainable supply chains. They are partnering with suppliers and manufacturers that follow ethical and eco-friendly practices. Transparent supply chains allow brands to trace the origin of raw materials, ensuring they meet sustainability standards and fair labor practices. [10]

3D Virtual sampling: Physical samples were previously required for the design process as well as the purchasing and selling lifecycle. [9]

Alternative textile: Alternatives are being made available via the development of sustainable technologies for clothing and textiles that are reusable, regenerable, recyclable, and sourced ethically. [9] Designers like Stella McCartney have pioneered closed-loop and sustainable business models using innovative materials such as bio-based fur. [9]

Automation and fashion on demand: Clothes are ordered, then produced, as opposed to being made and then sold. While the cost of manufacturing single and small batch production is higher today [9]

BENEFITS

The fashion sector can drastically lessen its ecological footprint and help create a brighter future by adopting circular fashion, which has several environmental advantages that complement the goals of planting trees. [7]

1. **Reduced waste and pollution:** The goal of circular fashion is to increase the lifespan of clothing by using creative design, repair, and recycling techniques. Longer clothing wear durations significantly lower the quantity of textile waste that is disposed of in landfills, can reduce the amount of dangerous chemicals released into the environment and rivers. [7]
2. **Conservation of natural resources:** Circular fashion lessens the need for new production by utilizing recycled materials and extending the life of existing garments, which saves energy and water resources. [7]
3. **Decreased carbon footprint:** The utilization of renewable energy sources, such as solar or wind power, in production is also encouraged by circular fashion. The garment business can lessen its carbon footprint and contribute to international efforts to mitigate climate change by moving away from fossil fuels. [7]
4. **Support for biodiversity and ecosystem health:** Considering that these substances decompose more readily in the environment, this strategy also aids in the reduction of microplastic pollution. The objectives of planting trees and other environmental organizations are in line with the need to reduce microplastic

contamination, which poses a serious threat to aquatic ecosystems and the larger environment. [7]

CONCLUSION

This study concludes by highlighting the complex relationship that exists between the circular economy and the fashion industry, as well as the increasing significance of incorporating circular economy ideas inside the fashion sector. Based on available data, it appears that adopting circularity in the fashion industry is essential for sustainable growth. To ensure that circular strategies are effective, education and awareness initiatives are necessary to promote responsible consumption and disposal habits. In order to convert the existing linear model into a circular one and eventually help the fashion industry move toward a more sustainable and responsible future, the research urges for ongoing investigation and concrete actions.

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TRENDS OF FEMALE LABOUR FORCE PARTICIPATION RATE A SECONDARY ANALYSIS BASED ON PLFS SURVEY

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ABSTRACT

Migration shapes human settlement patterns and contributes to economic growth. It also forms human capital. Labour force participation rate, which includes the number of employed individuals, is influenced by gender. Males have a higher share of labor force participation than females. Recent studies show an increasing trend in female labour market employment, with the ILO estimating a 164 million labour force, accounting for half of the century's total migration. This paper examines the changing focus of the labour market, focusing on female labor force trends over seven years, using data from PLFS. The results postulates that the unemployment rate among women had declined from 7 percent to 4 percent and also the rate of female labour force participation had increased creating a positive trend in the area of labour market employment.

JEL Classification: B25, B27, B29

KEYWORDS: International labour organisation, Gross Domestic Product, women labour force participation, Periodic labour force survey, Average annual growth rate.

INTRODUCTION

Large-scale migration is a global trend driven by psychological, social, economic, and political factors, impacting the labor force and employability, affecting the global labor market. The National Sample Survey Organisation's 2009-10 figures show a significant decline in female labor force participation, with a 10.1% decrease from the previous year, compared to a 22.6% rate in 2010. The male population participation rate has fallen by 3.4%, attributed to economic, social, and political constraints in the labor force mechanism and employment trend.

The development process, characterized by the movement of workers from agriculture to manufacturing and urbanization, has significant implications for women's role in society, particularly in the labor market. Boserup's work on women's role in economic development highlights the importance of reducing gender discrimination in the labor market and promoting women's participation. However, the relationship between women's engagement in the labour market and broader development outcomes is complex. Women's employment may be driven by necessity, increasing educational attainment, changing societal norms, and available employment opportunities. Increased participation is often observed during economic crises, but often in low-paid and low-productivity jobs. Measurement of women's work in developing countries is often overlooked, undervalued, and underreported, as they often contribute to non-market activities like caregiving.

Women's labour force participation has remained stable at around 52% globally from 1990 to 2010, but varies significantly across developing countries and emerging economies. In the Middle East, North Africa, and South Asia, less than one-third of working-age women participate, while East Asia and sub-Saharan Africa have two-thirds. Men's participation rate has declined from 81% to 77%, mainly due to increased education enrollment. South Asian countries, such as India, have seen falling female labor force participation rates due to rapid economic growth and fertility decline. Bangladesh and Pakistan have seen increased female participation rates, while Sri Lanka has remained stagnant.

This article tries to analyse the performance of female labour force participation rate in the organised labour market also assessing the factors which govern the functioning of female labour force mechanism within an industrial framework.

OBJECTIVES OF THE STUDY

1. To study about the concept of female labour force participation rate
2. To analyse the factors behind the female labour force participation in India
3. To analyse the trend of male and female labour force participation rate in India based on PLFS data

LITERATURE REVIEW

The literature on female labour supply and participation is extensive, focusing on various determinants such as individual and household characteristics, societal norms, cultural attitudes,



education level, and urbanization. The basic static labour supply model assumes competitive labour markets and income and substitution effects. Women's expected wage is the opportunity cost of their time in paid employment, with higher wages having a substitution effect and countervailing income effects. Increased unearned income, such as through social transfers, only exerts an income effect on women's labour supply decisions, potentially leading to a potential withdrawal from the labour market. Unitary and collective household models have been used to explain labour supply behavior and women's participation in economic activities.

1. Kapsos, Silberman, and Bourmpoula's 2014 ILO study highlights the significant role of female labor force participation in an economy's GDP growth, arguing that female labor force members enjoy equal privileges and benefits as male workers.
2. Fatima and Sultana (2009) and Özsoy and Atlama (2009) highlight the importance of higher female labor force participation in both developed and developing economies. They argue that increased female employment leads to poverty reduction, reduced fiscal burden, and more inclusive development.
3. Empirical studies from developed countries and multiple countries conducted by Boserup, 1970; Durand, 1975; Goldin, 1990; Mammen and Paxson, 2000; Mincer, 1985; Pampel and Tanaka, 1986; Schultz, 1991; Tam, 2011 show a U-shaped relationship between female labor force participation and economic development. This hypothesis suggests that participation declines initially and increases later as a country develops, due to factors like sectoral shifts, urbanization, socioeconomic transformation, education, fertility, and income and substitution effects.
4. According to Ejaz, 2007; Psacharopoulos and Tzannatos, 1989; Tansel, 2001 Education significantly influences female labor force participation, according to human capital theories. Higher education leads to higher participation and increased productivity. The static labour supply model explains this effect based on the substitution effect and income effect. Higher education increases potential earnings, increasing the opportunity cost of not working and reducing working hours. Studies show higher returns for women. Higher human capital levels lead to higher wages, increasing women's market participation.

THEORETICAL FRAMEWORK

There are various theories that attempt to explain and understand the participation of women in the labor force. These theories often consider historical, economic, sociocultural, and institutional factors. Here are some key theories:

Human Capital Theory: This theory suggests that individuals, including women, invest in education and training to enhance their productivity in the labor market. The more skills and education a person acquires, the higher their earning potential. Human capital theory has been used to explain changes in women's participation in the workforce as a result of increased educational attainment.

Gendered Division of Labor: Rooted in sociological perspectives, this theory argues that society assigns specific roles to men and women based on gender norms and expectations. Historically, women have been assigned domestic and caregiving roles, while men have been associated with paid work. Changes in the gendered division of labor are often linked to shifts in cultural and social norms.

Dual Labor Market Theory: This theory proposes the existence of two distinct labor markets: the primary market with well-paid, stable jobs, and the secondary market with lower-paid, less stable employment. Women have often been concentrated in the secondary labor market, facing challenges such as lower wages and job insecurity. Changes in the structure of the labor market can influence women's participation.

Feminist Theory: Various feminist perspectives emphasize the role of patriarchy and gender inequality in shaping women's labor force participation. Feminist theories argue that women's work has been undervalued and that gender-based discrimination, both overt and subtle, has limited women's opportunities in the workforce. **Socialization and Role Expectations:** This theory explores how societal expectations and gender roles shape individuals from a young age. Traditional gender roles may influence career choices and work preferences, impacting women's participation in certain industries or occupations.

Institutional Theory: This perspective looks at the influence of formal and informal institutions on women's participation in the labor force. Institutional factors such as family policies, workplace practices, and legal frameworks can either facilitate or hinder women's access to employment and career advancement.

Globalization and Economic Restructuring: Changes in the global economy, including increased globalization and economic restructuring, can impact women's employment opportunities. These changes may lead to the expansion of certain industries that traditionally employ women, or they may result in the outsourcing of jobs, affecting both men and women in specific regions.

CONCEPT OF FEMALE LABOUR FORCE PARTICIPATION

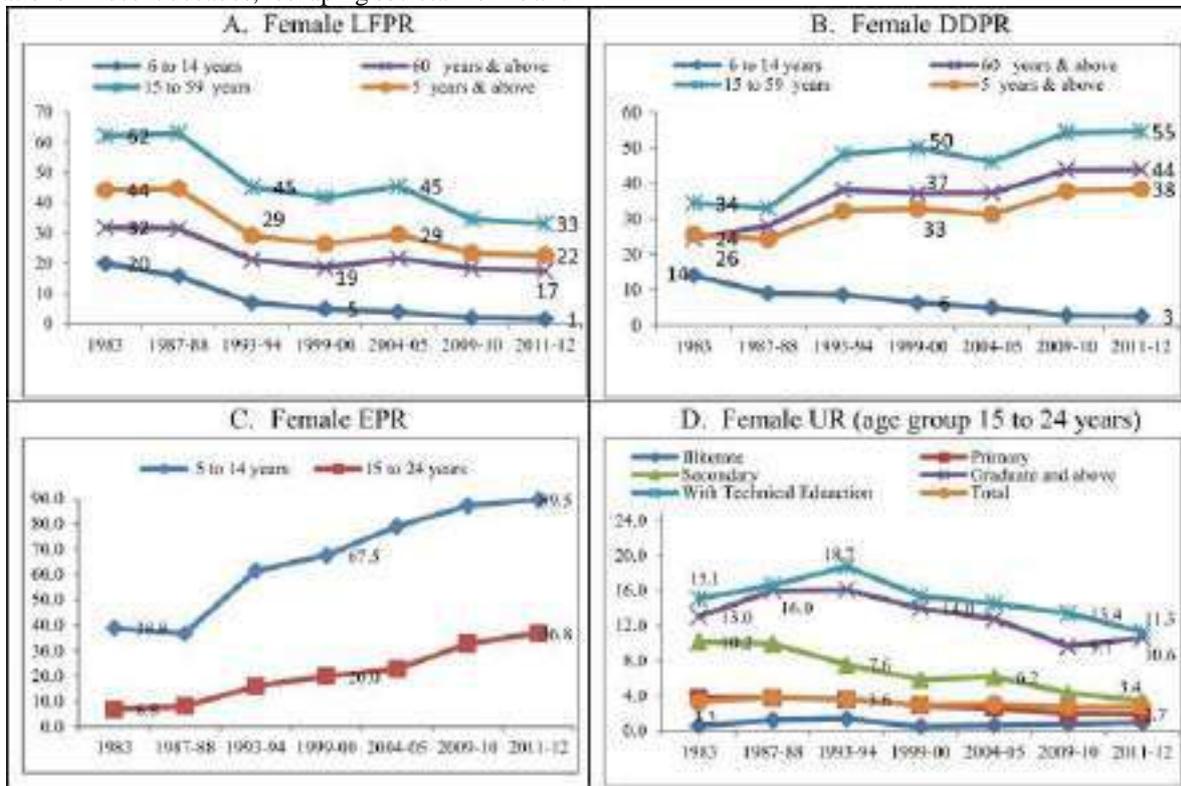
The term "female labor force" refers to the portion of the overall female population that is economically active, participating in paid employment or seeking employment. This includes women who are engaged in various forms of work, such as formal employment, self-employment, part-time work, or temporary work. The female labor force encompasses women across different industries, professions, and sectors of the economy. Understanding the female labor force is essential for analyzing and addressing issues related to gender equality, economic empowerment, and workforce participation. It involves examining factors such as the labor force participation rate, occupational distribution, wage gaps, and other aspects of women's engagement in the workforce. Efforts to promote gender equality often focus on creating an inclusive and



supportive environment for women in the labor force, addressing barriers to their participation, and advocating for equal opportunities and treatment in the workplace. The concept of the female labor force is a crucial component of discussions surrounding women's rights, empowerment, and socio-economic development.

contributing to economic growth. Historically, women were predominantly confined to traditional roles within the household, but the dynamics have shifted as more women have entered the workforce. The female labor force participation rate, a key metric in assessing women's involvement in economic activities, reflects the progress made and the challenges that persist.

Female labor force participation has undergone significant transformations in recent decades, reshaping societal norms and



Source: <https://www.sciencedirect.com/science/article/abs/pii/S0305750X17301663>

Historical Perspective

In the past, societal expectations and gender stereotypes limited women's opportunities outside the home. However, the 20th century witnessed a gradual shift as industrialization and social movements paved the way for increased female participation in the workforce. During World War II, women took on roles traditionally held by men, demonstrating their capability and challenging preconceived notions about gender roles.

Factors Influencing Female Labor Force Participation:

Several factors contribute to the variations in female labor force participation rates across countries and regions. Educational attainment, societal attitudes, legal frameworks, childcare provisions, and cultural norms all play crucial roles in shaping women's choices regarding work.

- **Education:** Educational opportunities for women have expanded significantly, empowering them with the skills and knowledge needed to excel in various fields. Higher education levels correlate with increased workforce participation, as women are better equipped to pursue diverse career paths.

- **Societal Attitudes:** Changing societal attitudes towards women in the workforce have been instrumental in increasing female labor force participation. Efforts to break down gender stereotypes and promote inclusivity have fostered an environment conducive to women pursuing careers.
- **Legal Frameworks:** Legislative measures promoting gender equality and prohibiting discrimination have positively influenced female labor force participation. Laws ensuring equal pay, maternity leave, and protection against workplace discrimination contribute to a more equitable work environment.
- **Childcare Provisions:** Accessible and affordable childcare options are pivotal in enabling women to balance work and family responsibilities. Adequate support allows women to participate in the workforce without compromising their roles as caregivers.
- **Cultural Norms:** Deep-rooted cultural norms can either facilitate or impede women's entry into the labor force. Societies that value gender equality and challenge traditional roles tend to have higher female labor force participation rates.



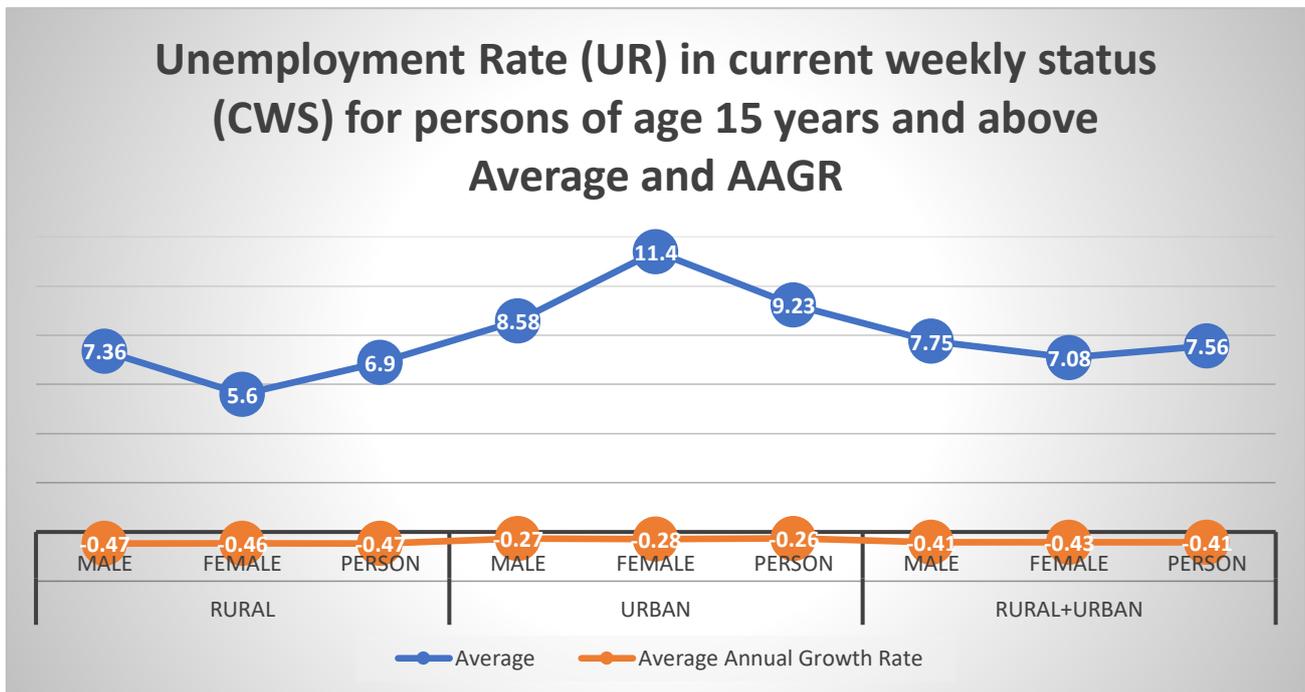
METHODOLOGY

This paper makes use of secondary data analyses comparing the average annual growth rate of unemployment rate and work

force participation rate of male and female section for a period from 2017-18 to 2022-2023. The data was compiled based on the reports from the PLFS survey.

Trends In Labour Force Participation Rate Over The Years

Unemployment Rate (UR) in current weekly status (CWS) for persons of age 15 years and above									
All-India									
Indicator	Rural			Urban			Rural+Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
2017-18	8.7	7.5	8.4	8.7	12.7	9.5	8.7	9	8.7
2018-19	8.6	7.3	8.3	8.8	12.1	9.5	8.7	8.7	8.7
2019-20	8.7	5.5	7.8	10.5	12.4	11	9.3	7.3	8.8
2020-21	7.1	4.8	6.5	9.4	12.2	10.1	7.8	6.6	7.5
2021-22	6.5	4.5	6	7.8	9.9	8.3	6.9	5.8	6.6
2022-23	4.6	4	4.4	6.3	9.1	7	5.1	5.1	5.1
Average	7.36	5.6	6.9	8.58	11.4	9.23	7.75	7.08	7.56
Average Annual Growth Rate	-0.47	-0.46	-0.47	-0.27	-0.28	-0.26	-0.41	-0.43	-0.41



Unemployment Rate Trends:

Rural-Urban Disparity: In general, the urban unemployment rates are higher than rural rates across all years. This trend is consistent for both males and females.

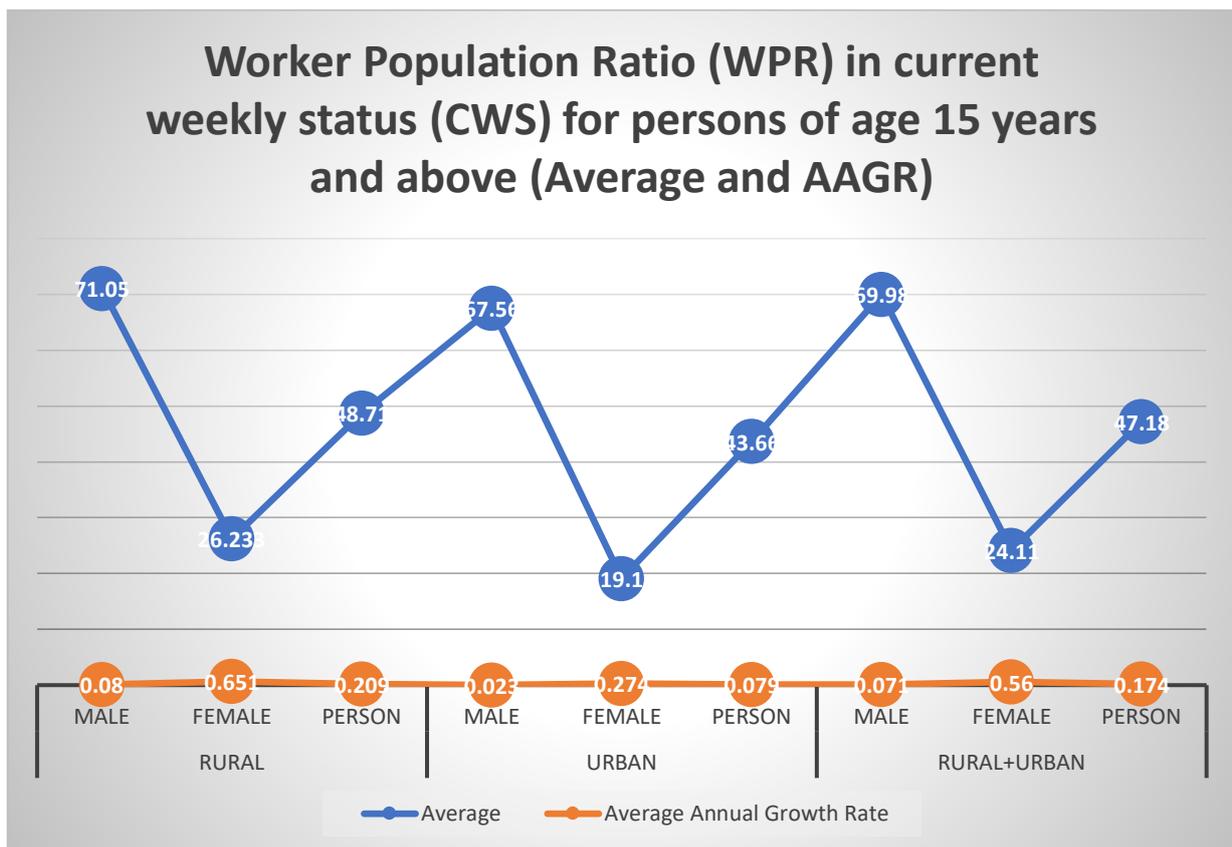
Overall Trends: The overall unemployment rates (Rural+Urban) have shown a declining trend over the years. There is a significant decrease in the unemployment rates from 2017-18 to 2022-23.

Average Unemployment Rates: Average Rates: The average unemployment rates for males, females, and persons are presented for rural, urban, and rural+urban areas. On average, the highest unemployment rates are observed for females, especially in urban areas.

Average Annual Growth Rate (AAGR): Negative AAGR: The negative AAGR values for each category indicate an overall decline in unemployment rates over the specified years. The decline is more pronounced for females, both in rural and urban areas.



Worker Population Ratio (WPR) in current weekly status (CWS) for persons of age 15 years and above									
All-India									
Indicator	Rural			Urban			Rural+Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
2017-18	69.1	20.1	44.8	67.7	17.1	42.6	68.6	19.2	44.1
2018-19	69	20.9	45	67.2	17.4	42.7	68.4	19.8	44.3
2019-20	70.1	26.7	48.4	66	19.4	43	68.8	24.4	46.7
2020-21	71.2	28.6	50	66.8	19	43.1	69.9	25.7	47.9
2021-22	71.7	27.9	49.9	68.4	19.9	44.6	70.7	25.6	48.3
2022-23	75.2	33.2	54.2	69.3	21.8	46	73.5	30	51.8
Average	71.05	26.233	48.71	67.56	19.1	43.66	69.98	24.11	47.18
Average Annual Growth Rate	0.08	0.651	0.209	0.023	0.274	0.079	0.071	0.56	0.174



Average WPR:
 Rural: 71.05% for males, 26.233% for females, and 48.71% overall.
 Urban: 67.56% for males, 19.1% for females, and 43.66% overall. Rural+Urban: 69.98% for males, 24.11% for females, and 47.18% overall.

Average Annual Growth Rate (AAGR):
 The AAGR indicates the average percentage change in WPR over the given years. Notable increases are observed in the rural male and female categories, urban female, and overall rural and urban categories. Rural male AAGR is 0.08%, rural female AAGR is 0.651%, and rural overall AAGR is 0.209%. Urban male AAGR is 0.023%, urban female AAGR is 0.274%, and urban overall AAGR is 0.079%. Rural+Urban male AAGR is

0.071%, rural+Urban female AAGR is 0.56%, and rural+Urban overall AAGR is 0.174%.

LIMITATIONS OF THE STUDY

1. The study was done purely on the basis of secondary data and there stands no consideration from primary data analysis
2. The random effect and Hausman test were not feasible due to lack of primary data analysis.
3. The study was unable to conduct a comparative analysis of pre and post-Covid due to the lack of a suitable data source.

CONCLUSION

Thus, the main findings include that the Rural areas consistently show higher WPR compared to urban areas. The



female WPR is lower than the male WPR across all categories and years. The AAGR values indicate the average annual growth rate of WPR, highlighting the rate of change in workforce participation. The unemployment rate has consistently decreased over the years, indicating improved employment opportunities. The decline is observed in both rural and urban areas and across genders. Rural areas generally show lower unemployment rates compared to urban areas. The negative AAGR values suggest a steady annual decline in unemployment rates, reflecting positive trends in the labor market.

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THE ROLE OF WOMEN EMPOWERMENT AND DOMESTIC PROBLEMS

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ABSTRACT

Most often under the term domestic violence, people denote physical or sexual coercion though this is a reasonable definition, domestic violence is a significantly wider term that requires clarification. Domestic violence is a narrower term for domestic abuse a behaviour pattern which implies controlling or dominating one person who is inmate relationship. It may have physical, emotional, sexual and economic aspects, sometimes combining several of them simultaneously. Most of all, it refers to emotional domestic violence, because they are more difficult to determine than physical or sexual abuse. Domestic violence refers not only to women or children. Men suffer from it as well. Mostly emotionally though cases of physical violence are not rare as well. The main fact to comprehend about an abusive relationship is that partner who acts as an aggressor will not change, and will not stop their insulting behaviour. The best option for people who suffer from a domestic violence is to break relationships. Domestic violence remains a significant social problem in many countries all over the world. Some of its forms are obvious (physical or sexual violence) others can be emotional or financial violence. Emotional abuse involves humiliating, threatening and manipulating while financial violence can express itself in a partner limiting the economic freedoms of the counterparts. In spite of the attention that has been paid to violence against women in recent years, the research endeavour is relatively young and much remains unknown. There really is no one field focused on violence against women per se. Many of the studies in this newly emerging field of research on violence against women are at an early stage of scientific rigor. The methodological weakness in the research on battering and rape has been discussed at length in other documents. Yet in spite of all the shortcomings, a lot has been learned about the extent of violence and about the effect on victims.

KEYWORDS- *physical, emotional, sexual and economic aspects, humiliating, threatening and manipulating*

DEFINITIONS

It is pattern of abusive behaviours that occurs between family members and /or inmate partners to gain power and control. It can take the form of physical, sexual, psychological, or economic abuse. It occurs in every country, in families of all races, cultures, religions and income levels.

Stay reasons of the victims involve

1. For sake of children
2. Loyalty to abuser
3. Economic dependence
4. Love
5. Society pressure

Globally the victims of domestic violence are overwhelming women and women tend to experience more severe forms of violence. Domestic violence is among the most underreported crimes worldwide for both men and women. Due to social stigmas regarding male victimization men face an increased likelihood of being overloaded by healthcare providers. In abusive relationship, there may be cycle of abuse during which tension rises and an act of violence is committed followed by a period of reconciliation and calm victims of domestic violence may be trapped in domestic violent situations through isolation, power and control, cultural acceptance, lack of financial resources, team shame or to protect children. Children who live in a household with violence often show psychological problems from an early age. Women's violence is often reactionary, shaped by gender roles and manifests itself differently than men's violence claim that men are battered as often as women do not take into account the fact that in a high

percentage of cases, women's use of violence is preceded by severe acts of violence by their partners.

CHARACTERS OF DOMESTIC VIOLENCE

1. Regular criticism, name calling, put downs
2. Minimized or belittled feelings
3. Unsafe or fearful feelings
4. Hitting, punching, slapping, kicking, showing strangling or biting
5. Destroying or stealing personal belongings
6. Abusing or threatening children and grandchildren
7. Use of intimidation or manipulation as a means of control over a victim or his/her children
8. Isolation from friends, family and community
9. Threats of "outing" or criticism of sexual identity
10. Threats to hurt the victim's friends, family or pets
11. Control of access to money or transportation.
12. Representation for a victim going where he/she wants when he / she wants.
13. Deportation or immigration status threats
14. Prevention from working or attending school
15. Harassment at school or work
16. Public or private humiliation
17. Denial of food, clothing sleep, etc.
18. Practice or accusations of affairs
19. Forceful or unconsensual sexual acts
20. Use of weapons to hurt or threaten



CAUSES

- Dissatisfaction with dowry and exploiting women for more of it
- Arguing with partner, referring to have sex
- Neglecting children
- Going out of home without telling the partner
- Not cooking properly or on time
- Indulging in extra martial affairs
- Not looking for in-laws
- Infertility in females, lead to assault by the family members
- Desire of male child
- Alcoholism of spouse
- More income of working women than her partner
- Her absence in house till late night
- Abusing and neglecting in laws
- Being more forward socially

EFFECTS

- Women are physically tortured
- Women suffers from chronic fatigue
- Sexual dysfunction , muscle tension
- Children witnessing domestic violence at home often believe that they are to blame
- They live in a constant state of fear
- They are 15 times more likely to be victims of child abuse
- They too suffer from physical, behavioural, emotional dysfunction
- It has an adverse effect on society
- At one hand where it acts as an inspiration and ray of hope of other suffering women, on the other hand it also spoils the atmosphere of society
- The cumulative effect of the domestic violence at all levels and across all religion is the country's hindered development and slow economic growth.

CONSEQUENCES OF DOMESTIC VIOLENCE AND WOMEN EMPOWERMENT

India today is at the cusp of a paradigm change in its growth and its position in the world. We (both men and women) must act decisively to capture this opportunity. We need to think big and scale up rapidly in each and every area, be it education, infrastructure, industry, financial services or equality of both genders. The speed of women empowerment definitely developed in India e.g. according to the 2001 Census, the percentage of female literacy in the country is 54% up from 9% 1951. Women can be understood in relation to resources, perceptions, relationship and power. Women empowerment generally has five components : firstly, women's sense of self worth; secondly their right to have the power of control their own lives, both within and outside home; and lastly, their ability to influence the direction of social change to create a just social and economic order nationally, internationally and universally.

Education is a main tool of development for women. In India, the empowerment process has already started. They are showing their skills even in non-traditional sectors like police, defence, administration, media and research fields. Twenty-six laws have been enacted so far to protect women from various crimes. Women should remember that they are also rational, intelligent and thinking human beings in Indian society. They

should have political, legal, economic and health awareness. They should have knowledge about support groups and positive attitudes towards life. They should get goals for future and strive to achieve them with courage. There is a need to give the support to each and every women in society. Identification and sort out the problems of women which are now a day's women's are facing. Empowerment of women means gender equality. Way to provide women empowerment is to allocate responsibilities to them that normally belong to men. If women were empowered to do more and be more, the possibility for economic development becomes apparent.

THE METHOD OF WOMEN EMPOWERMENT

Following points are considerable for the process and method of women empowerment in India

1. Self decision making to women
2. Selection of the option as per her choice
3. Application of own and self efforts freedom fully.
4. Having positive attitude of society about women
5. Involment and participation of women into exchange education and various engagement.
6. Stress on growth process, proper changes, positive self image, overcoming stigma and ability to identify of right or wrong.

There are various consequences of domestic violence depending on the victim, the age, group, the intensity of the violence and frequency of the torment they are subjected to. Living under a constant fear, threat and humiliation are some of the feelings developed in the minds of the victims as a consequence of an atrocious violence. The consequences of the domestic violence in entail can be broadly categorised under

- 1) The effect on the victim himself/herself and the family.
- 2) Effect on the society.
- 3) Effect on nation's growth and productivity.

The effects on the victims has been further sub categorised for women, men, children and olds

EFFECT OF DOMESTIC VIOLENCE ON THE SOCIETY

All the different forms of violence discussed in this essay adversely fettle society. Violence against women may keep them. Locked in homes succumbing to the torture they face .if they come out in open and reveal the wrong done to them for help and rescue, it influences the society both positively and negatively. At one hand where it acts as an inspiration and ray of hope for other suffering women, on the other hand it also spoils the atmosphere of the society. When something of this kind happens in the society, few families may witness the evil of domestic violence knocking their door steps. Some families try to imitate what others indulge in irrespective of it being good or bad for the family.

EFFECT ON THE VICTIM AND THE FAMILY

1) Consequences of Violence Against Women

Battered women have tendency to remain quite, agonised and emotionally disturbed after the occurrence of the torment. A psychological set back and trauma because of domestic violence affects women's productivity in all forms of life. The



suicide case of such victimised women is also a deadly consequences and the number of such cases is increasing.

2) Consequences of violence against Men

The consequences against violence against men in India is largely emotional and psychological in nature. The physical harassment resulting from domestic violence, also effects their lives and productivity but is still more inclined towards the emotional problems which men face in India. It is largely because many such cases of physical assault of women.

3) Consequences of violence against Children/Teens

The consequences in case in case of children are far more drastic and its effect is long lived. Children are sensitive to issues related to violence of any kind as they are not mature enough to comprehend them. In their growing years they try to initiate things which they see hearing around them. In the recess of following their parents advice or instructions they become firm in their opinion and approach towards life.

4) Consequences of violence against olds

The elderly abuses is one of the most unfortunate happening for the elderly class in their lives.

They would rather like to be more at ease and calm in this phase of their life life than being prone to such kind of treatment by the family or society.

Remedies for domestic violence and Fighting the domestic violence evil

A recent study has concluded that violence against women is the fastest growing crime in India. According to a latest report repaired by India's national crime records bureau (NCRB), a crime has been recorded against women in every three minutes in India. Every 60 minutes, two women are rated in this country. Every six hours, a young married women is found beaten t death, burnt or driven to suicide.

SUGGESTION/SOLUTION

The victims of domestic violence often suffer physical wounds. Care centers, hospitals can help them heal physically. But there is a major change in emotional values the victim suffers. The victim loses his/her confidence as well self-esteem. But more than that, the victim loses something called HOPE. Physical wounds can heal pretty quickly but it is mental trauma that takes time to heal. It takes someone close to victim to get back him/her in steady life. A psychiatric can be of utmost help to such victims. But these are all solutions to what happened after the unfortunate event. If domestic violence is to be completely uprooted, we must deal with the cause of it. Often, mental tension is the cause of this crime. There are many sessions conducted by different NGOs to help people deal with family or spouse issues. Attending session based on how to deal daily life can truly help in reducing the cause for this crime.

Also, awareness programs can be conducted on such issues throughout different villages as villages are the place where more number of victims reside. Confronting the people openly about monstrosity of such grievous crime can sense of indulgence about it. The government of India also has created a committee to look after victims and create awareness among the masses.

CONCLUSION

Domestic Violence is no small crime. Although the physical abuse under it cause great pain to the body but it is nothing as compared as to the psychological transformation that victim goes through. The victim loses all the moral values which are imbibed by the society. Not only the victim loses hope by the/she loses the major value of 'trust'. There is no certainty that victim may ever be able to trust anyone again. That being stated, domestic violence grows to be a major concern all over the world.

After all the studies made throughout this project, it becomes clear what might be the root of this dangerous crime. Often stress, mental pressure, lack of emotional values are considered to be main causes. But there are minor factors included too. As stated in the heading "causative factors", trust issues or issues creating annoyance can grow in the mind of person on a daily basis. Such growth of mental tension is the biggest reason for all crimes. India faces a severe issue of domestic violence every year. The number of victims is on rise as we advance but these are not actual numbers for sure. There are many victims who do not even report a crime like this just because "what other people might think". It is unfortunate to state so but in India, it is the victim who is embarrassed and the society turns its back on the victim, not on the criminal. Such orthodox nature gives the criminal a free will and which promotes such despicable behaviour. Looking on the bright the side though, many NGOs have been set up for revival of victims. Even the government has taken bold initiatives to subdue such crimes by making strict laws. If proven guilty, domestic violence is punishable to death. Though the numbers of victims are on rise, it is good in certain perspective that these victims could be reached out and helped to get back in normal life. This project reaches out to different aspects of grievous crime of domestic violence. It answers the questions like what is domestic violence; what factors lead up to it; how the victim suffers; what could be done about it; what is the situation in India and so on. Thus it might help in bringing awareness in young generation.

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MEASURES TO PREVENT THE PROBLEMS OF COLD-WATER FISHERIES IN THE FOOTHILLS AND MOUNTAIN REGIONS OF THE REPUBLIC IN THE DEVELOPMENT OF HIGH-INCOME TYPES OF PRODUCTION

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ABSTRACT

Growth, rate of sexual maturity, fecundity, inter- and intra-population variability, natural conditions and aquaculture in many areas of the species range where they have been transplanted.

KEY WORDS: *Biological basis, Salmonella furunculosis, Vibriosis, Diagnostics, Epizootological data, Spread and economic damage.*

INTRODUCTION

In the conditions where fishing in Uzbekistan is completely at the disposal of the private sector, there is a shortage of fish in the population's diet, the creation of new jobs and the development of high-income types of production, the foothills and mountain areas of the republic have a significant reserve. Such conditions are characterized by the presence of a large number of water sources, which should be classified as cold water (that is, the water temperature in them does not exceed 18°C throughout the year). The conditions of our republic's mountainous and especially sub-mountainous regions are considered a new breeding ground for trout breeding for the republic. Therefore, most of the local fish farmers are not familiar with it. In the future, the emergence of new people in trout farming without basic knowledge of aquaculture will deepen the problem. There is no network of large fish nurseries in the republic, therefore, at the current stage, at the early stage of development of spawned caviar, it will be relatively convenient (including cheap) for farmers to bring in commercial flounder from them. Based on this, this work focuses on these very important aspects of the fishing cycle. A water source with a favorable gas exchange regime, temperature, and a number of other abiotic and biotic factors is necessary for the cultivation of rainbow trout. Rainbow flounder is a cold water fish. Spawning takes place when the water temperature is 4-10 °C (preferably 6-8 °C), and for embryonic development the water temperature is 6-13 °C, the optimal temperature for the development of larvae and fry is 10-14 °C need. As the fry develop, the water temperature can reach 18 °C. A comfortable temperature for one-year fry and commercial fish is 14-18°C. If the water temperature falls below 8 °C, young fish and commercial fish will not feed well and the efficiency of nutrient uptake will decrease. When the temperature drops below 7 °C and exceeds 18 °C, the flowerfish loses its appetite. If this situation continues for a long time, the flounder will stop feeding and the causative agents of fish diseases will become active. The lowest water temperature for

this fish to develop is 0.1 °C, and it dies if the water temperature exceeds 25-26 °C. The optimal amount of dissolved oxygen in water is 9-11 mg/l, and the critical amount is 5 mg/l (measured from the water outlet of the fishing pond). For the embryonic development of flower fish, the amount of dissolved oxygen in water should not be less than 7.5 mg/l. The guaranteed rate of development of flowerfish is 10-11 mg/l of dissolved oxygen in water at the water inlet and 7 mg/l at the outlet. The rainbow flowerfish is an euryhaline species that adapts well from freshwater to brackish (marine) waters. However, hatching and the first stages of the life cycle take place in fresh water. Some rainbow trout, when their body length reaches 10-12 cm and total weight of 20-25 g, are transferred directly to seawater with a salinity of 28 o/o. can withstand, while other salmonids with a body length of 20 cm and a weight of up to 100 g need to adapt during the week. Such differences depend on the genetic characteristics of the fish. This indicator is not dangerous in the foothills of the republic, which are rich in fresh water sources. The water in the flower fish breeding farm is optimal when the amount of hydrogen potential is pN -7-8. It is also possible to use water with hydrogen potential - pH 6.5 - 9. A pH below 4.5 or above 9 is fatal for this fish. Baliqlarning o'sish sur'ati kislotali muhitdagi suvlarda ishqoriy muhitdagi suvlarga nisbatan past bo'ladi. Gulbaliq ikralari rN miqdori 4,5 dan past yoki 9 dan yuqori bo'lganda yashamaydi.[1] Methods of bringing spawned trout roe at the "puppet" stage in the trout farms operating in the mountain and sub-mountain regions of Tashkent region, and from them embryo, larva, fry, fingerling (the size of a thumb) The number of objects cultivated in canoe fishing for the cultivation of crayfish in water bodies with natural water temperature has been increased, including the use of predatory fish belonging to different systematic groups. The main achievement of new biotechnologies is the study of the biological characteristics of cold-blooded fish living in water (universal solvent) environment in certain areas, where water quality indicators act as a limiting factor and can differ sharply from each other in different basins. Realizing that the life of fish



is highly dependent on external environmental conditions makes it possible to choose objects and adapt new world technologies to a specific area. [3] Level of study of the problem. In world practice, the growth, rate of sexual maturation, fertility, inter-population and intra-population variability of rainbow trout (salmons) have been studied in natural conditions and in aquaculture in the range of the species and in many areas where they have been transplanted. Scientific researches are focused on breeding work and selection of rainbow flowerfish, as well as the passage of the process of sexual maturation and the formation of fertility. In Uzbekistan, the rainbow flowerfish was not studied because it did not live there before. In the conditions of our republic, researches on breeding rainbow flowerfish have been studied by D. Abdunazarov and co-authors, B. Kamilov and co-authors, M. Yuldashov and co-authors. Due to the recent introduction of the species to the conditions of aquaculture in the republic, the assessment of the processes of growth and reproductive biology is relevant for its future development.[2]

The purpose of the study is to evaluate the characteristics of sexual maturity and fertility indicators in the conditions of industrial fishing in the foothills of the Chirchik river basin in order to develop the technology of industrial breeding of rainbow trout in the Republic.

EXPERIMENTAL PART

The practical results of the research are as follows: The cage farm studied is in very cold water (water temperature 5-130 C throughout the year) to form its own school of parent fish, however, when using high-quality high-protein feed, the fish are good. it reaches its size (250 g) in the second year, and 1000 g in the third year. The processes of gonadogenesis and gametogenesis take place normally at the natural temperature of the water in the conditions of the studied basins, and the methods of analyzing the reproductive biology of the rainbow flowerfish can be applied to the conditions of our region. In the water basin, in different breed groups, both sexes reach sexual maturity for the first time at the age of 2-3 years. Seasonally, sexual maturity occurs in late November and early December. The indicators of fertility fully correspond to the indicators of countries with leading aquaculture. For the construction of fish nurseries, it is necessary to have at least 3 age groups of parents

and a school of fish that fill the parent fish group, as well as grazing ponds (including cages, running water pools) for the reserve group.[4]

The practical importance of the research is based on the knowledge gained on intensive aquaculture in the republic, based on the information obtained, it is explained by the fact that it is possible to recommend the standards of formation of a stock of relatively dense parent fish for planning the development of rainbow flowerfish breeding in the republic.

Implementation of the research results based on the results of the research conducted on the formation and fertility of rainbow flowerfish (*Oncorhynchus mykiss*) reproductive characteristics in the conditions of Uzbekistan:

The researcher's recommendation to treat caviar with a weak solution of potassium permanganate during the incubation process was put into practice at the "Kandil Flight - Fayz" farm (No. 02/23-2205 of the State Veterinary and Animal Husbandry Development Committee of the Republic of Uzbekistan dated December 14, 2021 reference number) as a result, it was noted that the conversion of larvae to larvae increased from the usual rate of 50% to 72% by preventing saprolegnia disease. The researcher's proposal to use an aeration device and a degasser during the incubation process was put into practice by "Mr Fish Farona Companu" LLC ("Uzbekbaliqsanoat" association reference No. 08/991 dated December 16, 2021). the yield of free embryos increased from the usual 30-40% to 72.8%, and the larval yield increased from the usual (40%) to 24-28.6%. "Golden fish group" LLC implemented the researcher's recommendation to bring and incubate the fertilized triploid caviar of the rainbow flowerfish ("Uzbekbaliqsanoat" association No. 08/991 dated December 16, 2021) 18-30% increase compared to the productivity indicator of commercial fish from spawned normal caviar. The implementation of the researcher's recommendation in the private enterprise "Eto ya" (reference No. 02/23-2205 dated December 14, 2021 of the State Committee for Veterinary and Livestock Development of the Republic of Uzbekistan) resulted in a 25% increase in the productivity of commercial fish. [5]

The optimal temperature of water in pools is 14-18 ° C, the amount of dissolved oxygen in water should not be less than 7 mg/l.



Figure 1. Circular (left) and rectangular (right) swimming pools for chick care.

Spawns weighing up to 1 g are transferred to pools with a water level of 0.4 m at a breeding density of 25,000 pieces/m³, which corresponds to a density of 10,000 pieces/m². It is necessary to

increase the water consumption to 3-5 l / min / 1000 pieces and ensure a complete exchange of water in 10-15 minutes.



After the fry weight exceeds 1 g, the breeding density should be reduced to 7,500 pieces/m³ (this corresponds to 3,000 pieces/m² when the water level is 0.4 m). At such a density, chicks are grown until their weight is 5 g. At the beginning of this period (when chicks weigh 1 g), water consumption is at the level of 8-13 l/min/1000 pieces, and at the end (4-5 g), water consumption is 2.5-3.5 l/min/piece. level is maintained. The time of complete water exchange is 10-15 minutes.

For the rapid growth and normal development of the fish generation, it is necessary to organize proper feeding of the fish. Also, it is necessary to constantly monitor the cleanliness of the pool water, the cleanliness of the bottom, walls, and the hydrochemical quality of the water.

Rainbow flowerfish is a predatory, omnivorous fish. Therefore, it is necessary to divide them into groups according to their size, starting from their freshness. Sorting is done using sorting devices or manually (if small). A sorting table is used for this. Groups of chicks of different sizes are transplanted into different pools or cages. In this case, rectangular pools with a size of 6-30 m³ and larger (the ratio of width to length is 4-8 m per 1 meter) or circular pools with rounded corners are used. The water depth in the pools is 0.8 - 1 m (so it is better to have pools with a height of 1.2 m). In small farms, chickpeas are often grown in earthen ponds (up to 500 m²).

3 m deep and 15 m² cage structures are attached. Cage size should be 3.5-5 mm for chickens weighing 1 g, 6 mm for 2 g, 8 mm for 4 g and 12 mm for 10 g. The demand for water quality parameters is the same as that of water. The density of the transfer to the pools is 2,000 pieces / m³. At the end of this stage, the water consumption in the pools is 35 - 50 l/min. / 1000 pieces or 2 - 2.5 l/min/kg of biomass. Complete water exchange should take place in 10-15 minutes. Fingerling chicks are grown until their weight is 20-25 g. In soil ponds (where it is very difficult to ensure such a rapid water exchange), relatively low cultivation densities are used or additional aeration devices are used (Figure 8). In ponds with a depth of 0.8 m and a complete water exchange of 2-3 hours, fry are transferred at a breeding density of 600 pieces / m³. When the water exchange in the pond (0.8 m deep) slows down, the density of cultivation is further reduced.[6] Caviar incubation should be done in the dark, for this the lights in the room should be turned off. When using a tarpaulin device, they are covered with an opaque material. The causative agents of infectious diseases of fish are viruses, bacteria and fungi. Researches of recent years show that many, severe diseases of fish, especially in artificially stocked ponds, are due to viral diseases. However, the participation of bacteria in the pathogenesis of some viral diseases has been identified and confirmed in research. Due to the participation of bacteria in viral diseases, it is the cause of complicated processes, and the secondary causative agents have been confirmed. Infectious diseases are widespread in almost all types of fisheries and cause great economic losses. Among them, the most common are bacterial diseases: aeromonosis (redfish) and pseudomonosis of carp fish, flirunculosis, vibriosis and myxobacteriosis of salmon, mycobacteriosis, aeromonosis and pseudomonosis of aquarium fish, etc. takes

the main place. Viral diseases have become widespread in recent decades, including carp spring virus (SVVV) and salmon viral hemorrhagic septicemia (VGS). Among fungi, branchiomycosis, ichthyofonosis, dermatomycosis are epizootologically important. Salmonella furunculosis - Salmonella aeromonosis (furunculosis) - an infectious disease of salmonella, caused by bacteria belonging to the Aeromonas genus of the Vibrionaceae family. Spread and economic damage. Furunculosis is common in all salmon farming countries except Australia and Tasmania. A sharp epidemic of the disease has spread in trout breeding farms in Russia and Ukraine, aeromonas was not detected in salmon in the Sakhalin River. Trigger. The length of Aeromonas salmonicida bacterium is 1.7-2.7x1 µm. Favorable growth of this facultative aerobe is 18-25°C. Epizootological information. All species of salmonid fish are susceptible to furunculosis, but brook and rainbow trout, gorbusha, and catfish are not susceptible to the disease. Mostly two-year-old fish are infected during spawning. Young fish get sick. Epizootics or enzootics occur mainly in spring and summer. At a temperature below 7 °C, the disease is in a latent state. The source of infection is sick fish and fish susceptible to bacteria, the causative agent secretes secret products and excrement into the water. Invertebrates from disease-susceptible farms spread from animal feeds, caviar and during uncontrolled transport of infected fish. Contamination begins with water transportation, inventory, live fish containers, and contaminated soil.

Vibriosis is an infectious disease of salmon, eel and other fish caused by Vibrio bacteria belonging to the Vibrionaceae family. Spread and economic damage. Vibriosis is widespread in saltwater trout and trout farms. The disease has an enzootic origin, causes mass death of fish and requires huge costs for the recovery of diseased farms. Trigger. Vibrio anguillarum is a bacterium. They are gram-negative, oxidase-positive, flexible or linear with a straight rod; does not form spores or capsules; facultative aerobe. They grow at a temperature of 25-37°C when 1.5-3% sodium chloride is added to the normal nutrient medium, the optimal condition is 18-25°C. Vibrios are widespread in nature. Honey is called Vibrio parahaemolyticus strains, which are also pathogenic for humans. Vibriosis infects salmonids (flour fish), flounder, carp, red eye fish, and okun fish in brackish water basins. But for rainbow flowerfish, the disease is the most dangerous, and fish that are one year old and older are affected. Diseased fish, their secretions and dead fish are the source of infectious agents. The disease is transmitted by direct contact and through infected water. Damage to fish occurs through injuries, skin and alimentary tract. The appearance of vibriosis contributes to the pollution of water bodies with organic substances. Immunity decreases in sick fish. Pathogenesis and disease symptoms. Blood decreases, the causative agent spreads in all organs and tissues, toxemia, septicemia occurs, degenerative-necrotic changes occur in organs, serious-hemorrhagic inflammations occur. The incubation period is 6-14 days. The disease is observed acutely and chronically. In an acute course, the first symptoms of the disease are refusal of food, decreased active activity. In sick fish, reddening of the skin, foci of destruction of the gills, skin ulcers, and in some, swelling in the muscles, accumulation of pus, and



anemia of injuries are observed. The disease often ends with the death of fish. In its chronic course, it differs in the formation of various wounds on the skin, and it can gradually heal over 3-4 months. Fish begin to feed, but up to 50% of fish may die in the fall. The acute course is characterized by hyperemia, enlargement of the spleen and kidneys, punctate blood inclusions in the liver parenchyma, swelling of the serous membrane, fluid accumulation in the abdominal cavity, and hydration and softening of skeletal muscles. In its chronic course, it is limited to small changes in the skin and internal organs. [5]

Diagnostics. Diagnosis epizootological data, clinical signs and is carried out on the basis of bacteriological studies, taking into account pathologoanatomical changes. In the acute course of the disease, pathogens are released in large quantities from the blood, spleen, kidney, liver, as well as from abscesses and wounds. Healthy fish susceptible to disease are affected by pathogenic bacteria. Serological methods of treatment have been developed. Prevention and countermeasures. Access to unsanitary farms infected with vibriosis will be restricted, the transportation of fish for breeding there, and their transportation in domestic farms will be prohibited. Medicines such as furazolidone, oxytetracycline, and levomycetin are added to the fish feed for treatment. Furazolidone is used in the amount of 8-9 g per 100 kg of fish weight for 5-10 days at intervals of 1-2 days. Oxytetracycline is added to the feed in the amount of 7 g per 100 kg of fish weight, Levomycetin in the amount of 5 g per 100 kg fish weight on the first day and 3 g in the next 2-6 days. Courses are repeated several times in the summer. Fishes are done 21 days after treatment.

In order to prevent vibriosis, it is necessary to follow veterinary and sanitary rules when transporting fish, to prevent their injury, to limit exposure to stress of fish, to improve environmental conditions in water bodies, and to provide fish with nutritious food. Vaccines against the disease should be developed. [3]

Sanitary assessment of fish. It is allowed to eat commercial fish without any restrictions without external signs of disease. Sick fish that have lost their appearance are not allowed to be eaten and are boiled and used as animal feed or disposed of. Myxobacteriosis (pillar disease) is an infectious disease of salmonids caused by myxobacteria belonging to the genus *Flexibacter*.

Spread and economic damage. The enzootic course of the disease is widespread in trout-breeding farms, ponds and ponds, and salmon-breeding farms in brackish and warm waters. Sometimes the economic damage of myxobacteriosis in carp fish in warm water farms consists of losses related to the death of fish and costs for the health of fisheries.

Trigger. *Chondrococcus columnaris* (*Flexibacter columnaris*) mucus bacterium is gram-negative, rod-less rod size 4-8x0.5 mm, filamentous and ring-shaped. In solid media, bacteria form colonies of grayish-fluid slime, and some bacteria exhibit gliding or tortuous movements. does. Pathogens develop at a temperature of 4-30° C.

Epizootological information. Mainly, young salmonids are infected from larvae to one-year-olds, in which mortality can reach 30-90%. The disease also occurs in carp, white carp, channel flounder, aquarium and some other fish species. Adults are not sick, but they are bacteria carriers. Sources of infectious agents sick and dead fish, as well as polluted water and fish farming equipment. The disease occurs in hot seasons, sometimes at low temperatures. The disease usually occurs in farms with high-quality water, in ponds with a large amount of organic matter, artificial ponds. Injuries in fish as a result of various fishing manipulations contribute to damage. Pathogenesis and disease symptoms. Pathogens live and reproduce mainly in wounds, skin coverings and musculature, sometimes they form hematogenous and degenerative lesions in internal organs. causes changes and inflammations. The incubation period has not been studied. Sick fish lie upwards and do not receive food. *Jabra myxobacteriosis* is characterized by the destruction of *Jabra* leaves as a result of increased swelling and mucilage. The flap of the wound is raised due to the swelling of the wound. Cutaneous myxobacteriosis begins with blanching of the skin around the dorsal fins (gray saddle), followed by skin lesions in the form of a line on the sidewall and ventral margin (gray belt). Patchy lesions of the skin appear again on the head, fins, around the mouth and other places. Entering the subcutaneous tissue and muscles, the bacteria causes dermatitis. Pathologoanatomical changes. Swelling, necrotic foci are noted in the wound, spreading from the upper lobes to the arch of the wound, and the joining (adhesion) of the respiratory layers and the writing of the shape of the wound are observed. There are no serious changes in internal organs, liver with the exception of mild hyperemia, and sometimes fluid accumulates in the abdominal cavity. [3]

Diagnosis. The diagnosis is made mainly on the basis of characteristic clinical signs, epizootological data and pathologoanatomical changes. For the latter diagnosis, long curved gram-negative bacilli can be seen in natural and stained color microscopic examinations of the skin and mucous membranes of the affected area, which in most cases are located in the form of a column. If necessary, a pure bacterial culture is isolated.

Prevention and control. First, changing the hydrochemical regime of water bodies, cleaning water bodies from pollution, increasing flows, etc. For the treatment of sick fish, trypaflavin with a concentration of 3-6 g/m³ for 12 hours for 2-3 consecutive days and 1.5 g/m³ of copper sulfate for 1-2 hours are taken in long baths. For gross infection, oxytetracycline at a dose of 50-100 mg/kg for 10 days with feed or oral sulfonamides at 200-240 mg/kg of fish weight is recommended. Disease prevention is important to help improve pond sanitation and prevent injury to fish.



Figure 2. White (dead) caviar to be removed.

During incubation, it is necessary to prevent the development of fungal disease - saprolegnia. For this, a number of preventive measures are taken: when the caviar is placed in the incubator, after two days, and then 1-2 times a week until the appearance of free embryos in a solution; It is processed for 10 minutes in a solution of malachite green in a ratio of 1:50000, a solution of chloramine in a ratio of 1:30000 or a solution of formalin in a ratio of 1:2000.

SUMMARY PART

In conclusion, taking into account that fish diseases cause serious problems in the development of the fishing industry, infectious and non-infectious diseases of fish, description of the disease, morpho-biological characteristics of the causative agent, clinical signs of the disease, scientifically based information on epizootology and its prevention is provided. This will preserve the number of fish, increase their productivity, and also ensure the population's need for quality fish products. will come.

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ACADEMICIANS UNDERSTANDING ON HEIS AND LEARNERS' GOAL (AN DESCRIPTIVE STUDY REFERENCE TO ARTS & SCIENCE COLLEGE STUDENTS STUDYING IN COIMBATORE)

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ABSTRACT

Employability of the graduating students is the top most priorities of the HEIs (Higher Education Institutions). Therefore, teachers serving in HEIs are instructed by their administrators to enhance their job skills and teachers themselves voluntarily influences their students to shape up their career goals through strengthening and sharpening their employability or entrepreneurial skills. The article aims to assess the association between academicians understanding on the need for motivating their students in modern education system and academicians' ability

Why to motivate the students based on their career aspiration/life-goals. are shaped, their career aspiration and needed skills for career progress are developed. Ten most reputed colleges functioning in Coimbatore city was chosen, from each college 25 academicians participated in the survey. The article discussion comes 92.90 per cent of the teachers realise their role of recruitment in HE services. Approximately, 94 per cent of the academicians have expressed high degree of satisfaction, 88 per cent of the sample teachers feel satisfied with the nature of career succession and promotions achieved by their graduated alumni and 87.40 per cent of the teachers feel satisfied being a facilitator supporting the students in achieving their career building.

KEY WORDS: Higher Education Institution, Academician, Career Aspiration, Career Building

INTRODUCTION

Employability of the graduating students is the top most priorities of the HEIs (Higher Education Institutions) and HEIs pays strategic importance in effective placing of their students. Teachers serving in HEIs are instructed by their administrators to enhance their job skills and teachers themselves voluntarily influences their students to shape up their career goals through strengthening and sharpening their employability or entrepreneurial skills (Aslam and Rawal, 2019). Teachers has moral responsibility to be empathical towards their students, understand their needs and adopt positive approach in motivating their both academically and in achieving their career goals. Based, on individual students needs and expectation college teachers adopt different motivation techniques and continuously take all possible effort to support their students (Sultan and Najar, 2019). In real time work environment college teachers get very limited time and opportunities for motivating and encouraging their students to focus on their career building. Teachers engage in motivating their students in different situation and they apply various techniques to encourage their students. Through the procession of motivation that is continuous in nature teachers aims to bridge the gap between nature of skill acquired by the students and the nature of skills expected by the employers in the job market, entrepreneurial skill needed for the future entrepreneurs,

research skill, analytical, technical and social (human resource management skills) (Choukade and Ingalagi, 2020).

LITERATURE DISCUSSION

Motivation is used as push factor by HEI and teachers to influence the students towards their academic achievement, building in discipline life, to encourage them to target their employability goals, strengthen their skills and in building a health society (Sharma and Srivastava, 2019). Literatures collected in relevance to the article concepts have been discussed in this section.

Developing employability skills among the graduating students is the priority many educational institutions across the world. As the effect the HEIs are facing higher pressure from the job markets to fulfil their demand in term of skill and competency of their fresh recruits (Tomlinson, 2012). Employability of management graduate is closely associates with the quality of management institution (Shah and Srivastava, 2014). Graduating students believe that quality of teachers serving in colleges influences their employability competency enhancement (Shukla and Garg, 2016). Teachers through adoption of achievement motivation techniques influences their learners to achieve various life goals (Pinder, 2014). Teachers adopt different strategies to create motivation environment,



keep constantly motivating their learners and in order to protect them uncertain and job market risks (Kirondo, 2014). Teachers' motivation is very important to enhance the skill and competency level of the adult learners. Teachers adopt different motivation techniques depending on the year of study a study pursue and based on their gender (male and female students) skill needs (Jeyanthi and Lawrence, 2022).

It is impossible task for HEIs to achieve its goal of employability of graduating students without the support and motivation of teachers, realising this fact has supported in designing this study.

FOCUSED THEME AND OBJECTIVE OF THE ARTICLE

Attaining HE is always rewarding multiple benefits to the graduating youth (Gill et al., 2017). Role of academicians in enhancing the job /occupational skills among the arts and science students is considered as very significant. At the same time the HEIs render a competitive education environment in enhancing the career opportunities and skills among their graduating students (Raju and Rajalakshmi, 2014). As HEIs (Higher Education Institutions) has the moral responsibility and accountability to fulfilling the human capital need of the country and in meeting the employment demands raised by the youth of the nation (Choukade and Ingalagi, 2020). Connecting these two-prime linking-ends this article is constructed. The article aims to assess the association between academicians understanding on the need for motivating their students in modern education system and academicians' ability to motivate the students based on their career aspiration/life-goals.

METHODOLOGY AND DESIGN OF THE ARTICLE

Article is constructed based on exploratory and descriptive research procedure. HEIs and the students across the nation choose HEIs functioning in the Coimbatore to fulfil individual HE education needs and career aspiration fulfilment. Majority of the students acquiring under-graduate or post-graduate degrees are found to be satisfied with the career development programmes and placement opportunities ensured by the HEIs functioning in Coimbatore region. For collection of data from the academicians the convenience sampling technique was applied. Ten most reputed colleges functioning in Coimbatore city was chosen, from each college 25 academicians participated in the survey.

RESEARCH DISCUSSION

Empirical data enumerated presented in the above table directed that out of 250 academicians surveyed, 53.33 per cent of the samples are women teachers and 46.67 per cent are male teachers. Large position of the samples is in the age group of 25 years to 55 years (66.67 per cent) and 53.33 per cent of the teachers are married. Almost 70 per cent of the samples are Ph.D., degree holders. It was found that 56.67 per cent of the sample Arts and Science Colleges (samples) are functioning in the city for more than 30 to 34 years, 43.33 per cent of the

colleges have enrolled more than 2000 students in different disciplines and in different degree studies, and 93.34 per cent of the colleges surveyed as co-education institutions.

Public and Private colleges functioning in Coimbatore region enroll meritorious students (66.67 per cent) and on the bases of first-come first service bases (40 per cent). These colleges are found to be highly reputed and offering quality service to the students and to the society. As career building activities these colleges conduct industrial visits (87.67 per cent), seminars on career development programmes (86.67 per cent), seminar on subject related skill developments (85.67 per cent), interaction with industrial experts (85.67 per cent) and job skill enhancement workshops (82.33 per cent) to their graduating students at Under graduation, post- graduation and in research studies. At the same time HEIs also create awareness among their students about on-camps (placement camps) job opportunities (76.67 per cent), recognising students innovation /adventures (76.67 per cent), encourage sports participation (76.67 per cent), encouraging students to pursue higher degrees /research work (75.67 per cent) and encouraging students publish articles (74.33 per cent).

Out of 250 teachers surveyed 73.33 per cent of the samples are associated with private colleges and 36.67 per cent of the teachers monthly earning varies between ₹. 25,001- ₹.35,000 and cent percent are NET/SLET (national /State Level Eligibility Test) qualified. Sample academicians have accumulated service experience of 66.67 per cent.

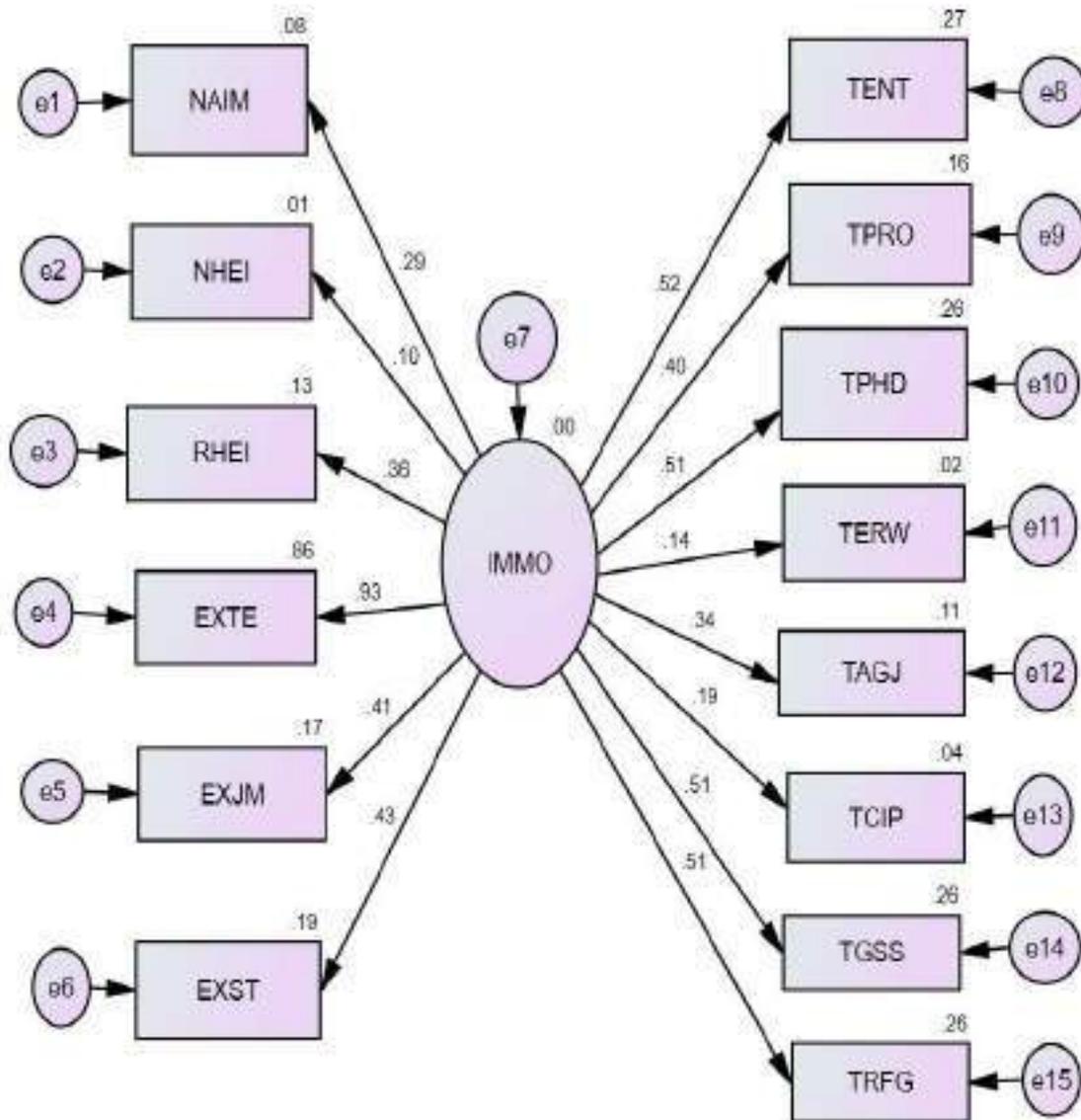
Academicians while designing their students' motivation with the aim to enhance their quality of life, supporting them to achieve self-esteem, to focus on career progress and to meet their financial inclination. Academicians feel that through gaining needed higher education fulfil the national goal of changing higher education system practice (i.e., from theory to functional). Make the graduating eligible to earn more, so that their financial needs of self and family are met. Teachers feel that through enhancing career-orientation skill among the graduating students, the quality of their institution is retained (as their students are mostly well-placed and earn very decent salary). Thus, the teachers as a facilitator are able to bridge gap between the graduating students career goals and their life goals.

SEM is performed to association between teachers understanding on the need/importance of motivating the adult learners as per modern higher education system and academicians' ability to motivate the students based on their career aspiration/life-goals. Above presented literature discussion provided need base for construction of this SEM. The fourteen variables considered as key components identified for the construction of SEM are abbreviated as : NAIM-National's Importance, NHEI-Nature of Higher Education in India, RHEI-Role of Higher Education Institution, EXTE-Expectation from Teachers, EXJM-Expectations of Job Market, EXST-Expectations of Students, TENT-To be an Entrepreneurs, TPRO-To be a Professional, TPHD-To Pursue Higher Degree,

TERW-To Engage in Research Works, TAGJ-To Achieve Good Job, TCIP-To be a Creative and Innovative Person, TGSS-To Gain Social Status, TRFG-To Realise Financial Growth and IMMO Academicians Understanding on the Importance of Motivating Students.

H₀: There exists association between academicians understanding on the need for motivating their students in modern education system and academicians' ability to motivate the students based on their career aspiration/life-goals.

FIGURE: 1
ASSOCIATION BETWEEN TEACHERS UNDERSTANDING ON THE IMPORTANCE OF GAINING HIGHER EDUCATION FOR STUDENTS AND MOTIVATION TECHNIQUES ADOPTED BY ACADEMICIANS



The CFA (Confirmatory Factor Analysis) results are presented in above Exhibit:1. The fit indices indicate that the measure has a good fit overall. On the basis of these measurements, the result of the study shows that the proposed model has a Good data fit χ^2 (CMIN) = 203.349 (p=.000), GFI=.910, AGFI=.999,

TLI=.988, CFI=.905, NFI=.989, PNFI=.925, PCFI=.938, RFI=.969, IFI=.912, RMSEA=.001, indicative of a good fit, although not all of the values to the right of the observed variables represent standardised factor loadings (β), it is represented in the following Table.



TABLE:1
CONFIRMATORY FACTOR ANALYSIS PATH ANALYSIS STRUCTURE MAXIMUM LIKELIHOOD – REGRESSION WEIGHTAGE

Path		Unstandardise d Estimates	Standardise d Estimates	S.E	C.R	P Value	Relationship
NAIM	<--- IMMO	.788	.288	.208	4.006	.000	Significant
NHEI	<--- IMMO	.220	.095	.169	1.493	.006	Significant
RHEI	<--- IMMO	.924	.356	.208	3.698	.000	Significant
EXTE	<--- IMMO	2.007	.929	.381	7.898	.000	Significant
EXJM	<--- IMMO	1.064	.409	.225	5.488	.000	Significant
EXST	<--- IMMO	1.000	.434	.018	4.125	.000	Significant
TENT	<--- IMMO	1.378	.519	.257	3.452	.000	Significant
TPRO	<--- IMMO	.849	.396	.203	5.709	.000	Significant
TPHD	<--- IMMO	1.436	.511	.257	5.883	.000	Significant
TERW	<--- IMMO	.332	.137	.187	2.822	.005	Significant
TAGJ	<--- IMMO	.724	.338	.170	2.754	.006	Significant
TCIP	<--- IMMO	.387	.190	.175	3.414	.000	Significant
TGSS	<--- IMMO	1.166	.509	.219	6.054	.000	Significant
TRFG	<--- IMMO	1.387	.511	.306	6.331	.000	Significant

Level of Significance: 5 per cent

Association between teachers understanding on the importance of motivating graduating students (IMMO) established positive association between the variables tested. IMMO vs. modern education system i.e., NAIM $(\beta=.2888 p=.000)$, NHEI $(\beta=.095 p=.006)$, RHEI $(\beta=.356 p=.000)$, EXTE $(\beta=.929 p=.000)$, EXJM $(\beta=.409 p=.000)$ and EXST $(\beta=.434 p=.000)$. Ability of the teachers as facilitator in motivating the graduating students based on their career aspiration /life goals. teachers understanding on the importance of motivating graduating students (IMMO) established positive association between the variables tested i.e., IMMO vs. TENT $(\beta=.519 p=.000)$, TPRO $(\beta=.396 p=.000)$, TPHD $(\beta=.511 p=.000)$, TERW $(\beta=.137 p=.005)$, TAGJ $(\beta=.338 p=.006)$, TCIP $(\beta=.190 p=.000)$, TGSS $(\beta=.509 p=.000)$ and TRFG $(\beta=.511 p=.000)$. SEM results supported in the acceptance of the hypothesis framed, it has been concluded that there exists association between academicians understanding on the need for motivating their students in modern education system and academicians' ability to motivate the students based on their career aspiration/life-goals.

IMPLICATION OF THE STUDY

The authors understand that teachers have to develop more understanding on the goal of the nation, contribution of HE for the nation's human need, growth and economic progress, so that they can offer their service very productively and focus more on motivating their graduate students.

CONCLUSION AND FUTURE SCOPE

Colleges and HEIs are considered as vital place where the future of students are shaped, their career aspiration and needed skills for career progress are developed. The article

discussion comes 92.90 per cent of the teachers realise their role of recruitment in HE services. Approximately, 94 per cent of the academicians have expressed high degree of satisfaction, 88 per cent of the sample teachers feel satisfied with the nature of career succession and promotions achieved by their graduated alumni and 87.40 per cent of the teachers feel satisfied being a facilitator supporting the students in achieving their career building. As this piece of article focused only on the academicians, a further survey can be conducted to assess the role of HEIs in motivating their graduating students and at the same time the expectation of the graduating students towards their career determinant can be studied.

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INNOVATIONS IN PSYCHIATRIC NURSING EDUCATION: A COMPREHENSIVE REVIEW

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ABSTRACT

Psychiatric nursing education stands at the forefront of addressing the complex and dynamic landscape of mental health care. This comprehensive review explores recent innovations in psychiatric nursing education, analyzing transformative approaches such as curriculum design, technology integration, simulation-based learning, and interprofessional education. By examining the impact of these innovations on student learning outcomes and the quality of psychiatric nursing practice, this article aims to inform educators, policymakers, and practitioners. Furthermore, it discusses challenges faced by psychiatric nursing education and outlines potential future directions.

KEYWORDS: Psychiatric nursing education, Innovations, Curriculum design, Technology in education, Simulation-based learning, Interprofessional education, Mental health, Student learning outcomes.

1. INTRODUCTION

Psychiatric nursing stands as a critical discipline within the broader field of healthcare, addressing the intricate and nuanced needs of individuals grappling with mental health disorders. As societal understanding of mental health evolves, so must the education provided to those who aspire to become psychiatric nurses. This section delves into the fundamental importance of psychiatric nursing education and sets the stage for a comprehensive exploration of recent innovations in the field.

Mental Health Landscape: The contemporary mental health landscape is marked by an increasing prevalence of diverse mental health disorders. From anxiety and depression to more complex conditions such as schizophrenia and bipolar disorder, the demand for competent psychiatric nursing professionals is more pressing than ever. The introduction outlines the challenges posed by this evolving landscape and the necessity for a responsive and adaptive educational framework.

Role of Psychiatric Nursing: Psychiatric nurses play a pivotal role in the holistic care of individuals with mental health disorders. Beyond the traditional nursing responsibilities, they are tasked with understanding the intricacies of mental health, employing therapeutic interventions, and fostering environments conducive to recovery. The section emphasizes the specialized skill set required of psychiatric nurses and underscores the importance of a robust educational foundation to cultivate these skills.

Evolution of Psychiatric Nursing Education: The evolution of psychiatric nursing education has been a dynamic process, shaped by advancements in healthcare, changes in societal attitudes towards mental health, and the ongoing refinement of best practices in the field. By providing a brief historical context, this section elucidates how psychiatric nursing education has adapted over time to meet the evolving needs of both students and the individuals they are destined to serve.

Objective of the Review: This comprehensive review aims to explore and analyze recent innovations in psychiatric nursing education. By critically examining various transformative approaches, the review seeks to inform educators, policymakers, and practitioners about the changing landscape of psychiatric nursing education. The objective is not only to highlight the advancements but also to critically assess their impact on student learning outcomes and the quality of psychiatric nursing practice.

Significance of the Review: As the world grapples with an increasing burden of mental health issues, the significance of well-trained psychiatric nursing professionals cannot be overstated. This section discusses how an in-depth understanding of recent innovations in psychiatric nursing education is crucial for ensuring that healthcare systems are equipped with skilled and compassionate professionals capable of addressing the diverse and complex needs of mental health patients.

2. CURRICULUM DESIGN

Recent innovations in curriculum design are pivotal in shaping the educational experiences of psychiatric nursing students. This section delves into the integration of evidence-based practices, cultural competence, and trauma-informed care into the curriculum. By exploring how these elements enhance students' abilities to provide effective care, the article underscores the importance of staying abreast of the latest advancements in psychiatric nursing education.

3. TECHNOLOGY IN EDUCATION

The integration of technology has brought about a paradigm shift in psychiatric nursing education. This section explores the impact of virtual reality (VR) simulations, telehealth experiences, and online platforms on student learning. By providing immersive learning opportunities and exposure to a range of mental health scenarios, technology contributes to the



development of clinical skills, critical thinking, and decision-making in psychiatric nursing.

In recent years, the integration of technology has ushered in a new era for psychiatric nursing education, fundamentally transforming the way students learn and practice. This section delves into the multifaceted impact of technology, examining virtual reality (VR) simulations, telehealth experiences, and online platforms, and how they contribute to the development of crucial skills in psychiatric nursing students.

3.1 Virtual Reality (VR) Simulations

Virtual reality simulations have emerged as a powerful tool in psychiatric nursing education, providing students with immersive and realistic scenarios that mimic the complexities of mental health care. By donning VR headsets, students can step into simulated environments, such as psychiatric wards or crisis intervention scenarios, allowing for hands-on learning without putting actual patients at risk.

These simulations not only enhance clinical skills but also promote critical thinking and decision-making in high-pressure situations. Students can practice therapeutic communication, de-escalation techniques, and assessments in a controlled yet authentic setting. Moreover, VR simulations offer a safe space for students to make mistakes, learn from them, and refine their skills before entering real-world clinical settings.

3.2 Telehealth Experiences

The advent of telehealth technologies has extended its influence into psychiatric nursing education, providing students with opportunities to engage in remote patient care simulations. Through telehealth platforms, students can conduct virtual assessments, therapeutic sessions, and follow-ups with simulated patients, gaining exposure to the nuances of delivering mental health care in a digital landscape.

Telehealth experiences not only align with the growing prevalence of virtual care but also prepare students for the evolving nature of healthcare delivery. The section explores how these experiences enhance students' adaptability, digital communication skills, and their understanding of the ethical considerations associated with remote mental health care.

3.3 Online Platforms

The use of online platforms has become a staple in psychiatric nursing education, offering a diverse array of resources and interactive tools. From virtual case studies and interactive modules to discussion forums and multimedia content, online platforms enrich the learning experience by providing students with accessible and flexible resources.

This section also discusses the role of online platforms in facilitating collaborative learning and knowledge-sharing among students. The integration of discussion forums and virtual communities allows students to engage in meaningful dialogues, share experiences, and learn from diverse perspectives, fostering a sense of community in the digital learning environment.

3.4 Advantages and Challenges

While technology in education brings numerous advantages, it is essential to address potential challenges. This section provides an overview of the benefits and potential pitfalls associated with the integration of technology in psychiatric nursing education. Advantages include increased accessibility, enhanced engagement, and the ability to tailor learning experiences to individual student needs. Challenges may include issues related to technology literacy, infrastructure limitations, and the need for ongoing faculty training.

3.5 Future Directions

Looking ahead, the section concludes by exploring potential future directions in the integration of technology into psychiatric nursing education. This includes advancements in augmented reality (AR), artificial intelligence (AI) applications, and the continuous refinement of existing technologies. The evolving landscape of technology in education necessitates a proactive approach to staying abreast of emerging tools and methodologies, ensuring that psychiatric nursing education remains at the forefront of innovation.

4. SIMULATION-BASED LEARNING

Simulation-based learning has emerged as a cornerstone in psychiatric nursing education, offering a controlled environment for students to practice essential skills. This section examines the various simulation methods, including high-fidelity simulations, standardized patients, and virtual case studies. By highlighting their role in applying theoretical knowledge in realistic scenarios, the article emphasizes how simulation-based learning fosters competence and confidence among psychiatric nursing students.

Simulation-based learning has become a cornerstone in psychiatric nursing education, offering a controlled and immersive environment for students to hone essential skills. This innovative approach has transformed the traditional educational landscape by providing hands-on experiences that bridge the gap between theory and practice in mental health care.

4.1 High-Fidelity Simulations

High-fidelity simulations involve realistic scenarios where students can interact with lifelike patient avatars, replicating the complexities of psychiatric nursing practice. These simulations are designed to evoke a range of emotions and responses, allowing students to navigate challenging situations in a controlled setting. Through high-fidelity simulations, students can practice therapeutic communication, crisis intervention, and assessment skills, enhancing their ability to respond effectively to diverse mental health scenarios.

Research indicates that high-fidelity simulations contribute to increased confidence and competence among psychiatric nursing students. Exposure to realistic situations helps students develop a deeper understanding of the nuances of mental health care, preparing them for the unpredictable nature of psychiatric nursing practice.



4.2 Standardized Patients

Standardized patients, individuals trained to portray specific psychiatric conditions or scenarios, offer students the opportunity to apply theoretical knowledge in a dynamic, real-time interaction. This method allows students to practice empathetic communication, active listening, and clinical assessment skills in a safe and supportive environment. Standardized patients provide immediate feedback, fostering reflective practice and helping students refine their clinical skills.

By engaging with standardized patients, psychiatric nursing students learn to adapt their communication styles to the unique needs of each patient, promoting patient-centered care. This approach not only enhances clinical proficiency but also cultivates the interpersonal skills necessary for building therapeutic relationships in mental health settings.

4.3 Virtual Case Studies

Virtual case studies leverage technology to present students with complex clinical scenarios that mirror real-world situations. Through interactive multimedia platforms, students can explore diverse case studies, analyze patient histories, and make informed decisions. Virtual case studies promote critical thinking and clinical reasoning, allowing students to assess, diagnose, and develop appropriate interventions for individuals with psychiatric disorders.

The flexibility of virtual case studies enables students to engage with a variety of cases, including rare or challenging conditions, without the limitations of traditional clinical placements. This exposure broadens students' perspectives and prepares them to address the diverse needs of the mental health population they will encounter in their professional careers.

4.4 Fostering Competence and Confidence

The overarching goal of simulation-based learning in psychiatric nursing education is to foster competence and confidence among students. By replicating authentic clinical scenarios, students can practice and refine their skills in a supportive environment, ultimately translating theory into practical application. The experiential nature of simulation-based learning allows students to learn from both successes and challenges, promoting a continuous cycle of improvement.

Moreover, research indicates that exposure to simulation-based learning positively correlates with increased self-efficacy and preparedness for clinical practice. Psychiatric nursing graduates who have engaged in simulation-based learning are more likely to enter the workforce with a higher level of confidence and competence, contributing to improved patient outcomes in mental health care settings.

5. INTERPROFESSIONAL EDUCATION

Collaboration is key to effective mental health care, and interprofessional education initiatives are designed to facilitate this collaboration. This section explores the benefits and challenges of bringing together students from diverse disciplines, such as psychology, social work, and medicine, to foster a holistic approach to patient care. The review

emphasizes the importance of interprofessional education in psychiatric nursing and its implications for improving patient outcomes.

6. IMPACT ON STUDENT LEARNING OUTCOMES

An in-depth analysis of the innovations in psychiatric nursing education reveals their positive impact on student learning outcomes. Improved clinical reasoning, enhanced communication skills, and increased cultural competence contribute to the development of well-rounded psychiatric nursing graduates. This section highlights specific examples and case studies that demonstrate the effectiveness of these innovations in preparing students for the challenges they may encounter in their professional careers.

7. CHALLENGES AND FUTURE DIRECTIONS

While innovations have significantly improved psychiatric nursing education, challenges persist. Limited resources, faculty training, and resistance to change are among the obstacles faced by educators. This section discusses potential solutions to these challenges and outlines future directions, emphasizing the need for ongoing research, policy changes, and collaboration between academia and healthcare institutions.

8. CONCLUSION

In conclusion, the innovations explored in this comprehensive review have played a pivotal role in advancing psychiatric nursing education. By adapting to the dynamic needs of the mental health care landscape, these innovations ensure that psychiatric nursing graduates are well-equipped to provide high-quality, patient-centered care. The article concludes by emphasizing the importance of a continued commitment to adaptation, research, and collaboration to shape the future of psychiatric nursing education.

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SOCIAL MEDIA'S RIPPLE EFFECT: UNRAVELLING ADOLESCENTS AGGRESSION AND ITS TOLL ON PARENTAL MENTAL WELL-BEING

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ABSTRACT

PURPOSE: To investigate the correlation between social media exposure and aggressive behaviour in adolescents and assess the subsequent impact on parent's mental health for informed intervention.

DESIGN / METHODOLOGY: Utilizing a mixed methods approach this study will make use of journals magazines, reference books, qualitatively to assess social media usage patterns and aggressive behaviour in a diverse adolescent population. Concurrently secondary sources of data were used in the study which will provide in depth insight into the perceived impact on mental health of parents.

FINDINGS AND RESULTS: To obtain the most recent and relevant findings. recommend checking recent academic journals, publications or reputed sources that focus on social psychology or related fields.

ORIGINALITY / VALUE: The study of social media's influences on aggressive behaviour and its impact on parents' mental well-being holds significant value and originality due to several factors like emerging issues of excessive use of social media and its effect on emotional life of adolescence as well as their parents, interdisciplinary nature that adds depth to the investigation providing a more comprehensive view, identifying the impact of social media on aggressive behaviour allows for the exploration of strategies to mitigate negative consequences and the potential for ignoring practical strategies policies and educational initiatives.

TYPE OF PAPER: Descriptive research with exploratory research design.

KEYWORD: Aggressive behaviour, comprehensive, adolescenc

INTRODUCTION

SOCIAL MEDIA RIPPLE EFFECT

Digital realm can create a cascading impact, extending beyond the immediate participants. Social media as a powerful communication platform, has the potential to amplify and disseminate behaviours, including aggression, with far-reaching implications.

UNVEILING ADOLESCENT AGGRESSION

Adolescence marked by its formative nature, is a critical period where individuals navigate identity, social connections, and self-expression. Unfortunately, social media often becomes a background for asserting identity, sometimes manifesting as aggressive behaviour. Unraveling the complexities of adolescent aggression in the digital sphere is essential for understanding its origin and repercussions.

TOLL ON PARENTAL MENTAL WELL-BEING:

Parents, often on the front line of their children's digital experiences, bear witness to the emotional and psychological toll of adolescent aggression. Concerns about their children's online activities, cyberbully, and exposure to harmful content create a unique set of challenges. This study seeks to delve into the nuanced dynamics of how social media-induced adolescent aggression affects parental mental well-being.

RESEARCH OBJECTIVES

- The primary goal of this research is to explore the connections between social media, adolescent aggression, and the resulting impact on parental mental health.
- It aims to understand the potential impact of such behaviour on parents' mental health, exploring the stressors and concerns they experience in relation to their children's online activities.
- To analyse different ways of showing aggressive behaviour
- To examine the outcome of aggressive behaviour in adolescents' intervention based on SWOC analysis

Strengths

Research Base: Numerous studies provide a foundation for understanding the link between social media and aggressive behaviour.

Technological Tools: Advanced analytic and data mining tools can aid in collecting and analyzing social

Weaknesses

Data Accuracy: Reliability of self-reported data and



potential biases insocial media content analysis.

Dynamic Nature: Rapid changes in social media platforms and content trends may affect the relevance of the study over time.

- **Opportunities**

Intervention Strategies: Identify opportunities for developing interventions to mitigate aggressive behaviour on social media.

Parental Guidance Programs: Develop programs to educate parents on monitoring and guiding their children’s online activities.

- **Challenges**

Ethical Concerns: Address ethical issues related to privacy when collecting and analyzing social media data.

Diverse Platforms: Different social media platforms may have distinct impacts, requiring a nuanced approach in analysis.

This SWOC analysis provides a brief overview, but a comprehensive analysis would involve detailed exploration in each category.

RESEARCH METHODOLOGY

This methodology aims to offer a comprehensive un mental health, combining both qualitative and quantitative approaches adjustments may be made leasdon the specific context and focus of the research.

Statistical analysis and thematic coding will be employed to draw comprehensive conclusion offering a nuanced understanding of the intricate dynamics bet social media , adolescent behaviour and mental well being.

Develop hypothesis that predict the expected outcomes regarding the relationship between social media use and aggressive behaviour.

SUGGESTIONS

1. To develop educational program for parents to enhance their understanding of social media platforms, potential risk and ways to guide their children in navigating online spaces.
2. To introduce and implement digital literacy programs in schools to educate students about responsible online behaviour, including recognizing and avoiding aggressive content.
3. To establish support groups where parents share experiences, concerns and strategies for managing their children’s online activities, providing a sense of common and mutual support.
4. To launch media literacy campaigns to educate adolescents on critically evaluating and understanding the content they encounter on social media.
5. To promote the use of parental Tools and monitoring applications that allow parents to

supervise their children’s online activities and to implement measures that promote a healthier online environment.

CONCLUSION

In conclusion, addressing the influence of social media, on aggressive behaviour and its impact on parents mental health requires a multifaceted approach. Educational initiatives targeting both parents and adolescents coupled with the development of digital literacy programs and online safety tools, can empower individuals to navigate social media responsible collaboration efforts involving schools.

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A DESCRIPTIVE STUDY TO ASSESS THE LEVEL OF PATIENT'S SATISFACTION REGARDING NURSING CARE PROVIDED NEUROMEDICAL PATIENTS IN SELECTED HOSPITALS AT REWA, MADHYA PRADESH

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ABSTRACT

In today's world nurses must become lifelong learners capable of reflecting, evaluating and modifying their clinical practice based on new knowledge. Patients satisfaction is one of the key points to assess the standards of nursing care and hospital facilities. Patients satisfactions depends upon various aspects but highly upon quality care and better hospital facilities. Nurses are the frontline people that patients most likely meet up with, spend the highest amount of time with and rely upon for recovery during their hospitalization. Nursing care plays a prominent role in determining the overall satisfaction of patient's hospitalization experience. Assessing patient satisfaction with nursing care is important in evaluating whether patients needs are fulfilled and subsequently facilitating in the planning as well as implementing appropriate nursing interventions for patients. Determining factors contribute most to patient satisfaction can further assist nurses in improving the quality of nursing care. Hence, patient satisfaction with nursing care is an imperative determinant of quality of care particularly in the clinical healthcare facility settings.

Patient satisfaction is a term that can be interpreted differently by patients and its meaning can also differ for one patient at different times. Patient satisfaction some time treated as an outcome measure of healthcare providers. A satisfied patient is more willing to recommend the hospital to provide his or her care to others.

Patients satisfaction is a significant indicator of quality of care. Caring by the professional nurses have the highest role in the quality patient care and leads to patient satisfaction. Day by day technology changes beyond leaps and bounds. Even ordinary people are aware of everything including health care technology through information technology. Patients expect not only high-quality care but also quality information about illness and treatment.

Anant Kumar Rakhonde. A study of level of satisfaction among Neuromedical patients in a tertiary care hospital of central India Patient satisfaction is one objective of care, and along with recovery from illness or amelioration of presenting problem, it is therefore an outcome of care too. the study was to evaluate the satisfaction level among Neuromedical patients. Depending on the common complaints by patient regarding doctor patient relationship and satisfaction of patient after consultation at our institute, in study total 108 patients coming to surgical ward were taken. Out of which 66 (61.11%) were males and 42 (38.88%) were females. All of them are above 18 years of age group. The youngest was 18 years and oldest was 66 years of age. Females were found to be more satisfied after patient empowerment and counseling as compared to males. Older patients were found to be more satisfied than younger ones which are comparable with the international studies. In study, overall satisfaction level of patients has increased after counseling and patient empowerment (from 37%-63%).

KEYWORDS: Patient satisfaction, nursing care, neuromedical patients, healthcare quality, descriptive study.

PROBLEM STATEMENT

A Descriptive study to assess the level of patient's satisfaction regarding nursing care provided Neuromedical patients in selected Hospitals at Rewa, Madhya Pradesh.

OBJECTIVES

The Objectives of the study are listed below.

- To assess the level of satisfaction among the Neuromedicine patients in relation to nursing care.
- To assess the association with level of satisfaction and demographic variables.

CONCEPTUAL FRAMEWORK

A group of concepts that is broadly defined and systematically organized to provide a focused, a rational, and a tool for the integration and interpretation of formation. Usually expressed abstractly through word models, a conceptual framework is the conceptual basis for many theories, such as communication theory and general systems theory as defined in Mosby's Medical Dictionary.

The conceptual framework in this study is based on 'The Donabedian model is a conceptual model that provides a framework for examining health services and evaluating quality



of health care According to the model, information about quality of care can be drawn from three categories: "structure," "process," and "outcomes." Structure describes the context in which care is delivered, including hospital buildings, staff, financing, and equipment. Process denotes the transactions between patients and providers throughout the delivery of healthcare. Finally, outcomes refer to the effects of healthcare on the health status of patients and populations. Other quality of care frameworks, including the World Health Organization (WHO)-Recommended Quality of Care. Framework the Donabedian Model continues to be the dominant paradigm for assessing the quality of health care.

In the present study, these concepts can be explained as follows:

Structure

It refers to structure includes all the factors that affect the context in which care is delivered. This includes the physical facility, equipment, and human resources, as well as organizational characteristics such as staff training and payment methods. These factors control how providers and patients in a healthcare system act and are measures of the average quality of care within a facility or system. Structure is often easy to observe and measure and it may be the upstream cause of problems identified in process.

In this study, the structure is referring Staff nurses rendering services on following nursing care. Patient demographic data like Age, Gender Education, No. of days hospital stay, Types of family, Area of residence, Occupation, Previous hospital experience.

Process

It refers to the sum of all actions that make up healthcare. These commonly include diagnosis, treatment, preventive care, and patient education but may be expanded to include actions taken by the patients or their families. Processes can be further classified as technical processes, how care is delivered, or interpersonal processes, which all encompass the manner in which care is delivered. According to Donabedian, the measurement of process is nearly equivalent to the measurement of quality of care because process contains all acts of healthcare delivery. Information about process can be obtained from medical records, interviews with patients and practitioners, or direct observations of healthcare visits. In this study, process refers to developmental of patient satisfaction schedule assessment of patient satisfaction level like; Rest and sleep. Personal hygiene, Nutrition, Elimination. Treatment. Emotional support, Nurse patient relationship.

In this study, process refers to developmental of patient satisfaction schedule assessment of patient satisfaction level like; Rest and sleep, Personal hygiene. Nutrition, Elimination, Treatment, Emotional support. Nurse patient relationship.

Outcome

Outcome refers to the process contains all the effects of healthcare on patients or populations, including changes to health status, behavior, or knowledge as well as patient satisfaction and health-related quality of life. Outcomes are sometimes seen as the most important indicators of quality because improving patient health status is the primary goal of

healthcare. Although it is widely recognized and applied in many health

RESEARCH METHODOLOGY

Methodology is most important in research as it is the framework for conducting a study. It indicates the general pattern for organizing the procedure, to gather valid and reliable data for an investigation. It is a way to systematically solve the research problem. It explains the steps that are generally adopted by the researcher in studying the research problem along with the logic behind it.

According to business dictionary "methodology is a system of broad principles or rules from which specific methods or procedures may be derived to interpret or solve different problems within the scope of a particular discipline. Unlike an algorithm, a methodology is not a formula but a set of practices"

The present study was aimed assessing level of satisfaction in different area of Neuromedical patients in selected hospital Rewa Madhya Pradesh.

This chapter deal with different steps which were undertaken by the investigator for gathering and organizing the data, it includes the description of research approach, research design, setting of the study, population, sampling technique, criteria for selection of the sample, sample size, limitation, method of data collection, pilot study reliability, data collection procedure and plan for data analysis.

RESEARCH APPROACH

According to Denise F. Polit "Research approach is the most significant part of any research. the appropriate choice of the research approach depends upon the purpose of the research study, which was undertaken."

Research approach is a basic procedure of conducting the research study. It is systematic, controlled, empirical and critical evaluation natural phenomena guided by theory and assumption about the presumed relating among the phenomena.

CONTENT VALIDITY OF RESEARCH TOOL

Suresh K Sharma "Validity of an instrument refers to the degree to which an instrument measures what it is supposed to be measuring."

To ensure the content validity, the tool was submitted to 11 experts. 3 experts were doctors, department of medicine, department of surgery, department of Neuromedicine, 6 experts were from M. Sc. Nursing Medical Surgical specialty. The experts were selected on the basis of their clinical expertise, experience an interest in the problems being studies. They were requested to give their opinion on the appropriateness and relevance of the items in the tool. Experts suggested changing on the option of one question. The modified tool contained 24 items after incorporating the suggestions. The recommendation and suggestion were considered and the tool was reframed accordingly. The tool was prepared in English.



SAMPLE SELECTION CRITERIA

In sampling criteria, the researcher specified the characteristics of the population under the study by detailing the inclusion and exclusion criteria.

Inclusion criteria

- Patients who are admitted to the hospital for 3 to 6 post operative day.
- Are present at the time of data collection.
- Are willing to participate in the study.
- Both male & female patients

Exclusion criteria

- Patients who are unconscious.
- Patient's visiting outpatient department
- Less than 18 years.

DATA COLLECTION TOOLS AND TECHNIQUES

Data collection tools are the devices that the researcher used to collect the data. valid and reliable data collection instrument is considered important to yield high- Validity data.

Polit and Hungler (1995) states that the type of data collection instrument required depends upon the nature of the data to be gathered to answer the research questions.

Part 1 - Socio demographic data: this section consists of questions which deal with socio demographic variables such as age, gender, educational status, No. of days hospital stay, types of family, area of residence, occupation, and previous hospital experience.

Part 2 - 40 questions (Rating Scale) regarding patient satisfaction with nursing care. The options given for rating were: not satisfied, minimally satisfied, moderately satisfied, fully satisfied.

Mark	Percentage	Grade
0-30	0-25%	Not satisfied
31-60	26-50%	Minimally satisfied
61-90	51-75%	Moderately satisfied
91-120	76-100%	Fully satisfied

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with analysis and interpretation of data collected from 60 Neuromedicine Patients in Vindhya Hospital & Research Center Rewa Madhya Pradesh which based on the research objective and assumption.

According to Denise F. Polit, Beck Cheryl Tatano, the systemic organization and synthesis of research data and testing of research hypothesis using those data is known as data analysis. Analysis is the process of organizing and synthesizing data in such a way that research questions can be answered and assumption tested.

OBJECTIVES

The Objectives of the study are listed below.

- To assess the level of satisfaction among the Neuromedicine patients in relation to nursing care.
- To assess the association with level of satisfaction and demographic variables.

ASSUMPTIONS

- The assumptions of the study include.
- Patients have some level of satisfaction regarding nursing care in Neuromedicine wards.
- There is association with level of patient's satisfaction and socio demographic variables.

Frequency Percentage distribution of subjects according to socio demographic variables

Sl no	Demographic variable	Sample characteristics	Frequency (f)	Percentage (%)
1	Age	18-30	30	50
		31-40	12	20
		41-50	9	15
		>50	9	15
2	Gender	Male	22	36.6
		Female	38	63.3
3	Education	Illiterate	13	21.6
		Primary	12	20
		High & higher secondary	25	41.6
		Graduate & above	10	16.6
4	No. of days as Hospital stay	1-5 days	15	25
		6-10 days	35	58.5
		>10 days	10	16.6
5	Types of family	Nuclear	10	16.6
		Joint	50	83.5
6	Area of residence	Urban	15	25
		Rural	45	75

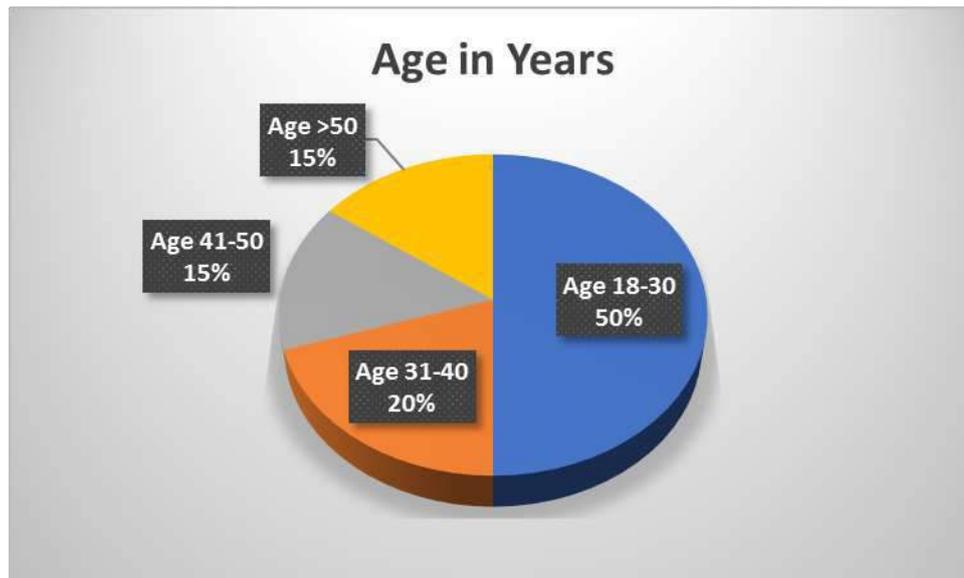


Figure 1: Pie diagram showing the percentage distribution of subjects based on age group

Nursing Research

The modern world is given prime importance for evidence-based practice. Research is important to improve the body of knowledge. Therefore, the nurse researchers should be made aware about the need for the research in the area of patient satisfaction in nursing care. Similarly, nurse research should focus on studies such as new finding for better patient care, staff development, evidence-based nursing practice. The finding of the study could be conducted on different setting like pediatric ward, general and private wards, so that it will strengthen and expand the role of nurses.

LIMITATIONS

- No direct observation was done to nurses provide nursing care to patient.
- Non randomized sampling.
- Sample was limited to 60.

RECOMMENDATIONS

The following recommendations were made for future research.

- A similar study can be conducted using large sample.
- Similar study would be repeated in intensive care units.
- An experimental study to assess the level of patient satisfaction regarding nursing care and hospital facilities.
- A study to assess effectiveness of planned teaching programs among staff nurses regarding improvement of quality nursing care.
- A comparative study can be done government and non-government hospitals.
- A comparative study can be done private and general wards in selected hospitals.

CONCLUSION

In conclusion, the study, focused on assessing the level of patient satisfaction regarding nursing care provided to Neuromedical patients in selected hospitals in Rewa, Madhya Pradesh. The research was undertaken in recognition of the

pivotal role nurses play in patient care and the increasing importance of patient satisfaction as an outcome measure in healthcare.

The study acknowledged the dynamic nature of nursing practice in today's world, emphasizing the need for nurses to be lifelong learners capable of reflecting, evaluating, and modifying their clinical practice based on new knowledge. Patient satisfaction emerged as a critical factor in assessing the standards of nursing care and hospital facilities. The frontline role of nurses, who patients most frequently interact with and rely upon during hospitalization, highlighted the significant impact nurses have on the overall satisfaction of patients' hospitalization experiences.

Patient satisfaction, treated as an outcome measure of healthcare providers, was identified as a multifaceted concept, subject to interpretation and variation among individuals. The study underscored the importance of quality care and better hospital facilities in contributing to overall patient satisfaction. Moreover, the role of caring by professional nurses was highlighted as having a paramount influence on the quality of patient care and subsequent satisfaction.

The research incorporated the Donabedian model as a conceptual framework, emphasizing the interconnectedness of structural, process, and outcome factors in assessing healthcare quality. The study objectives were clearly defined, focusing on evaluating the level of satisfaction among Neuromedical patients in relation to nursing care and exploring the association between satisfaction levels and demographic variables.

The data collection process involved a comprehensive approach, including socio-demographic data and a patient satisfaction assessment scale. The research approach was systematic and controlled, ensuring a methodical analysis of the gathered information. The study identified limitations such as the absence of direct observations of nurses providing care and a non-randomized sampling technique, providing valuable insights for future research endeavors.



The findings revealed variations in satisfaction levels based on demographic variables, emphasizing the importance of personalized care and patient empowerment. The conceptual framework facilitated a deeper understanding of the interplay between structural, process, and outcome factors influencing patient satisfaction.

In light of the study's outcomes, recommendations were made for future research, including the exploration of patient satisfaction in different healthcare settings, the expansion of nurse research into various specialties, and the conduct of experimental studies to assess the effectiveness of interventions aimed at improving nursing care quality.

In essence, the study contributes valuable insights into the complex dynamics of patient satisfaction in Neuromedical care, emphasizing the need for ongoing research, evidence-based practices, and a holistic approach to nursing care delivery. The findings serve as a foundation for enhancing the quality of care and patient experiences in clinical healthcare settings.

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THE RELATIONSHIP BETWEEN INTERNET USAGE PREVALENCE, FAMILY DYNAMICS AND ADOLESCENT RESILIENCE: A COMPREHENSIVE REVIEW

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ABSTRACT

In the modern digital era, characterized by pervasive internet usage, understanding the complex relationship between online prevalence, family dynamics, and adolescent resilience is an essential area of study. Through the analysis of these variables, this review study seeks to comprehend how internet usage among adolescents affects their behaviour, mental health, family dynamics, parental involvement, and communication patterns. The research is done to shed light on the viable tactics for developing resilient behaviours in adolescents and enhancing family settings in the face of pervasive internet usage.

The recent study's findings and limitations have been carefully considered and closely scrutinized. The reason for the research gap has also been closely examined.

A variety of secondary sources, such as research journals, and other websites, were utilized to create the literature for this study. All of the research has been carefully reviewed and summarized. The selected articles were all up to date, from reliable publications, and relevant to the planned research.

Paper type: Review paper

KEYWORDS: Internet Usage, Family Dynamics, Adolescent Resilience, Technology Impact, Digital Culture, Parental Influence, Social Media Effects, Psychological Development.

1.INTRODUCTION

During the past few years, adolescents have been greatly influenced by the internet's pervasiveness. Adolescents are among the first to embrace the internet and adapt it to numerous aspects of their everyday lives, particularly to the tremendous development of technology. Adolescent socialization, communication, and education have all changed as a result of the widespread use of smartphones, social media, and internet entertainment. They are using the internet more frequently, whether for pleasure, social contact, or education. Geographical and socio-cultural obstacles are not valuable to this prevalence, which brings benefits as well as challenges, Zaheer Hussain et.al.(2018),[1].

The family is one of the most important factors in determining how adolescents develop psychologically. Adolescent resilience and competence in overcoming obstacles are greatly enhanced by positive reinforcement, open communication, and a supportive environment in a healthy family dynamic. Family dynamics include a wide range of elements, such as the family's structure, parent-child relationships, styles of communication, and the level of support and supervision given by family members, Myhr, G et.al.(2004),

[2]. Adolescents experience challenging situations throughout this developmental stage, including identity formation, social obligations, and academic pressures. These circumstances emphasize the need for resilience. Resilient teens can handle stress, respond in adaptive manners, and keep a positive attitude in the face of challenges, Dmitrieva, Julia Chen et.al (2014), [3].

The term "digital culture" describes a set of common attitudes, behaviours, and values that have been influenced by a society's widespread adoption of digital technology. It encompasses all of the ways individuals use technology and the internet to create, communicate, interact, and consume information. The adoption of digital tools, changes in online communication styles, the creation of new media, and the integration of technology into many aspects of daily life are all considered aspects of digital culture. It includes both the advantages—such as better connectivity and information availability, and the drawbacks, such as privacy issues, digital divisions, and how technology affects interpersonal relationships, Adriana M. Manago et.al.(2022),[4]. Social media effects include the results of using social media platforms on individuals, communities, and society as a whole—that can have both



positive and negative impacts. Examining how these factors relate to and influence each other's impact on an adolescent's developmental path and well-being requires an understanding of the intricate relationships that exist between family dynamics, adolescent resilience, and the prevalence of internet usage, Blair Paley.et.al.(2000),[5].

2. OBJECTIVES OF THE REVIEW

Studying the connections between family dynamics, adolescents' resilience, and the prevalence of internet usage is crucial for recognizing the complex factors influencing today's youth's developing surroundings. Digital connectivity is becoming a necessary aspect of adolescence, and it is closely linked to family dynamics and building resilience during this critical adolescent period. This review of the literature aims to clarify the body of knowledge that currently exists about these interrelated variables, revealing the complex dynamics that exist at the interface of technology, family dynamics, and adolescents' adaptive capacities. The following are the key objectives of the literature review:

- 1) To Identify the link between prevalence of internet usage and family dynamics
- 2) To identify the connection between the prevalence of internet usage and adolescents' resilience
- 3) To Examine social media's effect on the psychological development of adolescents
- 4) To identify the research gaps, contradictions, or rarely researched areas in the existing literature and provide a review of where further study is needed to improve the gaps of this study.

This study review was carried out using a systematic strategy. The researcher examined several online sources like Google

Scholar, Psy Net, and Z-library to locate appropriate studies on the relationships between adolescent resilience, family dynamics, and internet use. Research that satisfied predetermined criteria was included; those that didn't were eliminated. Once these studies were chosen, their quality was examined to ensure the accuracy of the data. Analysed data from both qualitative and quantitative studies methodically. This article comprises only peer-reviewed articles and books written in English with full text. By doing this, the researcher intended to find patterns and themes that help explain the intricate links between internet use, family influences, and adolescent resilience.

The present study attempts to review and analyse the relationship between internet usage prevalence, family dynamics, and adolescent resilience.

3. REVIEW OF LITERATURE

The exploration of the interrelationship between internet usage prevalence, family dynamics, and adolescent resilience represents a critical endeavour in understanding the multifaceted influences shaping the developmental landscape of today's youth. A study on social media overuse and bonding between parents and children, explains the indication that attachment anxiety is positively associated with problematic social media usage, whereas indicators of a secure relationship have a negative correlation with problematic social media use, Musetti, A .et.al.(2022),[6]. Even though technology makes it easier for parents to connect with children, a lack of parental relationships is still the factor that has the greatest impact on problematic internet use. Daria J. Kuss ,et.al,(2022),[7].

Table 1. Research Papers on the Prevalence of Internet Usage and Family Dynamics

Sl. No.	Area & Focus of the Research	The Outcome of the Research	Reference
1	Internet addiction in adolescents: Prevalence and risk (2013),Parental influences on adolescents' excessive use of the internet	In a self-report questionnaire that consists of the Compulsive Internet Use Scale and the Quick Big Five Scale, 3,105 adolescents in the Netherlands were found to have a potential Internet addiction, which represents 3.7% of the sample.	Daria J. Kuss.et al.(2013)[8]
2	Role of attachment and family functioning in problematic smartphone use in young adults(2022), Understanding attachment and family functioning in adolescent problematic smartphone use	Consistency and sophisticated functioning were the two factors that were most successful in predicting problematic internet or smartphone use.	Jimeno, M. V. et al. (2022). [9]
3	The Generalized Problematic Internet Use Scale 2: Validation and test of the model to Facebook use(2017), A Second validation and	Using a sample of 761 Portuguese teenagers; results found that people who prefer online social connections are more likely to use Facebook as a mood regulator and also show poor digital self-regulation.	Raquel.S.Assuncao. et.al.(2017),[10]



	assessment of the model on social network use in the generalized problematic internet use scale		
4	Toward a comprehensive theory of problematic Internet use: Evaluating the role of self-esteem, anxiety, flow, and the self-rated importance of Internet activities (2019), In the context of a comprehensive theory of problematic internet use, assessing the significance of internet activities regarding self-rated importance, anxiety, flow, and self-esteem	Adolescents' tendency for problematic Internet use diminishes with a greater priority placed on maintaining pre-existing social interactions with friends and family. The less problematic Internet use, the better one's sense of self-worth	Ho-Kyung Kim.et.al.(2009),[11]
5	Parental influences on excessive. Internet use among adolescents(2023), This study intends to shed further light on how parental practices, such as the use of different disciplinary strategies throughout a child's early adolescence, may contribute to excessive Internet use by using longitudinal data.	The results revealed several parental risk and protective factors related to excessive internet usage, including the kind and frequency of discipline from parents, the degree of conflict in the parent-child relationships, and styles of parenting that grant psychological autonomy.	Conor O'Reilly. et.al (2023),[12]

Table 2. Research Papers on the Prevalence of Internet Usage and Adolescence Resilience.

Sl. No	Area & Focus of the Research	The Outcome of the Research	Reference
1	The relation between resilience and problematic Internet use among youth(2021), The impact of resilience on 220 Australian youth's problematic internet use and how resilience scores varied depending on factors including academic achievement, extracurricular activities, and ethnicity.	Students who regularly participated in extracurricular activities scored higher on resilience measures than those who did not participate as often. Internet use is positively connected with low levels of spirituality and personal skills.	Dinc.M.et.al(2021),[13]
2	Internet use in Adults: The Role of happiness, Psychological Resilience, dispositional Hope, and Self-control and Self -Management (2023), Parents of children in primary and secondary schools were shown to have problematic internet use when it came to happiness, psychological	These results suggest that individuals' high levels of psychological resilience, hope, and happiness will decrease their problematic internet use. It has been found that problematic internet use and self-control and self-management have a significant indirect connection.	Ramazan Yilmaz.et.al (2023),[14].



	resilience, dispositional hope, self-control, and self-management.		
3	Psychological resilience and post-traumatic growth in disaster-exposed organisations: overview of the literature (2020),A comprehensive analysis of the literature using a qualitative approach to examine the elements that influence psychological resilience and the possible advantages of going through a disaster (post-traumatic growth) by looking at the research on workers in organizations that have experienced disasters.	Social support seemed to play a significant role in improving resilience: Individuals may be shielded from negative mental health effects by the support of their peers, superiors, and family members. who expressed satisfaction with their training connected to tragedies, and especially those who had received training specialized particularly for disaster situations, seem to be more resilient than untrained volunteers or underprepared employees.	Brooks.S.et.al,(2020) [15].
4	Resilience and Perceived Social Support Among School-Going Adolescents in Mangaluru.(2017),Assessment of the level of reported stress, perceived social support, and resilience among school-going adolescents in Mangaluru, Southern India, to identify gender disparities in these domains.	The sample is representative of teenagers in the mid-adolescent phase, as indicated by the group's mean age of 10-14 years. The adolescents' stress levels were moderate, and it can be triggered by phase-related concerns and other external circumstances. The period known as mid-adolescence has been suggested to be when most common adolescent problems usually occur.	Prabhu.et.al,(2017)[16]
5	Problematic Internet Use and Resilience: A Systematic Review and Meta-Analysis, (2023),A systematic review evaluates the association between problematic Internet use and resilience, including potential moderating factors such as participants' age and gender, the continent where the research was done, and other variables.	Important implications for preventing problematic internet use, a condition with significant negative consequences on mental and physical health, as well as significant associated economic spending. Furthermore, developing resilience through suitable training programs would benefit more than just reducing the possibility of problematic internet use; it would also improve mental and physical health and have a positive effect on other factors unrelated to problematic use of new technologies or addictions.	Sergio Hidalgo,et.al(2023), [17]

Table 3. Research Papers on the Social media's effect on the Psychological Development of Adolescents

Sl. No	Area & Focus of the Research	The Outcome of the Research	Reference
1	Social Media's Impact on Teenagers(2013),The article explores some of these factors, their effects, and possible adult interventions to raise awareness of and discourage adolescents' potentially harmful media-related activities.	The addictive desire to always be in contact with peer groups is more concerning since it seems to lower the influence of parents and other authority figures. Teenagers who use social media extensively also tend to experience negative effects on their physical and mental health.	Rahul Vasanth .et.al.(2013),[18]
2	Social media and adolescent development: Hazards, pitfalls and opportunities for growth. Clinical Social Work Journal (2014),How digital technology can impact adolescent development and what clinicians can do to support the positive and lessen the negative effects of this sometimes-	This study examines how the technology world can impact teenage development and what we, as clinicians, can do to encourage the positive and lessen the bad effects of this occasionally overwhelming but ongoing feature of modern life.	Barth, F.et.al ,(2014),[19]



	overwhelming but permanent feature of modern life.		
3	The Impact of Social Media on the Mental Health of Adolescents and Young Adults: A Systematic Review(2023),Empirical studies on adolescents' awareness of social media, especially as a source of information, or how they could use more wide-ranging modern media discourses to express themselves	Adolescents who use smartphones and social media are more likely to experience mental discomfort, engage in self-harming activities, and even consider suicide. By employing open, non-judgmental, and developmentally appropriate strategies, such as education and useful problem-solving techniques, clinicians can collaborate with youth and their families to lessen the risks associated with social media.	Abderrahman M. Khalaf.et.al,(2003),[20]

4. RESEARCH GAP

The systematic approach used in this study offers a strong framework for finding and evaluating significant information, however, some gaps in the research in this area still exist, which affects the comprehensiveness of the research. First of all, there is a noticeable lack of recognition concerning the chronological range of the reviewed material. Understanding the historical development of the relationships between internet use, family dynamics, and adolescent resilience is essential to placing recent findings in contrast. A clearer distinction between the variables within the studies selected would enhance this review's ability to convey the dynamic nature of these relationships. Including studies from other language origins would enhance the study's applicability to a wider range of cultural situations and lead to a more inclusive understanding of the interactions between the components studied.

5. ANALYSIS OF THE REVIEW

The most common internet activities among adolescents were social media engagement and high parental involvement positively correlated with lower instances of excessive internet use. Open communication within families was associated with better resilience scores among adolescents. Technology played a significant role in shaping digital culture, with emerging trends indicating a shift towards increased reliance on online communication and information sharing. Table 1 emphasizes the impact of family dynamics on online behaviour. The studies support the positive connection between higher levels of parental participation and fewer instances of excessive internet use. Table 2 presents the concept that adolescents who have higher resilience scores also have open communication within their families. All of the studies listed in Table 3 show that social media has a major impact on adolescents' identity formation and sense of self-worth, highlighting the necessity of paying attention to these impacts within the larger framework of psychological well-being. The comprehensive review of the studies by the researcher highlights the relationship between internet use, familial dynamics, and teenage resilience, highlighting the significance of bringing all of these aspects into consideration for an in-depth perspective.

Adolescents spend an excessive amount of time on social media and playing online games, which needs to be acknowledged. Adolescents being drawn to these activities makes logical sense, as research indicates that this is a widespread behaviour. To avoid the negative effects of excessive internet use, it's

crucial to understand the requirement of responsible online behaviour and to take necessary precautions.

The close relationship between parental involvement and a decrease in instances of excessive use of the internet emphasizes how important families are in influencing adolescent behaviour, Conor O'Reilly. et.al (2023),[12].

The relationship between improved resilience and open communication is consistent with ideas that underline the role that family support plays in enhancing the well-being of adolescents.

The acceptance of technology's significant impact on digital culture emphasizes the necessity of further study to modify approaches and guidelines. To effectively manage the changing world of adolescent internet interactions, schools, parents, and governments must have a thorough understanding of new trends, Barth, F.et.al.(2014),[19].

Concerns regarding the possible psychological effects are raised by social media's reported effects on identity formation and self-esteem. A primary focus for therapies meant to support teenagers' healthy psychological development should be directed to amplify positive experiences and reduce negative ones when they interact online. Ho-Kyung Kim.et.al.(2009),[11].

The various findings of the studies reviewed here point to a complex relationship between adolescent resilience, home dynamics, and internet usage. Targeted parental education initiatives, encouraging open discussion among families, and creating interventions that address the advantages and disadvantages of digital culture are a few effective tactics. These observations highlight the importance of a comprehensive strategy that involves families, educators, and legislators and adds to the larger conversation on teenage well-being in the digital age.

6. CONCLUSIONS

1. Active parental support and open communication are pivotal in shaping adolescents' internet behaviour and resilience.
2. Promoting digital literacy is very crucial for adolescents to navigate through digital culture effectively.



3. Encouraging a balanced approach to social media can mitigate potential negative impacts on self-esteem and identity formation.
4. Holistic support from society is essential for fostering healthy psychological development in adolescents in the digital age.

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THE HONEY TRAP: IS HEATED HONEY REALLY THAT BAD?

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ABSTRACT

Introduction- The consumption of honey mixed with hot water or heated honey has been a practice. However, concerns have arisen regarding the potential harmful effects of this practice, both according to Ayurvedic principles and scientific evidence. Ayurveda, the ancient Indian system of medicine, emphasizes the importance of consuming honey (Madhu) in its raw, unheated form. Acharyas have mentioned that heating honey alters its chemical properties, transforming it into a substance that is visha (poison) to the body. A dooshi visha, or "unnatural substance," is any substance that can disrupt the balance of the doshas and contribute to disease. When honey is heated, it undergoes a chemical transformation, leading to the formation of a compound called 5-hydroxymethylfurfural (HMF). HMF can be considered a dooshi visha in Ayurveda due to its potential to disrupt the delicate balance of the doshas. According to Ayurvedic principles, the doshas are in a constant state of flux, and their balance is essential for maintaining health. HMF, with its propensity to alter the doshas, can throw this equilibrium off, leading to various health problems.

Aims and Objectives: To understand the effect of consuming heated honey (Madhu) on humans.

Materials and Methods: Modern textbooks and Authenticated sources were scrutinized for the understanding of properties, chemical composition of honey and ayurvedic textbooks were scrutinized for further understanding.

Conclusion and Discussion: Based on both Ayurvedic principles and scientific evidence, it is advisable to consume honey in its raw, unheated form to reap its full health benefits and minimize potential risks. While honey mixed with hot water or heated honey may be part of practices, these methods may compromise the beneficial properties of honey and pose potential health concerns.

KEY WORDS- Honey, Madhu, Visha, dooshi visha, HMF.

INTRODUCTION

Honey, the golden nectar adored for centuries, transcends its delicious reputation to hold immense significance in both modern science and Ayurveda, the ancient Indian healing system. In Ayurveda, Believed to balance all three doshas – Vata, Pitta, and Kapha – honey is revered as a Rasayana, an elixir promoting longevity and rejuvenation. Its antimicrobial, anti-inflammatory, and wound-healing properties find mention in countless ancient texts, highlighting its efficacy in treating various ailments. From a scientific lens, honey is a complex natural concoction, brimming with over 200 unique components. Sugars like fructose and glucose provide its signature sweetness, while prebiotics, vitamins, minerals, and potent antioxidants like flavonoids and phenolic acids endow it with remarkable health-promoting properties. Honey or Madhu, has long been revered for its sweetness, healing properties, and symbolic significance in Ayurveda. However, a hidden "trap" lurks within its essence – the potential dangers of heat. Science unveils the delicate dance of molecules within honey.

AIMS AND OBJECTIVES- To understand the effect of consuming heated honey (Madhu) on humans both as per ayurveda and modern science.

MATERIALS AND METHODS: Modern textbooks and Authenticated sources were scrutinized for the understanding of properties, chemical composition of honey and ayurvedic textbooks were scrutinized for properties of Madhu, mode of consumption and precautions before eating hone and to understand its effect on healthy person.

REVIEW OF LITERATURE

Nirukti (Etymology) of Madhu ^[1]: The word Madhu is said to be derived from "Manyat iti madhu" meaning delicious, sweet and pleasant.

Synonyms of Madhu as per Ayurveda ^[2-6]- Madhu, Makshika, Kshoudra, Pushpasava, Kusumasava, Makshikavita, Pushparasa, Pushparasodbhava, Pavitra.

Synonyms of Honey in modern science: Honey, purified honey, clarified honey, strained honey.

Characters of Honey- Chemical Composition:

- Sugars: Honey is primarily composed of simple sugars, comprising roughly 70-80% of its dry weight. Fructose and glucose dominate, accounting for approximately 85% of these sugars.^[7] Fructose contributes to its sweetness while glucose readily provides energy.^[8]



- **Prebiotics:** Non-digestible carbohydrates like oligosaccharides and inulin constitute about 5-10% of honey, promoting gut health by acting as prebiotics and nourishing beneficial gut bacteria.^[9]
- **Amino Acids:** Honey harbours a diverse array of amino acids, essential for protein synthesis and various metabolic processes, contributing to 0.5-2% of its dry weight.^[10]
- **Vitamins and Minerals:** Trace amounts of vitamins B1, B2, B3, B5, B6, C, and K, along with minerals like iron, potassium, calcium, magnesium, and phosphorus, provide additional nutritional value.^[7]
- **Antioxidants:** Phenolic acids and flavonoids act as potent antioxidants, contributing to honey's anti-inflammatory properties and free radical scavenging abilities.^[11]

Properties according modern science: Scientific research has revealed a range of beneficial properties in honey. These include its ability to fight infection (antiseptic, antimicrobial), reduce inflammation (anti-inflammatory), promote relaxation (sedative), gently stimulate digestion (mild laxative), aid in wound healing (healing), and cleanse (cleansing).

Properties of mature and immature honey in Ayurveda: Aged honey balances the three Doshas, while fresh honey, with its sour bite, disturbs the *tridosha*'s.^[12]

Properties of fresh and old honey in Ayurveda: Fresh honey nourishes the body and acts as a laxative, but does little to balance *Kapha*. Aged honey, stored for at least a year, tackles obesity and constipation while promoting tissue regeneration.^[13]

Characters of *Madhu* (honey) as per Ayurveda, (14-20)

	<i>Charak Samhita sutrasthan 27/245</i>	<i>Sushruta Samhita sutrasthan 45/132</i>	<i>Ashtang Sangraha sutrasthan 6/92, 95</i>	<i>Ashtang Hridya sutrasthan 5/52</i>	<i>Madanpal Nighantu Ikshukadi varga 9/25-27</i>	<i>Kaidev Nighantu Aushdahi varga/175-178</i>	<i>BhavPraksh Nighantu Madhu varga/2-5</i>
Rasa	<i>Madhura, Kashaya</i>	<i>Madhura</i>	<i>Madhura, Kashya</i>	<i>Madhura, Kashya</i>	-	<i>Madhura</i>	<i>Madhura</i>
Anurasa	-	<i>Kashaya</i>	-	-	-	<i>Kashaya</i>	<i>Kashaya</i>
Guna	<i>Guru, Ruksha</i>	<i>Laghu, Ruksha, Picchila</i>	<i>Guru, Ruksha</i>	<i>Ruksha</i>	<i>Laghu, Ruksha, Vishad</i>	<i>Laghu, Ruksha, Vishad, Sukshma</i>	<i>Laghu, Ruksha, Vishad, Sukshma</i>
Virya	<i>sheeta</i>	<i>sheeta</i>	<i>sheeta</i>	-	<i>sheeta</i>	<i>sheeta</i>	<i>sheeta</i>
Vipaka	-	-	<i>katu</i>	-	-	-	-
Doshagnata	<i>Vatakarak, Kaphapitta nashak</i>	<i>Tridosha nashak</i>	<i>Vatakarak, Kaphapitta nashak</i>	<i>Vatakarak, Kaphapitta nashak</i>	<i>Alpavatalam, Kaphapitta nashak</i>	<i>Vatakarak, Kaphapitta nashak</i>	<i>Alpavatlam, Kaphapitta nashak</i>

Precautions Before Consuming Honey

- **Dose-dependent effects:** While honey offers various benefits, excessive consumption can be detrimental due to its inherent heavy, rough, astringent, and cold properties. Overindulgence can lead to "*Madhvama*", a severe honey-induced indigestion with unique challenges in treatment. Its severity stems from requiring contrasting interventions compared to other forms of indigestion, potentially leading to rapid and critical complications.^[21]
- **Thermal sensitivity:** To preserve honey's beneficial properties and avoid potential negative interactions, avoid heating it, consuming it with hot foods, or engaging in strenuous activities or hot environments that raise your internal temperature. Honey originates from various plants, including some with potentially toxic or "*Ushna*" (hot) characteristics. While these toxins are typically harmless in moderate amounts, heating or combining honey with hot substances or environments may exacerbate their potency, leading to *Dosha* imbalances.^[21, 22]
- Enzymes such as invertase and diastase are destroyed. (These enzymes help in the digestion and breakdown of sugar.) Glucose oxidase available in honey is also lost

through heating.(This enzyme helps the body fight bacteria and viruses by producing hydrogen peroxide which acts as a disinfectant).^[23]

- **Loss of antioxidant properties** – honey is rich in antioxidants that help neutralize the effect of harmful radicals in the body. These free radicals are the sole cause of chronic diseases and infections.
 - One of the antioxidants found in honey is polyphenols which is an anticancer agent. These substances also help prevent inflammation. Heat destroys this substance.
 - Because of heating there will be formation of HMF (5-hydroxymethylfurfural), this is in excessive quantity has shown Cytotoxicity, genotoxicity, mutagenicity, enzyme inhibition on human body.^[23]
- **Incompatible with Hot Water:** Due to its inherent coolness, softness, and diverse plant-derived composition, honey exhibits incompatibility with hot substances like water.^[24] This incompatibility has been corroborated by scientific studies demonstrating that heating honey, particularly above 140°C, reduces its specific gravity and increases ash value, pH, HMF (hydroxymethyl furfuraldehyde) content, browning, phenolics, and antioxidant activity.



- **Mixing with Ghee and Water:** Research suggests that combining honey in equal quantities with water or ghee, while altering certain properties like browning and antioxidants, does not significantly impact food consumption or organ weight in rats. However, a crucial warning emerges in the case of heating honey over 140°C and then mixing it with ghee. This combination leads to enhanced HMF production, a compound with potential long-term deleterious effects and possible toxicity. [25]
- **Avoid Rainwater and Lotus Seed:** Traditional practices advise against consuming honey with rainwater or lotus seed. While the scientific basis for these recommendations requires further investigation, it serves as a reminder of

potential interactions between honey and other substances. [26]

- **Infant Safety and Botulism Risk** [7]: A critical public health concern regarding honey consumption is its potential association with infantile botulism. Honey can harbour dormant spores of the bacterium *Clostridium botulinum*, which are harmless to adults but pose a significant threat to infants. These spores can convert into toxin-producing bacteria within the immature intestinal tract of infants, leading to severe illness and even death. This underscores the importance of avoiding honey consumption in infants under 12 months of age.

TEMPERATURE	EFFECT
Heating up to 37°C (98.6 F)	Loss of nearly 200 components, part of which are antibacterial
Heating up to 40°C (104 F)	Destroys invertase, an important enzyme
Heating up to 50°C (122 F) for more than 48 hrs.	Turns the honey into caramel (the most valuable honey sugars become analogous to sugar)
Heating honey higher than 140 degrees F for more than 2 hours	Causes rapid degradation
Heating honey higher than 160 for any time period	Causes rapid degradation and caramelization
Generally, any larger temperature fluctuation (10°C is ideal for preservation of ripe honey)	Causes decay

Quality of Market Honey- Honey adulteration is a major problem causing market losses and hurting the reputation of this valuable product. Studies show that adulterating honey with sugars like cane sugar or corn syrup can have serious health consequences, leading to kidney and liver damage, diabetes, and other chronic illnesses. While scientists have developed methods to detect these adulterants in labs, there's a lack of quick, accessible tests for consumers to protect themselves. Authorities need to take stricter measures to stop the production and sale of adulterated honey, ensuring both food safety and the ecological sustainability of this precious resource. [27]

DISCUSSION

Honey, revered for centuries as both a delicious treat and a potent remedy, harbours a hidden "trap" when exposed to heat. While modern science and Ayurveda both extol its virtues, they warn against the detrimental effects of exceeding its thermal threshold. From a scientific perspective, heating honey, particularly above 40°C, destroys key enzymes like invertase and diastase, hindering our sugar digestion. Additionally, it diminishes its antioxidant power and potentially releases harmful compounds like HMF, raising concerns about long-term health impacts. Ayurveda echoes these concerns, emphasizing the delicate balance of honey's properties. Fresh honey, with its sour notes, can disturb the *Doshas*, while aged honey, stored for at least a year, promotes balance and healing. However, heating disrupts this balance, exacerbating honey's "Ushna" (hot) characteristics and potentially leading to imbalances and indigestion. The incompatibility with hot substances like water further underscores the fragility of honey's essence. Studies show that heating beyond 140°C, especially when combined with ghee, significantly increases HMF production, raising concerns about potential toxicity.

Beyond heat, other factors like adulteration pose threats. Studies warn of added sugars like cane syrup, jeopardizing honey's genuineness and potentially causing health problems like diabetes and kidney issues.

CONCLUSION

While, honey undeniably possesses remarkable health benefits, its journey from hive to human requires prudence. We must recognize its sensitivity to heat, avoid exposure to high temperatures, and be mindful of potential adulteration. By respecting its delicate nature, we can unlock the true potential of this golden nectar, ensuring its health-promoting powers continue to grace our lives for generations to come.

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CHALLENGES AND ISSUES OF MICROFINANCE IN ARUNACHAL PRADESH

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ABSTRACT

India is one of the fastest developing countries in the world, yet unemployment and poverty run deeply all over the country. In addition, the Northeastern States of India is considered the most economically backward region of the country, which lack basic banking outreach with low investment prospect. Likewise, despite the rich natural resources and diverse socio-culture, Arunachal Pradesh has failed to grow on par with the other states of the country in terms of education, infrastructure, financial services, and other overall development. The present study attempts to analyze the challenges and issues of microfinance in Arunachal Pradesh and examine the existing scenario of microfinance in the state. The study focuses on the various problems faced by poor individuals and the authorities, which restrict the growth of the microfinance sector. The paper concludes that, despite the slow growth it is an undeniable fact that microfinance has been acknowledged as an effective measure to overcome poverty and attain balanced regional development. Further, the government can add a new dimension to the fight against underdevelopment in rural Arunachal Pradesh by implementing adequate measures to overcome several challenges.

KEYWORDS: Poverty, Unemployment, Microfinance, Self Help Group-Bank Linkage Programme (SHG-BLP)

INTRODUCTION

Combating unemployment and poverty has been the main challenge of successive Governments in India, and the major causes have been the unavailability and inaccessibility of adequate credit facilities. To overcome these challenges and achieve sustainable development among the deprived population, the microfinance approach was introduced. The microfinance system facilitated poor households with various financial services to enhance their living standard by investing in small businesses and meeting their financial needs in times of emergencies (Dey, 2015). In a developing country like India, the importance of the microfinance system cannot be undermined as it plays a vital role in the socio-economic development of the rural population and low-income individuals. Microfinance is considered an effective tool for mitigating poverty by providing a broad range of financial services such as micro deposits, microloans, money transfers, micro-insurance, micro-savings, etc. (Shareef, 2022).

According to CGAP “ Microfinance is providing credit, savings, and other financial services to the poor, which includes working capital credit, and supplementary fundamental financial services like consumer loans, pension, insurance, and cash transfer services (N, K, & R, 2018). Microfinance can be defined as a provision of thrift, credit, and other financial services of a small amount to the poor in rural, semi-urban, or urban areas to enable them to raise their income level and improve living standards. Therefore, it is considered one of the most successful innovations in the fight against poverty and unemployment.

OBJECTIVE OF THE STUDY

The key objective of the study is to analyze the challenges and issues of microfinance in Arunachal Pradesh and examine the existing scenario of microfinance in the state. The article attempts to understand the various problems faced by poor individuals and the authorities, which restrict the growth of the microfinance sector.

RESEARCH METHODOLOGY

The present study is based on both primary and secondary data. Primary data were collected through personal interviews with the microfinance beneficiaries whereas the secondary data was gathered from several sources like journals, articles, government reports & websites, etc.

MICROFINANCE IN INDIA

The microfinance industry has covered a long journey from micro credit to micro-insurance, micro-enterprise, micro remittance, and micro livelihood. The gradual development process has boosted the rural population in India to attain reasonable socio-economic growth and cultural empowerment. The government-led contemporary microfinance movement started through the NABARD-sponsored pilot project of the SHGs bank linkage program in 1992. It circulated guidelines to banks for financing self-help groups by targeting to finance 500 SHGs across the country through the banking system (Amarnani, Amarnani, & Achuthan, 2010). This encouraged the Reserve Bank of India to include SHG financing as a major activity of the banks under the priority sector lending in 1996. As per NABARD microfinance operations are spread across 641 districts in 36 states and union territory. Further, the Self



Help Group Bank Linkage Programme (SHG-BLP), is the largest microfinance program in the world, in terms of client base and outreach.

Some of the common ways of delivering microfinance to the poor population in India are as follows:

- Self Help Group Bank Linkage Program
- Individual Banking Program
- The Grameen Model
- Mixed Model

CHALLENGES OF MICROFINANCE IN ARUNACHAL PRADESH

India is one of the fastest developing countries in the world, yet unemployment and poverty run deeply all over the country. As most of the population resides in rural regions, the need for microfinance policies in India cannot be ignored. Therefore, the government has created an environment to promote the activities of microfinance. To do so, the government and the financial institutions must recognize and accept microfinance as a genuine financial activity instead of looking at it as a secondary segment within the financial system (Wangsa, 2021). In addition, the Northeastern States of India is considered the most economically backward region of the country, which lack basic banking outreach with unpleasantly low investment prospect. Likewise, despite the rich natural resources and diverse socio-culture, the state of Arunachal Pradesh has failed to grow on par with the other states of the country in terms of education, infrastructure, financial services & schemes, and other overall development.

According to the official website of NABARD, the microfinance savings and loans outstanding among the eight northeastern states shows that Arunachal Pradesh has the least number of Self-help groups and the highest percentage of Non-Performing Assets towards outstanding loans. To improve the microfinance activities in the state, several banks and financial institutions have initiated ways to guide the underprivileged region to overcome poverty and transform society with further access to financial activities. Among the northeastern states, Assam has the maximum number of Self-help groups and saving amounts with banks, as it constitutes more than eighty percent of the total SHGs in the region. On the other hand, Arunachal Pradesh constitutes only 1.08 percent of the total SHGs and it recorded the lowest amount disbursed with just ₹202.98 lakhs. Similarly, in the case of Non-Performing Assets over the total loan outstanding with the banks, Arunachal Pradesh recorded 24.27 percent, whereas Shikim has only 1.81 percent.

Some of the common problems and challenges encountered by the stakeholders of the microfinance industry in Arunachal Pradesh are as follows-

- **Geographical factors:** The low infrastructure development such as the lack of proper concrete roads, and far-off locations of the villages from the capital regions acts as a disadvantage to the microfinance beneficiaries as well as the authorities in communicating and implementing various schemes.
- **Low education level:** Most of the microfinance beneficiaries reside in a rural region and the majority of

them lack basic education, which prevents them from acquiring knowledge on projects that would uplift their livelihood.

- **Lack of financial literacy:** The microfinance authorities fail to provide training and development opportunities to every rural village due to limited resources. Thus, the lack of adequate financial literacy becomes a major challenge in the development of microfinance activities.
- **Language barriers:** The microfinance beneficiaries are mostly underprivileged individuals, who lack basic access to education and are confined to their community. Therefore, most of them have limited fluency in the official languages, and hence it creates a breach in communication between the microfinance participants.
- **Psychological factor:** The poor individual lacks self-confidence in taking financial risks and due to lack of banking experience, it becomes difficult for them to trust the authorities and invest their time and money in the various financial schemes. Such psychological factors also lead to several issues which hinder the growth of microfinance.
- **Negligence of urban poor:** The various initiatives and schemes introduced by the government and the Non-Governmental Organisations mainly focus on uplifting the living standard of the poor households in the rural region by neglecting the poor individuals in the urban society. Such negligences further lead to unequal distributions of wealth among the urban poor population.
- **Political interference:** In most cases, the government schemes and projects are directed or distributed through the panchayat leaders at the grassroots level. This political interference leads to biases while distributing the benefits of the project.
- **Lack of proper management:** One of the major challenges encountered by the microfinance industry is the absence of appropriate management by the authority. Their lack of proper research and dedication creates a serious issue in the smooth operations and outreach.
- **High interest rate:** Another factor that hinders the growth of microfinance is the non-uniform rate of interest charged by the SHGs and the MFIs. They charge interest at their discretion which discourages poor individuals from borrowing microcredit.
- **Problems of different income levels:** Generally the Self Help groups are formed by the people with homogeneous socio-economic status and level of income. However, in some cases, the goals and objectives of the members may differ due to their different income levels. Such differences create issues in the decision-making of the SHGs.
- **Limited economic opportunities:** As mentioned earlier there are very few income-generating opportunities in the state of Arunachal Pradesh. Some SHGs earn their additional income only through daily wages. These limited economic opportunities restrict the growth of financial services as well as the development of the state on par with other regions.



MEASURES TO OVERCOME CHALLENGES

To achieve sustainable development, some of the measures to overcome the challenges encountered by the microfinance sector are:

- **Infrastructure development:** Most of the rural population fails to seize the opportunities of various government schemes due to poor infrastructure such as bad road connectivity, inadequate internet connection, etc. Such problems can be addressed by developing the basic infrastructure among the deprived community, to facilitate them with proper access to financial services.
- **Organise seminars and workshops program:** To promote the marketing habits among the marginal farmers periodical seminars and workshops may be conducted to encourage income-generating activities and micro-entrepreneurial skills
- **Encourage NGOs:** Through its innovative projects the government may encourage Non-Governmental Organisation to undertake microfinance activities as one of their main objectives.
- **Digitalization of record books:** Computerisation of the book of accounts maintained by the Self Help Groups can improve the financial transactions within the group. Therefore the microfinance authorities may promote digitalization of record books for smooth functioning and monitoring.
- **Extensive financial literacy program:** To educate deprived households about systematic microfinance services saving habits and other business activities, extensive financial literacy may be conducted at regular intervals.
- **Transparent interest rate:** The rate of interest on microfinance differs from one microfinance agency to another. This pricing policy confuses the borrower and makes them feel incompetent in terms of bargaining power. Therefore a uniform practice of interest rate may be followed by all microfinance institutions.
- **Focus on other non-financial aspects:** Microfinance should not be confined only to financial activities. The authorities may concentrate on other non-financial aspects such as abolishing socially evil practices such as child labor, opium cultivation, women's harassment, etc.

CONCLUSION

The needs and wants of poor households are diverse and their credit requirements are unlimited as they need credit for different purposes such as consumption, working capital, fixed capital, etc. Thus, the existence of several problems and challenges are unavoidable. However, the emerging microfinance evolution has designed financial products and services that enable the poor to expand and diversify their economic activities, increase their income level, and improve their social connections, especially among the women groups. The concept of microfinance is relatively new to the people in Arunachal Pradesh and to obtain sustainable development there must be continuous growth in all segments of the poor population i.e., marginal farmers, microfinance beneficiaries, and micro-entrepreneurs. Hence, despite the slow growth it is an undeniable fact that microfinance has been acknowledged as

an effective measure to overcome poverty and attain balanced regional development. Likewise, with the implementation of adequate measures to overcome the challenges the government can add a new dimension to the fight against underdevelopment in rural Arunachal Pradesh.

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AI REVOLUTIONIZING AIRPORT OPERATIONS: ENHANCING PASSENGER AND BAGGAGE HANDLING FOR EFFICIENCY AND BETTER CUSTOMER EXPERIENCE

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ABSTRACT

In several industries, including aviation, artificial intelligence (AI) is having a revolutionary effect. This article examines how AI is transforming airport passenger and baggage handling. It looks at how AI technology may improve airport operations' overall customer experience, accuracy, and efficiency. The study approach used to obtain insights is discussed, important findings are presented, and ramifications and future directions in this quickly developing topic are concluded in this article.



INTRODUCTION

In these busy Airports, moving people and their belongings with ease is crucial. The conventional approaches of managing large numbers of travelers and baggage have frequently faced problems with mistakes, inefficiencies, and delays. However, the way airports handle passenger flows and luggage logistics has changed dramatically as a result of the incorporation of AI technologies.

Biometric identification, robots, predictive analytics, and machine learning algorithms are just a few of the many uses of AI in airport operations. These developments have greatly improved resource efficiency, shortened procedures, and improved the overall traveler experience.

RESEARCH METHODOLOGY

The research methodology adopted for this study involved a comprehensive literature review of academic papers, industry reports, and case studies related to AI implementation in passenger and baggage handling at airports. Additionally, interviews and discussions with industry experts, airport authorities, and technology providers were conducted to gather first-hand insights into the practical applications and implications of AI in this domain.

CASE STUDY – BANGALORE AIRPORT TO BECOME AI EFFICIENT ¹

Bengaluru International Airport Ltd. said that its computer vision-based artificial intelligence (AI) platform has been integrated into the airport's operations in collaboration with Industry.ai, a local



computer vision firm, and Nvidia Corp., a US tech company. The firms announced in a joint statement that the system will be installed at Terminal 2 of the Bengaluru airport. The airport will track lines at several checkpoints across the terminal, assess and clear traffic, locate abandoned luggage, and notify security personnel of any suspicious moves using the video analytics and AI platform.

In order to accomplish this, the platform will concurrently link to 500 live camera feeds located throughout Terminal 2. These feeds will then be connected to Industry.ai's data analytics portal, which has the capacity to generate up to 12 outcomes depending on the video feeds. These results will contain indicators for spotting traffic jams and safety issues like speeding or questionable vehicle movements beyond the terminal.

The new international terminal in Bengaluru is among the first in the nation to have the Center-backed DigiYatra face recognition

travel approval tool deployed there. With support from the Union Civil Aviation Ministry and developed by Hyderabad-based Dataevolve Solutions, DigiYatra currently runs at seven airports, including Bengaluru, Delhi, and Kolkata.

SCOPE OF STUDY

AI Applications in Passenger Handling: This research will examine the several AI applications—such as biometric authentication, virtual assistants, predictive analytics for crowd control, and customized customer care—that are utilized in airport passenger handling procedures.

AI in Logistics and Baggage Handling: To reduce errors and improve luggage processing efficiency, this area of study looks into AI-driven advances in baggage handling systems, including automated tracking, sorting, and security checks.



Impact on Efficiency and Customer Experience: The research will evaluate how the application of AI has improved overall customer satisfaction and experience, decreased wait times, and strengthened security protocols at airports.

Technological and Regulatory Difficulties: This study will briefly discuss the difficulties that AI deployments in airport settings may face, including data privacy concerns, integration complications, and regulatory compliance issues.

Future Directions and Implications: The report will offer information about possible developments in AI technology for airports in the future as well as suggestions for how stakeholders may fully utilize AI while resolving issues and guaranteeing a smooth travel experience.

Geographical and Operational Context: The research will take a wide geographical view, taking into account different airports all over the world, and it will examine the many operational



settings that AI is applied in, varying according to the size and infrastructure of the airports.

A thorough grasp of how artificial intelligence (AI) is transforming airport operations, particularly in the areas of

passenger and baggage handling, can be attained by clearly defining the study's goals and scope. This will enable recommendations for further advancements and improvements in this field.



FINDINGS

Biometric Authentication: AI-driven biometric solutions shorten lines at boarding gates and security checkpoints by enabling faster and more secure identity verification. Technologies like fingerprint scanning and facial recognition have improved security protocols while speeding up passenger screening.

Predictive analytics: AI systems use past data analysis to estimate traveler volume, maximizing personnel and resource distribution. This lowers wait times and improves operational efficiency by enabling airports to adjust to changing demand.

Automated baggage handling, sorting, and tracking is made possible by computer vision systems and robotics powered by artificial intelligence. This reduces instances of improperly handled luggage and enhances luggage routing accuracy, which raises customer satisfaction.

Chatbots and virtual assistants: AI-driven chatbots and virtual assistants give travelers access to real-time information by answering questions regarding services, flight status, and terminal navigation. This improves the traveler experience in general.

Enhancements to Security: AI-driven surveillance systems reinforce airport safety protocols by tracking and analyzing video streams for any security risks.

CONCLUSION

An era of efficiency, precision, and customer-focused services at airports has begun with the integration of AI technologies in luggage and passenger management. These developments have improved operational efficacy overall, decreased wait times, strengthened security protocols, and eased typical pain areas. Notwithstanding, several obstacles persist, including regulatory compliance, data privacy issues, and difficult technology integration.



Airports must overcome these obstacles as artificial intelligence (AI) develops further in order to fully realize the revolutionary potential of AI systems for handling passengers' bags and passengers' journeys. In order to fulfill the growing needs of the airline sector and guarantee a smooth travel experience for customers, it will be imperative to embrace AI-driven technologies.

In summary, airports have a great deal of opportunity to change how they operate and create smarter, more efficient, and passenger-friendly spaces thanks to the continual breakthroughs in AI. Accepting these developments will be essential to determining how air transport develops in the future.

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ENHANCING PASSENGER EXPERIENCE AND SECURITY IN AIR TRAVEL THROUGH DIGI YATRA: A LITERATURE REVIEW OF KEMPEGOWDA INTERNATIONAL AIRPORT

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ABSTRACT

The objective of this study is to examine the execution and consequences of the Digi Yatra program at Kempegowda International Airport, with a particular emphasis on the ways in which it improves both airport security and the general passenger experience. Using digital and biometric technology, Digi Yatra, an Indian government-backed digital effort, seeks to optimize the passenger experience from point of entry to point of departure.



RESEARCH OBJECTIVES

Analyze Kempegowda International Airport's Digi Yatra implementation process.
Analyze how Digi Yatra affects the boarding, security, and check-in procedures for passengers.
Analyze how well digital and biometric technology can improve airport security.
Examine how passengers at Kempegowda International Airport see and accept Digi Yatra.
Determine probable obstacles and problems that may arise throughout the Digi Yatra's execution, then provide fixes.

METHODOLOGY

To acquire both qualitative and quantitative data, conduct surveys and interviews with passengers, airline employees, and airport authorities.

Examine performance indicators and airport data both before and after Digi Yatra is put into use.

To investigate best practices in other airports that have launched comparable digital projects, use case studies and comparative analysis.



Analyze the security features built into the Digi Yatra system and how well they work to keep out unwanted access.

ABOUT DIGI YATRA

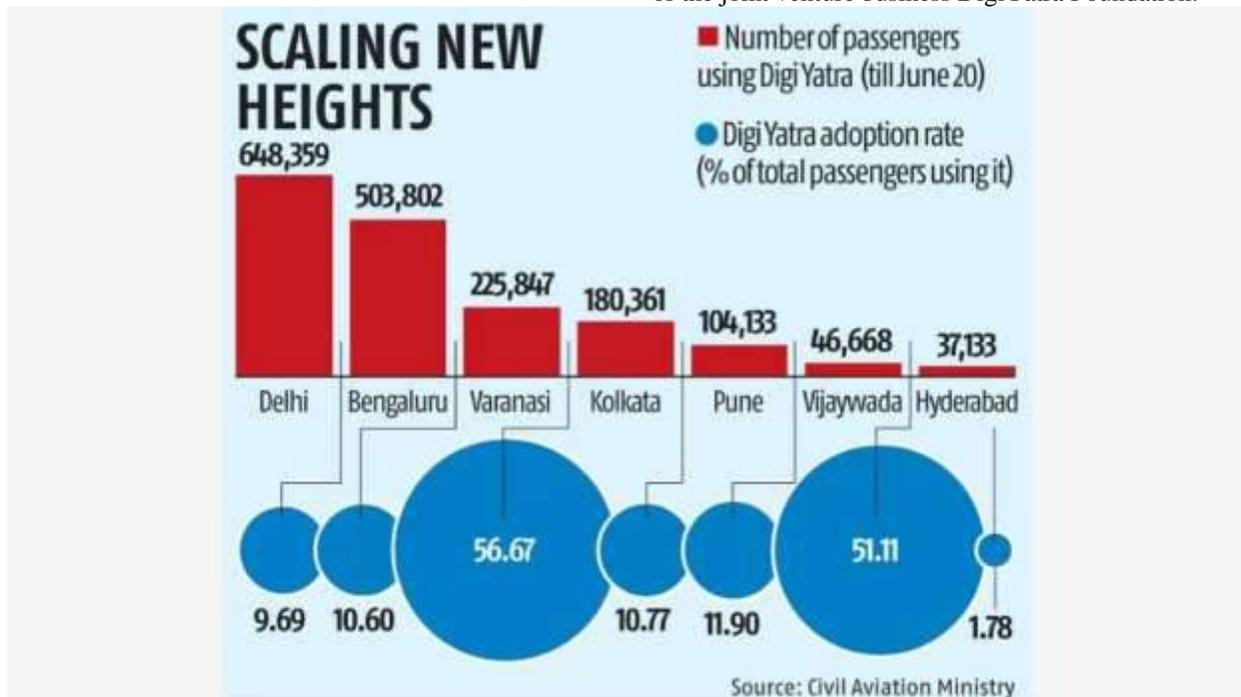
According to DigiYatra, passengers will use paperless and contactless procedures to move through airport checkpoints, verifying their identity with facial features that are connected to their boarding card.

With this technology, all checkpoints—airport entry, security checkpoints, aircraft boarding, etc.—would automatically process passenger entries based on facial recognition technology.

IMPLEMENTATION

The Ministry of Civil Aviation's DigiYatra Foundation is carrying out the initiative.

The Airports Authority of India, Bengaluru, Delhi, Hyderabad, Mumbai, and Cochin International Airports are the shareholders of the joint venture business DigiYatra Foundation.



SIGNIFICANCE

Airport traffic is lessened and flying is more convenient thanks to facial recognition technology.

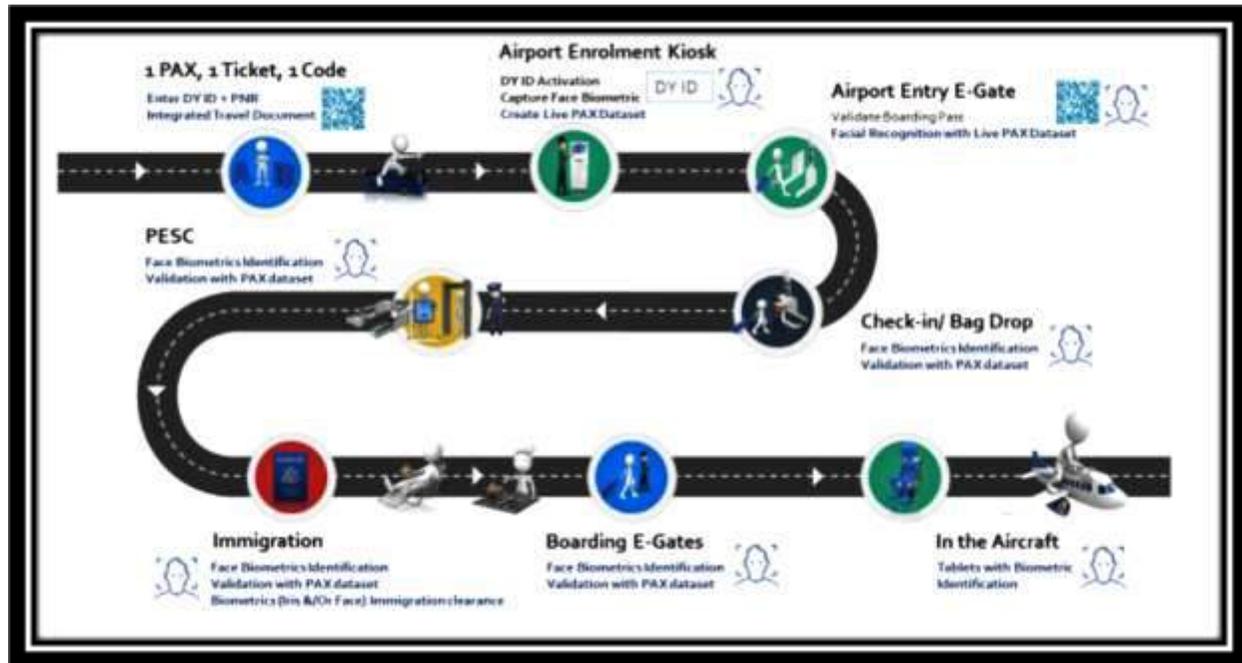
Airports all over the world, including Dubai, Singapore, Atlanta, and Narita (Japan), have benefited from increased efficiency because to the implementation of facial recognition technology.

Lead to operations at a reduced cost.

Improve efficiency by digitizing the manual processes that are already in place.

Raise security requirements and boost system efficiency.

India is redefining the worldwide standard for a smooth, hassle-free, and health-risk-free airport experience with Digi Yatra.



EXPECTED CONTRIBUTIONS

Give an analysis on how well Digi Yatra has worked to enhance the traveler experience at Kempegowda International Airport. Evaluate Digi Yatra's effect on airport security and pinpoint areas that require enhancement.

Make suggestions on how to grow and improve the Digi Yatra programme in additional airports.

Participate in the larger discussion about the use of digital technologies in aviation and how it affects security and passenger convenience.

This research issue is relevant for the aviation business as well as policymakers interested in digital initiatives in air travel, since it integrates aspects of technology deployment, passenger experience, and security.

FINDINGS

The amount of time it takes to process passengers has decreased significantly, particularly at the airport entry e-gates where it was cut in half as compared to the manual method.

Faster procession times are also being recorded by the boarding e-gates. The airport wants 60 to 70 percent of travelers to use the biometric travel system. When this objective is accomplished, the full extent of the personnel count and processing time reduction will be quantifiable and completely evident.

CONCLUSIONS

In summary, the literature review of Kempegowda International Airport's implementation of Digi Yatra underscores the positive impact of digital technologies on both passenger experience and

security within the aviation sector. The synthesis of existing research emphasizes the successful integration of biometric authentication, paperless travel, and centralized databases, contributing to streamlined processes and heightened security measures. While acknowledging the potential challenges and the necessity for ongoing refinements, the collective evidence suggests that Digi Yatra has played a pivotal role in enhancing the overall efficiency, convenience, and safety of air travel at Kempegowda International Airport.

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STUDY OF FORTH BHAVA

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ABSTRACT

This study carried out under the title of 'The fourth bhava is a study' is very useful to know about house, vehicle, mother, property, education in one's life; with this, it was done to know in detail and to be helpful in doing many more studies. The hypothesis of the study is to create and confirm the rules for the study of 'fourth sin' and to confirm that the influence of the planets Moon, Mercury and Venus, which are considered as the planets for the study, is present in the horoscopes. Based on these, this study is undertaken.

KEYWORDS- Bhava, Lagna, Rahu, Kalatra Sthana, Bhagya Sthana

I. INTRODUCTION

Astrology and astronomy are not separate sciences but they are interrelated. In today's world we think of astronomy as a practical science and astrology as a theory and analysis without any scientific connection. Astrology and Astrology have been revered and followed by the people who originated in India more than 7000 years ago.

In fact, astronomy describes the position of stars and planets in our solar system, galaxies and the entire universe. Astrology is a scientific statement that talks about how the positions of the planets in our solar system will affect all human beings at what time in our life journey. Astrology is an excellent mathematical method of accurate calculation to know the desired result of the country and horoscope through planets, rasi and stars, to determine the future events and to know the future events. They predicted future events based on nature and visible planets.

II. THE EFFECT OF PLANET IN THE 4TH BHAVA

If Sun is in the 4th Bhava

- High rank government job
- Prosperous life
- Will be a good earner
- Frequent heat illness in the body
- Electricity failure occurs frequently at home
- If the Sun loses its strength, this result will be hindered

If Moon is in 4th Bhava

- Harmful to mother – Karaha Bhava Nasti
- Other than that all are good results
- The house will be spacious
- A very popular feeder
- Sandalwood is a favorite
- Degree positions available

If Mars is in 4th Bhava

- Physical health may not be perfect
- Fights with mother often, mother gets depressed

If Mercury is in the 4th Bhava

- Will pass the course.
- Interested in music and arts.

If Guru is in 4th Bhava

- Pass the course
- Interested in Vedanta
- Government assistance
- Good friendly family atmosphere
- Strong faith in his own religion

If Venus is in the 4th Bhava

- Vahana yoga
- Devotion to mother
- Peaceful family life
- Thoughtful thing
- Fulfillment of desires

If Saturn is in the 4th house Bhava

- The mother cannot
- Mother's physical condition and mood will be affected.
- Mother's affection is not properly received.
- There is also a rule that step-parents will arise.
- There is often some disturbance in the physical condition of the horoscope.
- House is not so easy. Even if it is located, there will often be problems in that house.
- Old vehicle, old house is most likely. Even more often there is a repair problem.
- If this place is aspected by auspicious planets, the result will be good.
- Separation from mother at an early age
- Gas disturbance
- Disturbance from house and vehicle
- Lazy character
- Lack of respect among own carers
- Nature of solitude
- Non-availability of mineral assets.

If Rahu stands in the 4th house Bhava

- The mother will be depressed



- Own house is not well placed. Although born in a big house, they come to a small house with time.
- There is a possibility of having two wives
- There will be disruption in higher education
- Do stupid things
- Behaves without credibility.

III. FORTH BHAVA PREDICTION RULES

Rule No.1

Subagrahas are associated with 4th Bhava

Rule No.2

4th Bavadhipathi rulership, ascendant.

Rule No.3

Uchha, Neechha, Vagraahas are associated with 4th Bhava

Rule No.4

Planets Moon, Mercury and Venus are associated with 4th Bhava

IV. HOROSCOPE TABLES

Example Horoscope : 01

Date of Birth	: 28.08.1979	Time of Birth	: 07.45 PM
Place of Birth	: Thanjavur	Lagna	: Aries
Signs	: Libra	Star	: Swathi- 4
DasaBhukthi	: Rahu Dasa 04 Years 05 Month 12 Days		

	LAGNA		MARS
KETU	RASI		MERCURY JUPITER
			VENUS SUN RAGU SATURN
			MOON

MOON JUPITER MERCURY MARS			LAGNA
KETU	NAVAMSA		SUN VENUS
			RAGU
			SATURN

Rules Applied in Horoscope Table

• **As per Study Rule No.1** - Due to the presence of auspicious Guru and Mercury in the 4th Bhava, the Jataka has studied higher in Law. Jataka's mother is a teacher. Jatakar has a degree in singing.

• **According to study no.4** - As the auspicious Guru is exalted in the 4th Bhava, the Jataka is living in a very expensive house and has also built a small temple inside the house.

• **According to Rule No.5** - As Subagraham Budha is in 4th Bhava, Jataka has also bought a flat. He has also completed fellowship in neurology.

Example Horoscope : 02

Date of Birth	: 05.01.1985	Time of Birth	: 01.55 PM
Place of Birth	: Dindukkal	Lagna	: Taurus
Signs	: Aquarius	Star	: Mrigaseerism 3
DasaBhukthi	: Mars Dasa 05 Years 04 Month 03 Days		



EXPLORING THE POTENTIAL OF BLUE TERNATE AS A FUNCTIONAL INGREDIENT IN THE DEVELOPMENT OF HEALTHY POTATO-BASED PRODUCT

Marilyn M. Soliman, MAT, LPT

ABSTRACT

"Clitoria ternatea, commonly known as butterfly blue ternate, belongs to the Fabaceae family. In the culinary landscape, particularly in the Philippines, its vibrant blooms are widely utilized as a natural food colorant for tea, juices, and traditional delicacies like 'kakanin.' The striking combination of bright deep-blue and white hues adds aesthetic appeal to various dishes.

Beyond its culinary applications, this plant holds significance in animal nutrition, as goats can be fed on it, owing to its favorable flavor and nutritional content. Moreover, the leaves, blossoms, and roots of Clitoria ternatea are reported to possess valuable medicinal properties, including analgesic, antipyretic, and anti-inflammatory attributes.

The plant's diverse benefits extend to antioxidant, anti-diabetic, anti-microbial, anti-anthelmintic, hepatoprotective, and anti-asthmatic qualities, contributing to its potential in addressing a spectrum of health concerns.

This study delves into the composition of Clitoria ternatea flowers, considering both their nutritional elements and chemical analysis. The findings presented herein underscore the multifaceted utility of Clitoria ternatea, not only as a culinary enhancer but also as a source of valuable compounds with significant implications for health and nutrition."

KEYWORDS – *Clitoria ternatea, Chemical analysis, Biological effects, functional ingredient.*

INTRODUCTION

Butterfly Pea is known as Asian Pigeon Wings, Blue Bell Vine, Blue Pea, Cordofan Pea, and Darwin pea, scientifically known as *Clitoria ternatea* is an amazing brain-boosting herb native to tropical equatorial Asia. *Clitoria ternatea* has been consumed for centuries as a memory enhancer, brain booster, anti-stress and calmate agent which is good for school children. Butterfly Pea is full of health-promoting antioxidants, flavonoids, and peptides and has shown considerable promise in animal studies as a natural remedy for a range of health complaints according to Kazuma, K., et.al (2003).

The following are the benefits of Butterfly pea (*Clitoria ternatea*) that are good for grade school and high school students. It helps improve eyesight since it contains an antioxidant called proanthocyanins, which increases blood flow to the capillaries of the eyes. It also helps improve hair growth since it is rich in bioflavonoids, butterfly pea can promote hair growth and reduce greying of hair. It also improves skin since it stimulates collagen and elastin synthesis, which helps rejuvenate the skin and lessen wrinkles and other signs of aging. Butterfly pea is also considered an aphrodisiac, particularly for women, and used to treat menstruation problems or white vaginal discharge or (leucorrhea)

which most of the girls in the high school department encounter during their periods.

This flower is also used to enhance cognitive function and boost brain function, which is very important, especially to school children. This butterfly pea help promotes normal urination, which in turn lowers blood pressure. This is also a good analgesic since it has been used traditionally as a local anesthetic as it has been shown to help relieve pain and swelling. There are also studies that say that this has a calming effect on the body, and it also helps reduce stress and anxiety which is good for students nowadays. It is also used in common cold, cough, and asthma as it acts as an expectorant and reduces the irritation of respiratory organs. There are studies that show that butterfly pea is anti-cancer and anti-tumor since this can cause cancer cell death by disrupting cell membrane integrity. Aside from that, it is also anti-diabetic, anti-HIV, anti-microbial, anti-convulsant, and anti-pyretic as studied by Neda, G.D. et al (2013)

It has recently attracted a lot of interest as it has potential applications both in modern medicine and agriculture and as a source of natural food colorants and antioxidants. Here in the Philippines, it's very uncommon that Filipinos will plant butterfly



pea plants or *Clitoria Ternatea* in their backyards, particularly in the cities where they only have limited space. We seldom see butterfly pea flowers on the shelves of supermarkets despite the so many health benefits that we can get by consuming and using these flowers in our cookery activities.

This butterfly pea flower becomes in demand during this pandemic since many people were able to show the importance and benefits of this herb on their TikTok and YouTube accounts. Aside from blue ternate the researcher also used ipomoea batatas Lam also known as sweet potato. This sweet potato is a well know prostrate annual herb that is smooth and shiny. It belongs to the plant family Convolvulaceae. It is cultivated for its tubers that are red, white, or yellow in color. The leaves are ovate-cordate and lobed. When fully mature it puts forth many purple, funnel-shaped flowers arranged on long stalks. The seeds are smooth and shiny. This ingredient is also medicinal and can be used as medicine for those who are having diarrhea and can work as a laxative.

This paper will help promote the value and benefits that we can get with these butterfly pea flowers. Since butterfly pea flower is rich in anthocyanins, which are the antioxidant compounds responsible for its' unique, striking, vibrant blue color. This plant also contains several other antioxidants, including *kaempferol* this is a compound that has been studied extensively for its cancer-fighting properties. It also contains p-Coumaric acid which could have anti-inflammatory, antimicrobial, and antiviral effects and may help protect against disease. It is also loaded with vitamins A, C, and E and is considered caffeine-free according to (*Khurian 2010*). This butterfly pea flower is generally considered safe when used in moderation. Because of this, the researcher embarked on the development of food products utilizing butterfly pea as one of the base ingredients. The end goal was to come up with products that are affordable and nutritious to supplement the nutritional needs of elementary and high school students at San Isidro Integrated school.

According to the study made by Manju Latu Zingare et al., in 2009, the following are the agronomic information in propagating the Blue Ternate pea plant.

- (1) Soil Adaptation – blue ternate is well adapted to grow in a wide range of soil types with pH ranges 5.5 – 8.9 from deep alluvial to sandy including calcareous soils. It is extremely well adapted to heavy clay alkaline soils, especially on clay soils but also grows well in moderately fertile soils.
- (2) Water Requirement- It requires approximately 400mm of rainfall but also performs well under irrigation areas and grows from drier to fair drought tolerant areas. Due to the nature of Blue Ternate, it cannot tolerate prolonged inundation or water logging but can tolerate short-term flooding.

- (3) Favorable temperature and sunlight – It need moderate temperature down to 25 degrees Celsius but is not suited to locations with frequent frosts or severe frost, but it stands up well in hot summer temperatures and has low frost tolerance. It is moderately shade tolerant but can normally grow in full sunlight

(4) Fertilizer Requirement – Blue ternate is normally grown in soil containing phosphorus (P) and sulfur (S) which may be required as fertilizers if sown in infertile soils; and

(5) Propagation – The blue ternate pods contain around 20% of hard seed according to the seasonal conditions in where it is produced and grow rapidly in warm-moist weather. It is harvested manually by hands and is propagated from seed or by cuttings by Manju Latu Zingare, (2009).

DEVELOPMENT OF BLUE TERNATE FLOWERS

The researcher planted this blue ternate plant following the agronomic information in propagating blue ternate pea plant as shown in these pictures below:

Dry the collected blue ternate seeds for two days



Seeds were placed in a wet towel for two days until they sprouted as seen in the picture.



It was planted in wet organic soil.



THE PLANT STARTED GROWING AS SHOWN IN THE PICTURE



AFTER 20 DAYS OF PLANTING



AFTER 30 DAYS OF PLANTING



AFTER 40 DAYS THE RESEARCHER STARTED HARVESTING THE FLOWERS NEEDED FOR HER RESEARCH

adheres to the DepEd order no. 023 s.2020 which is the operational guidelines on the implementation of the school-based feeding program for the school year 2020-2021. This is also to maintain its commitment to providing good nutrition to learners amidst the Covid-19 pandemic. This will also help address hunger and encourage learners to eat nutritious food and contribute to the improvement of their nutritional status, provide nourishment for their growth and development, help boost their immune system, and enhance and improve their health and nutrition.

This study aims to develop new products using powdered blue ternate as one of the base ingredients. These powdered ternate will be used as one of the basic ingredients in preparing and cooking sweet potato ternate fries, and creamy ternate dip.

Specifically, it aimed to answer the following questions:

1. What are the nutritional values derived from the powdered flowers of blue ternate?
2. Is powdered blue ternate hygienically safe for consumption?
3. Is it safe and healthy to add powdered blue ternate to sweet potato fries and sweet potato dip; and
4. What is the level of acceptability of products with powdered blue ternate based on the assessment result obtained from potential consumers?

The general purpose of this study was to develop healthy food products using powdered blue ternate flowers that will be added to mashed sweet potato fries and creamy ternate dip. The determination of the nutritional value of the product, the acceptability of the products, and their shelf life will also be studied.

It will be conducted to the students and teachers at San Isidro Integrated school. The nutrient content was only an estimate of the actual products. Time and budget constraints would not allow the researchers to do chemical analysis and observe the shelf life for a longer period. The acceptability of the product was determined through a subjective evaluation using the sensory attributes of adults.

The study was confined to the utilization of blue ternate powder and sweet potatoes as the primary ingredient in all the products developed. The products used were based on existing, commercially available food products popular among grade school and Junior High school students. To observe strict adherence to the established procedures for processing. The addition of dried and powdered blue ternate to the ingredients was the only modification made in this study. Thus, subjecting the products to nutrient analysis was not necessary. Developing blue ternate powder is required since the ternate powder will be added to the products that were developed in this study.

This paper also wants to address the health and nutrition concerns of elementary and Junior High school students at San Isidro Integrated school here in Cabanatuan City. This paper also

METHODS

The study endeavored to produce food products from Butterfly pea flowers and sweet potatoes to help supplement the dietary needs of grade school and high school students. Specifically, it aimed to prepare snacks acceptable to consumers particularly the grade school and junior high school students at San Isidro Integrated school; and to foster dissemination and promotion of this innovation to the school and community. The researcher will use descriptive-qualitative method of product development. The respondents were 20 potential consumers who like to eat sweet potato fries. The researcher will apply random sampling. Data were analyzed using frequency count and percentages.

The following steps were optimized to facilitate the optimal production of blue ternate pea flowers and sweet potatoes.

STEPS IN PREPARING BLUE TERNATE FLOWERS

Figure 1 shows the steps in preparing blue ternate flowers before the development of the products using the blue ternate flower as one of the based ingredients. The researcher collected the needed number of flowers and washed them thoroughly. Then it was dried for three days under the heat of the sun. The dried flowers were pounded until pulverized. Powdered flowers were collected and placed in a closed container until needed.



DRYING THE COLLECTED BLUE BUTTERFLY TERNATE FLOWERS



PULVERIZED BLUE TERNATE FLOWERS

The following are the steps in preparing sweet potato products using powdered blue ternate flowers as additives and colorants:

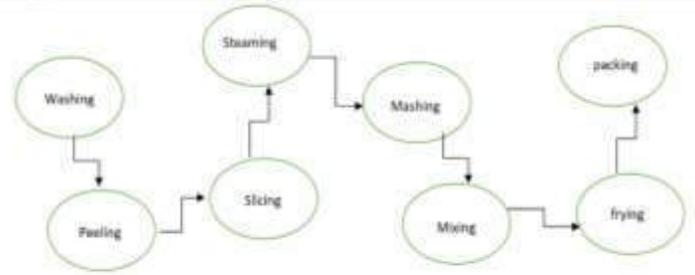


Figure 2

Figure 2 shows the procedure followed by the researcher from the start of the activity up to the last part of the development of the products. It started with washing the potatoes until clean. It was followed by the peeling of the sweet potatoes. It was sliced according to the desired size and shape before steaming it. After steaming it was followed by mashing. Then other ingredients were mixed with it and form it into desired shapes before frying and packing.



PREPARATION OF THE NEEDED MATERIALS FOR THE PRODUCT DEVELOPMENT

Prepare all the necessary tools and cooking materials and ingredients needed before the development of the product.





1. Wash thoroughly and prepare sweet potato



2. Peel and slice the sweet potato into desired shapes.



4. Boil and drain the potato thoroughly



5. Mash the sweet potato evenly using fork or blender.



6. Prepare all the necessary ingredients needed.



7. Combine all the ingredients in a bowl.



8. Add the powdered blue ternate then mix.





Form the mixture into desired size and shapes



SECOND TRIAL RESULT



THIRD TRIAL RESULT



FINAL PRODUCT WITH PACKAGING



DURING EVALUATION STAGE

The tables below were the trials of the products that were modified and developed by the researcher using powdered blue ternate or the *Clitoria ternatea* (butterfly pea) flowers and sweet potatoes as the main ingredient in preparing sweet potato ternate dip and sweet potato ternate fries. The table below shows the results of the trial made by the researcher.

Table 1 shows the results of the trial 1 to 3 of the researcher.

Table 1

Materials: Sweet potato ternate dip

Ingredients	Trial 1	Trial 2	Trial 3
Powdered blue ternate	1 tbsp	1 tbsp	1/8 tsp
Mashed Sweet potato	3/4 cup	1/2 cup	1/2 cup
Mayonnaise	1/2 cup	1/2 cup	1/2 cup
Garlic powder	1/2 tsp	1/2 tsp	1/2 tsp
Black pepper	1/4 tsp	1/4 tsp	1/4 tsp
Cornstarch	Not included	1 tsp	Not included
ketchup	2 tsp	1 tsp	1 tsp
Worcestershire sauce	1 tsp	1/2 tsp	1 tsp

Sweet Potato Dip Procedure

Ingredients

- 1/2 cup mayonnaise
- 2 tablespoon ketchup
- 1 teaspoon Worcestershire sauce
- 1/2 teaspoon garlic powder
- 1/4 teaspoon black pepper
- 1/8 teaspoon powdered blue ternate
- 1/2 cup mashed sweet potato

Instructions

1. Prepare and wash all the needed ingredients
2. Pare, slice, and steam the sweet potatoes
3. Mix all ingredients together until smooth
4. Cover and store refrigerated until needed.

The trials were done using different measurements for some ingredients. This was done since there are parts of the study where the researcher noticed that some ingredients are lacking, and some are needed. This is also the reason why the researcher used different amounts of ingredients and some ingredients were not included in other trials. In trial 1 as shown in the table, the researcher did not include cornstarch since it was not available during trial 1.

The researcher noticed after observing the result of the first trial that cornstarch should be added. During the second trial, ketchup was not included since it makes the color of the developed product a little darker, so the researcher decided to remove it in the second trial, this is also to show the natural color of blue ternate which is purple, also in the third and last trial. In the third trial, the researcher added an additional 1/2 tsp of cornstarch since during the trial the researcher noticed that it is better to add an additional 1/2 tsp of cornstarch. The result of the third trial shows that the measurements were just enough for the product that is being developed by the researcher, as shown in the pictures below.





Table 2

Sweet Potato Ternate Fries

Ingredients	Trial 1	Trial 2	Trial 3
Sweet potato	2 cups	2 cups	2 ½ cups
Salt	1/8 tsp.	1/8 tsp.	1/8 tsp.
Cornstarch	2 tbsp.	1 ½ tbsp.	1 tbsp.
Blue ternate powder	1/8 tsp.	1/8 tsp.	1/8 tsp.
Cooking oil	2 cups	2 cups	S cups
Ground pepper	A pinch of pepper	A pinch of pepper	A pinch of pepper

Sweet Potato Fries Procedure

1. Peel and cut sweet potatoes into small chunks.
2. Fill a large pot with water and add 1 teaspoon of salt. Add potatoes and bring to a boil. Cook until fork-tender, about 20 minutes.
3. Drain and transfer to a large bowl, add salt, pepper, blue ternate powder, crushed garlic, and shredded cheese. Mash the potatoes into a smooth puree. Add cornstarch and mix/mash.
4. Transfer into a piping bag fitted with a round tip and pipe into long strips on a cutting board.
5. In a wide pan heat oil to 350F (180C). Fry mashed potato strips until golden brown and drain excess oil.

The following are the methods, where blue ternate was used:

- Blue ternate extract was used to add color to the dip
- Powdered blue ternate was sprinkled on the dip

Consumer Reactions as perceived by the five senses

Determining how food products affect consumers' senses is one of the most important goals of the food industry. It also is a primary concern for nutritionists and dietitians who develop healthier recipes. Therefore, consumer reaction as perceived by the five senses is considered a vital measure of food development. Because no apparatus can substitute for the senses in evaluating food, humans are used as test subjects done by Taur, D.J. and Patil, R.Y. (2011)

The evaluation of the food products was anchored on sensory science theory of Venkateswaran, R. (2015), which gives

importance to the value of sensory science in evaluating the characteristics of physical matter. In this method, food is uniformly prepared and presented to the respondent who records their evaluations of the product on a sensory evaluation sheet that is decoded and analyzed through statistical procedures.

Sensory evaluation is a scientific testing method for the accurate measurement of human responses as perceived by the five senses. Sensory evaluation according to Gatchalian, M.M. (2019), to be objective, must be with a considerable degree of reliability and validity. For food products, the sensory qualities are appearance, texture, aroma, and taste. Appearance is sensed by the eye. The texture is the mechanical stimulation of the sense organs represented by the tongue, gums, and the hard and soft palate. Aroma considers the fragrance or odor of a product as perceived by the nose. Taste is the perception of the stimulus through the taste buds which are primarily located on the tongue.

The general concept advocated in this study is graphically illustrated in figure 3.

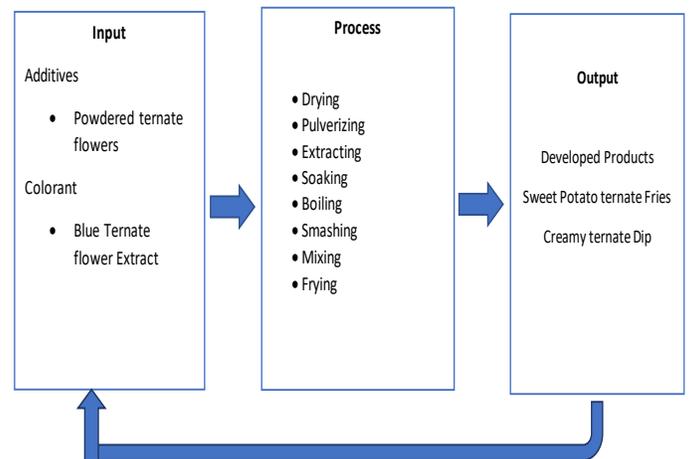


Figure 1: The Process of the product development from the preparation to the finished product

Development of the food products was carried out in San Isidro Integrated School, Cabanatuan City. Butterfly pea flowers were collected, thoroughly washed, and air-dried. With the use of a blender or food processor, the leaves were ground finely and kept in sealed bags at room temperature. This was done prior to the development of each product to ensure clean and safe materials, free of any contamination. Stocking of materials was not done to prevent the development of molds and other undesirable microbes. For products requiring extracted butterfly pea flowers, the fresh butterfly pea flowers were processed right at the preparation process

The standard procedures for the preparation of the products developed were carefully observed. The addition of ground butterfly pea flowers among the ingredients was an added procedure. At least one cup of ground flowers was added for every volume set in the standard procedure.



The developed food products were subjected to evaluation by TLE teachers in the elementary and secondary levels in San Isidro Integrated school who are specialists in food. Likewise, as they are the primary target consumers, grade school and Junior High School students were involved to ensure the acceptability of the products.

RESULTS AND DISCUSSION

Nutrient values of Blue Ternate

There are studies that showed that using the powdered blue ternate product was hygienic and safe for consumption. Since there are so many studies and products produced using powdered ternate as additives and colorants, we can say that it is safe to use it for the development of these products.

Table 3. Acceptability of blue ternate

Reasons to use	Number	Percentage
Naturally produced with no preservatives	4	20.0
Plenty of health benefits	8	40.0
Suited for their taste	3	15.0
All reasons (attractive color, convenience, it has a pleasant odor, health, and wellness benefits)	5	25.0
Total	20	100.0

Based on table 3, the results of the acceptability of the developed product such as blue ternate fries and blue ternate dip the result showed that 4 potential consumers or 4 or 20%, positively accepted blue ternate fries and dip, 8 or 40% agreed that blue ternate product has plenty of health benefits, 3 or 15% agreed that the developed products are suited to their taste and 5 or 25% agreed that the products have attractive color, pleasant odor, and is convenient to use if it is readily available in the market in nice and convenient packaging.

Developed products such as blue ternate fries and blue ternate dip had shown good indicators of marketability because of their nutritional value, as indicated in the results. Overall results showed that the developed product using powdered blue ternate has positive acceptability. If we based on the context of market acceptability, it is considered that the possibility of producing product using powdered blue ternate have a high market segment in terms of consumers. In terms of economic profitability, it will cater to the future source of livelihood for those who are involved in large and sustainable production.

The products developed were Potato Ternate Fries and Creamy Ternate Dip using powdered blue ternate and sweet potatoes as the basic ingredients. Potato ternate fries are a refreshing twist on the classic French fries. Fried mashed potato ternate sticks are made of mashed sweet potatoes and powdered butterfly ternate flowers. These homemade mashed potato fries are crispy on the

outside and soft and cheesy on the inside. They are easy to make and perfect as a snack especially made for grade school and high school students.

Product development, packaging, and value-adding for the commercialization of sweet potato blue ternate fries and sweet potato blue ternate dip are highly recommended. Mass production of this product will boost backyard growers of sweet potato products and blue ternate flowers to start a small-scale –business of selling plants’ vegetative parts for propagation. Having stated the health and wellness benefits of blue ternate, the researchers also recommend the propagation of this herb in the backyards of every household for the consumption of the family.

Butterfly blue ternate or *Clitoria ternatea* or is found to possess a significant number of advantages and natural properties against several diseases and ailments in the human body. Based on this study, Kurian, J. (2010), it is hoped that the butterfly pea flowers can be cultivated as one of the leading crops in the world that will be accepted by medical practitioners due to their natural properties and effectiveness in combating several well-known diseases and ailments and as additives and colorants for a food product.

Further research is encouraged to use other parts of this herbal plant such as leaves, stems, fruits, and roots to further develop its nutritive potential and medicinal benefits.

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MELASMA ETIOLOGY AND TREATMENT: A SYSTEMATIC REVIEW

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ABSTRACT

Introduction: Melasma is a common chronic refractory pigmentation disorder that predominantly affects women and individuals with darker skin types. It significantly alters quality of life and self-esteem because of its disfiguring skin appearance.

Objective: to detail current information related to melasma, etiology, epidemiology, pathophysiology, histology, presentation, treatment and prognosis.

Methodology: a total of 30 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 19 bibliographies were used because the other articles were not relevant to this study. The sources of information were PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: melasma, laser, pigmentation, skin.

Results: Females are more affected than males in a 9:1 ratio. Melasma is infrequent prior to puberty and more common in the reproductive years. Melasma is found in 15% and 50% of pregnant women. The prevalence is 1.5% and 33% depending on the population. The most notable factor is exposure to sunlight. Next to pregnancy, direct sun exposure is the most important risk factor for melasma, shown by 27% to 51% of individuals as a trigger and 84% as a clinical deterioration factor. Approximately 83% to 93% of individuals with melasma have modifiable levels of solar elastosis.

Conclusions: The treatment of melasma continues to be a challenge, because of the fact that the spots do not disappear completely in most of those affected, in addition to presenting considerable recurrence rates. The first line management is adequate sun protection and the association of sunscreens with color and topical bleaching agents, which may have a different effect on melanogenesis. In case oral medications are needed, tranexamic acid presents the best evidence for treatment. Some procedures support the treatment of melasma, such as microneedling and chemical peels that act through epidermal renewal. Lasers should be used with extreme caution because heat induces post-inflammatory melanogenesis. The combination of topical bleaching agents with medications and oral procedures provides more rapid effects, however more studies are needed regarding the treatment of the condition.

KEY WORDS: melasma, laser, pigmentation, skin.



INTRODUCTION

Melasma is a common chronic refractory pigmentation disorder that predominantly affects women and individuals with darker skin types. It significantly alters quality of life and self-esteem because of its disfiguring appearance on the skin. The overall prevalence ranges from 8.8% to 40%, depending on the ethnicity of the population and location. It usually appears on the cheeks, chin, bridge of the nose, forehead and above the upper lip. There are currently several treatments available for melasma, with mixed results, because the therapeutic management of this pathology is considered a challenge due to the high recurrence rates that greatly alter the quality of life of affected individuals. Pregnancy is a common cause of melasma, just as melasma occurs in women taking oral contraceptives and hormones. At the time of the study no single treatment is completely effective. There are studies showing promising results with systemic treatments with tranexamic acid and Polypodium leucotomatous, however, the former was associated with several systemic side effects. Microneedling and peeling are also alternatives considered effective in some studies, although their superiority over topical hydroquinone, which is the gold standard in the management of melasma, has not been established at this time. Likewise, laser and light devices have been useful. Combination therapies have better results than single therapies. It is recommended that the choice of treatment be made appropriately after Wood's lamp examination and dermoscopic evaluation to choose the best treatment alternative for each subtype of melasma(1-7).

METHODOLOGY

A total of 30 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 19 bibliographies were used because the information collected was not important enough to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in Spanish, Portuguese and English were: melasma, laser, pigmentation, skin.

The choice of literature exposes elements related to melasma, etiology, epidemiology, pathophysiology, histology, presentation, treatment and prognosis.

DEVELOPMENT

Melasma is a common recurrent pigmentary disorder that significantly alters quality of life and at present there is no curative treatment available. Photoprotection against UVB, UVA and blue-violet visible light is critical to treatment victory, as are topical therapies that lead to tyrosinase inhibition; hydroquinone and triple combination cream are the gold standard drugs. Oral therapies with tranexamic acid and microneedling along with topical therapies can significantly increase the efficacy of management. Superficial peels and low-fluence laser therapy increase melanin clearance from the epidermis, which accelerates clinical results(8).

Etiology

The etiological factors of the condition are several such as ultraviolet (UV) radiation, pregnancy, genetics, hormonal therapies, phototoxic drugs, anticonvulsant drugs and some cosmetics. Melasma stimulates melanocytes through female sex hormones estrogen and progesterone, producing more melanin pigments when the skin is exposed to the sun(9-11).

Melasma is more common in the female sex, with genetic predisposition being a notable factor in the development of melasma. Individuals with light brown skin in parts of the world with high sun exposure are more likely to have the condition. About half have a positive family history of the condition, and identical twins with melasma have been reported. Ultraviolet radiation can generate peroxidation of lipids in cell membranes, originating free radicals that stimulate melanocytes to produce excess melanin. The longer wavelengths of UV-A and visible radiation (320-700 nm) are not blocked by sunscreens that block UV-B radiation (290-320 nm), thus stimulating melanocytes to produce melanin. Hormones may play a role in the development of melasma in certain individuals; there is evidence of a 4-fold increase in thyroid disease in individuals with melasma; in addition, there is a relationship between the development of melasma and having melanocytic nevi or lentiginous nevi, which would show a relationship between the development of melasma and the presence of pigmentation.

Mask-like appearance in pregnancy is relatively common, the mechanism is not yet fully elucidated, however it is thought that estrogen, progesterone and melanocyte stimulating hormone levels normally increase during the third trimester of pregnancy, becoming an important factor in its development. Women with nulliparous melasma do not have increased levels of estrogen or MSH, however, they have elevated amounts of estrogen receptors within the lesions. On the other hand, melasma has been seen with oral contraceptive pills containing estrogen and progesterone, as well as diethylstilbestrol treatment for prostate cancer. A postmenopausal patient given progesterone may form melasma, whereas those given estrogen alone do not, suggesting that progesterone plays a crucial role in the formation of melasma.

Epidemiology

It usually affects people of any race. Melasma is more common in darker skin types compared to lighter skin types, and is uniquely more common in light brown skin types. Women are more affected than men by a 9:1 ratio. Melasma is uncommon prior to puberty and more common in the reproductive years. Melasma is found in 15% to 50% of pregnant women. The prevalence is 1.5% and 33% depending on the population.

Pathophysiology

The most notable factor is exposure to sunlight. Ultraviolet radiation induces the manufacture of alpha-melanocyte stimulating hormone and corticotropin, as well as endothelin 1 and interleukin 1, helping to increase melanin generation by



intraepidermal melanocytes. Dermal inflammation induced by constant UV exposure and fibroblast activation positively regulates stem cell factors in the dermis of melasma, resulting in increased melanogenesis. Next to pregnancy, direct sun exposure is the most important risk factor for melasma, shown by 27% to 51% of individuals as a trigger and 84% as a factor of clinical deterioration(3,8,12,13).

Histopathology

Melanin increases in the dermis, epidermis or both. Epidermal melanin is located in keratinocytes in basal and suprabasal locations. Dermal melanin may also be in the superficial and mid dermis within macrophages that cluster near small, dilated vessels. Inflammation is almost absent and sometimes absent. Approximately 83% to 93% of individuals with melasma have modifiable levels of solar elastosis(3,14-16).

Evaluation

Melasma usually appears on sun-exposed surfaces as an acquired hypermelanosis, resembling symmetrically distributed hyperpigmented macules that may appear both confluent and punctiform. They occur mostly on the cheeks, upper lip, chin and forehead.

Laboratory tests are not indicated, although there are studies suggesting association with mild abnormalities in thyroid function, especially when it refers to melasma associated with pregnancy or the use of oral contraceptive pill, where it is possible to consider the use of thyroid function tests. Wood's lamp examination allows locating the pigment in the dermis or epidermis(14,17).

Figure 1. Melasma



Source: The Authors.

Treatment

Treatment of melasma is a major challenge, especially since it is prone to constant relapses despite proper removal. Some literature shows that the best treatment is a topical combination of hydroquinone cream and avoidance of sun or estrogen exposure. The use of sunscreens has an important role in prevention. The first line treatment for melasma consists of effective topical therapies, especially in the form of triple combinations (hydroquinone 4%, tretinoin 0.05% and fluocinolonone acetonide 0.01%), although dual treatments can also be used(3,18).

Chemical peels and lasers can generate unpredictable effects and are associated with adverse effects such as post-inflammatory hyperpigmentation, epidermal necrosis and hypertrophic scarring. These interventions are used as a second line, although it is recommended to use them only in case of previous therapeutic failure; correctly applied chemical peels and lasers

usually generate fast results compared to topical medications. Skin peels have a risk of adverse results, the peels use elements based on glycolic acid and salicylic acid that increase the renewal of hyperpigmented keratinocytes. They usually start monthly with low concentration formulas and are followed by weekly applications at higher concentrations. Lightening agents are used in combination with superficial peels to show better effects. Skin peels should only be used after a test therapy with at least one skin lightening agent. Extensive monitoring of skin depigmentation is required and treatment should be discontinued if necessary.

The efficacy of laser for the treatment of melasma is associated with undesirable cosmetic effects. In cases of extensive disease that is refractory to the use of laser, it may worsen the condition(3).



Platelet-rich plasma (PRP) may be another promising form of treatment for melasma, but there is currently no consensus on a standardized method of PRP preparation or platelet concentration. Platelets present several elements such as epidermal growth factor, platelet growth factor, transforming growth factor (TGF) β 1 and β 2. Which exert on pigment metabolism and inflammation and reach to restore dermal structures affected by melasma(8).

Research evidence that radiofrequency microneedling is an effective treatment for refractory melasma, however, more studies on the subject are needed(19).

Other studies also reported that hydroquinone monotherapy and triple combination cream are the most effective treatments and improving melasma, leaving chemical peels and laser and light based therapies as equal or inferior to topicals, generating more risk of adverse effects. Oral tranexamic acid can be used as a systemic adjunctive treatment, but more evidence is needed to demonstrate its long-term safety and efficacy(2).

Figure 2. Melasma before and after treatment.



Source: Cassiano DP, Espósito ACC, da Silva CN, Lima PB, Dias JAF, Hassun K, et al. Update on Melasma-Part II: Treatment(8).

Differential Diagnosis

- Frictional melanosis.
- Mastocytosis.
- Nevi of Ito and Ota.
- Actinic lichen planus.
- Drug-induced photosensitivity.
- Exogenous ochronosis.
- Poikiloderma of Civatte.
- Postinflammatory hyperpigmentation.
- Acanthosis nigricans.
- Discoid lupus erythematosus.
- Pigmented contact dermatitis.

Prognosis

According to several studies, melasma has no associated morbidity or mortality because no cases of malignant transformation or association with increased risk of melanoma or other malignant neoplasms have been reported; on the other hand, individuals affected with melasma are considered to have a lower

risk of developing melanoma. Dermal pigment may take slightly longer to clear compared to epidermal pigment because there is no effective therapy to remove dermal pigment. However, management should not be terminated by a preponderance of dermal pigment alone. The origin of dermal pigment is the epidermis and by having an inhibited epidermal melanogenesis for long periods, the dermal pigment will not be replenished and will gradually resolve. Resistance or recurrences of melasma happen relatively frequently and will occur more easily if sunlight is not strictly avoided(3).

CONCLUSIONS

The treatment of melasma continues to be a challenge, because the spots do not disappear completely in most of those affected, in addition to presenting considerable recurrence rates. The first-line management is adequate sun protection and the association of sunscreens with color and topical bleaching agents, which may have a different action on melanogenesis. In case oral medications are needed, tranexamic acid presents the best evidence for



treatment. Some procedures support the treatment of melasma, such as microneedling and chemical peels that act through epidermal renewal. Lasers should be used with extreme caution because heat induces postinflammatory melanogenesis. The combination of topical bleaching agents with medications and oral procedures provides more rapid effects, however more studies are needed regarding the treatment of the condition.

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A CRITICAL REVIEW OF RESEARCH STUDIES ON THE MENTAL HEALTH OF ADOLESCENTS PREPARING FOR COMPETITIVE ENTRANCE EXAMS IN INDIA

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ABSTRACT

This critical literature review aims to investigate the mental health of adolescents preparing for competitive entrance exams in India, focusing on depression, anxiety, and stress levels. The purpose is to provide a comprehensive understanding of the emotional well-being of this vulnerable population and inform policymakers, educators, and parents about the need for holistic support systems.

In this critical literature review, the researcher has analyzed and incorporated insights from various studies to present a comprehensive overview of the topic.

KEYWORDS: *Mental health, competitive entrance exams, depression, anxiety, academic stress*

1. INTRODUCTION

In the contemporary landscape of education in India, competitive entrance examinations such as the joint entrance examination (JEE) for admissions to NITs and IITs or the National Eligibility cum Entrance Test (NEET) for admissions to medical colleges represent a defining aspect of the academic journey for countless adolescents. These rigorous assessments, gateways to prestigious institutions and promising careers, often manifest as both aspirations and apprehensions in the lives of young individuals. However, the intense competition and unrelenting pressure associated with these examinations are recognized sources of substantial stress, anxiety, and depression.

This study seeks to delve in to the mental health aspect of adolescents undergoing the rigorous preparations for these common entrance exams. Specifically, it aims to investigate the levels of depression, anxiety and stress experienced by these adolescents and draw comparisons between different groups based on factors such as gender, socio-economic background, and preparation duration and geographic region of residence.

Depression is a mood disorder which cause a persistent feeling of sadness, loss of interest which can also leads to a feeling of worthlessness. Stress is a state of worry or mental tension caused by difficult situations an individual undergoes. Whereas anxiety is intense and persistent fear that interrupts everyday functioning.

It may result fast heart rate, rapid breathing, sweating and feeling tired may occur.

The significance of this study lies in its potential to shed light on the mental health challenges faced by a vulnerable segment of the population and inform policy makers, educators, and parents about the need for holistic support systems and by understanding the psychological toll of exam preparation, we can work towards fostering a more balanced and healthier academic environment for adolescents in the country.

Background: India's educational system is renowned for its rigorous nature and the extraordinary competition that it fosters, particularly in the field of competitive entrance examinations. These examinations, encompassing an array of disciplines from engineering and medicine to management and arts, are perceived as the threshold to a future loaded with opportunities. While success in these assessments holds the promise of a bright and fulfilling future, the journey toward that success is often characterized by a considerable degree of stress and anxiety.

The challenges and complexities that adolescents encounter during their exam preparations are further aggravated by the sheer magnitude of competition. The psychological impact of this phenomenon cannot be underestimated, and recent years have witnessed a rapid increase in the number of students grappling with symptoms of depression, anxiety, and stress. Recognizing



the critical significance of addressing these issues, this research aims to undertake a comprehensive analysis of the mental health challenges faced by adolescents in the specific context of competitive entrance exams in India.

2. REVIEW OF LITERATURE

Khalid S. Al-Gelban, Hasan S al-Amri, and Ossama A Mostafa conducted a study on Prevalence of Depression, Anxiety and Stress as measured by DASS-42 among secondary school girls in Abha, Saudi Arabia (2009) [1]. Out of more than 500 girls recruited in their study, 3 out of every 4 girls had the symptoms of at least one of the three disorders; One out of every two had at least two disorders, The prevalence of symptoms of depression, anxiety and stress was respectively 41.5%, 66.2% and 52.5%. Majority of students showed symptoms of intensity mild to moderate. The researchers found that there is no significant association between the girls' sociodemographic characteristics and the scores of Depression, anxiety and stress.

Nirmal Verma, Meeta Jain and Preetam Roy (2014) [2] studied Assessment of Magnitude and grades of Depression among adolescents in Raipur City, India. The study highlighted the prevalence of depression among adolescent school students and focused on various social factors that may have an association with depression. Out of about 300 students included in the study, 40% found mildly depressed, and 19% had major depression. Depression was found more in girls (59.5%), compared to boys(56.2%). Statistically significant factors examined for association with depression were working mothers, students staying away from home, poor relationship with family and self or parental dissatisfaction with academic achievements. The researchers came to a conclusion that only happy and confident adolescents are likely to grow into adults who can contribute to the building of a prosperous nation.

A study was conducted by Surabhi Chauhan, Panna Lal and Harsavardhan Nayak (2014) [3] on Prevalence of depression among school children aged 15 years and above in a public school in Noida, Uttar Pradesh. In 360 students 209 were boys and 151 were girls. The overall prevalence of depression was observed to be 38%. About three fourth of the subjects had mild depression, 23% had moderate and only one found to had severe depression. Among the boys 35% were depressed but among girls this rate was found to be nearly 42%. The study also showed that a considerable number of adolescents were experiencing turmoil during this phase leading to poor academic performance and coping methods and suicidal ideations

Man Mohan Singh, Madhu Gupta and Sandeep Grover (2017) [4] conducted a study on Prevalence and factors associated with depression among school going adolescents in Chandigarh, North India. This study showed that 40% of school going adolescents had depressive disorders. Being in a government school, studying in class 10 or 12, residing in rural areas, physical abuse by elders in the family, smoking and drinking by parents, spending less time in studies not participating in co-curricular activities and

having a boy or girl friend are identified as significant associated factors.

Shailendra Kumar Mishra, Mona Srivastava, Narendra K Tiwary and Abhinit Kumar (2018) [5] studied Prevalence of depression and anxiety among children in rural and suburban areas of Eastern Uttar Pradesh. This cross-sectional study was conducted on 200 participants in the age group of 11 – 18 years, of which 55.5% were boys and 44.5% were girls. Researchers could conclude that 15% suffered from anxiety disorder and 14.5% percent suffered from depression. They couldn't find any significant difference between in the prevalence of depression or anxiety in students from rural and suburban areas. Depression was found more in students of classes 9-12, whereas anxiety was more prevalent in students of lower classes. Depression was found to be more prevalent in students from joint families. Depression and anxiety were found more in middle adolescents, girls and in children belonging to lower middle socioeconomic groups. This study provided useful information for early management of psychiatric disorders present in the community and prevent their development into chronic disorders.

The studies conducted by Ashish Shrivastava and Done Rajan (2018) [6] on Assessment of Depression, Anxiety and Stress among Students Preparing for Competitive Exams provided a deeper understanding on depression, anxiety, stress. The study was also to identify their social aspects, the various responsible factors and their ill effects on health and daily life. Out of the 400 participants, 19.5% were suffering from mild depression, 20.3% in moderate depression and 8.8% were found to be severely depressed. The anxiety was found to be mild in 21.8%, moderate in 17.8% and severe in 27.3% of the participants. The stress levels were found to be mild in 19%, moderate in 14.8% and severe in 7.5%.

K Jayashree, P Prasanna Mithra, M K C Nair, and Keshava Pai (2018) [7] studied Depression and anxiety disorders in school going adolescents in an urban area of south India. The researchers found that coexisting anxiety and female gender are significantly associated with depression. Increasing age, socioeconomic factors and parental education are other factors influencing depression and anxiety. Out of the 201 participants in the age group 15-18 years 67.2% were from urban areas and the rest were residing in rural areas. 80% were from nuclear family, 12% from extended and 8% from joint families. They found that 40.7% were depressed and the level of depression were found to be higher in girls. 54.7% were found to be anxious with the level of anxiety higher in girls.

A study was conducted by by Neeti Pachole, Aditya Thakur, et al. (2023) [8] to Explore Patterns and Factors of Depression, Anxiety and Stress among students preparing for competitive exams in central India. Out of the 400 students participated, 65.8% were below 18 years of age. 42.7% of the participants were girls. 20.3% were suffering from moderate and 8.8% from severe depression. 17.8% were moderately anxious and 27.3% were severely



anxious. 14.8% had moderate and 12% had severe stress. The study highlighted common factors leading to depression anxiety and stress among students. Stress was found to be significant in females and in students having more than two siblings. Students having non-supportive teachers were found to be significantly anxious. Significant depression was found in students having non-supportive parents and those who sleep for less than 6 hours and study less than 2 hours on a day.

3. CONCLUSION

This critical literature review illuminates the intricate landscape of the mental health challenges encountered by adolescents preparing for competitive exams in India. By analyzing the findings from various studies, it illuminates the prevalence of depression, anxiety, and stress in this vulnerable population. The research design, encompassing factors like socio-economic status, preparation duration, and regional disparities, contributes to a nuanced understanding. The study underscores the need for holistic support systems, informing policymakers, educators, and parents about the imperative to foster a balanced and healthier academic environment. This research adds original insights, emphasizing the importance of addressing mental well-being to ensure the overall development of adolescents in the context of rigorous exam preparations.

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A STUDY ON CONSUMER BEHAVIOUR TOWARDS ORGANIZED RETAIL STORES IN BHOPAL CITY

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ABSTRACT

Today, India's retail industry is on a constant growth path. In India, the retail marketplaces are still growing despite everyone's expectations. As India is the world's 5th most preferred shopping destination, increased participation of international and domestic players will lead to intense customer competition. In terms of shopping malls, the retail space is expanding at a rapid pace in Bhopal. Shopping malls and retailers at shopping malls need to be able to attract a larger number of customers to share growth strategies.

This study will contribute to examining consumer behaviour concerning the presence of organized retailers in Bhopal. The main aim of the research is to find out the factors that can help organized retail stores to design a better retail mix strategy for attracting more customers and ensuring their long-term survival. To attain the goals of this study, the researcher has collected Secondary data and reviewed suitable literature. The study conducted in Bhopal city reveals that retail store location and discounts & offers are the most important criteria proffered by consumers to choose the outlet. Consumers are also attracted to buy from an organized retail outlet by a wide range of product characteristics, atmosphere, quick payment process, customer service, parking facilities, and a systematic display.

KEYWORDS: Organized Retail, Consumer Behaviour, Buying Behaviour, Purchase Behaviour, Retailing.

INTRODUCTION

The study of consumer behavior revolves around how individuals and groups allocate their resources to seek out goods and services that they believe will meet their needs and desires. Numerous factors influence their decision-making process when it comes to a specific product, service, or brand. Consumers go through a series of steps to determine their preferred product or service.

Therefore, "consumer behavior encompasses the process of decision-making and the physical actions involved in acquiring, evaluating, using, and disposing of goods and services." This suggests that it is not solely about the act of purchasing goods and services, but also involves a process that begins well before the actual acquisition. It is important to comprehend how consumers react to different products. Consumer behavior can be seen as a sequence of stimuli and corresponding responses.

Organized retailers are retail businesses that operate under government-issued licenses and are registered with tax authorities. These retailers include supermarkets, hypermarkets, specialty stores, and chain stores, which are owned and managed by prominent business conglomerates such as Aditya Birla Group, Future Group, Reliance Group, RPG Group, and others.

These retailers may adopt various store formats, such as departmental stores, malls, and specialty stores, to cater to

different customer preferences and needs. The range of goods offered by organized retailers spans categories such as food, grocery items, apparel, jewelry, consumer durables, footwear, cosmetic products, home decor, books, and more.

One of the advantages enjoyed by organized retailers is the ability to secure bulk discounts due to their large-scale purchases. Additionally, they can reduce costs by eliminating intermediaries and streamlining the supply chain. This permits them to provide aggressive pricing to customers.

The rapid expansion of the Indian retail industry in recent years can be attributed to the fundamental economic factors in the country. Several key elements have played a tremendous role in driving the growth of the organized retail sector in India. These include the increasing number of nuclear families, the availability of convenient financing options, the growing population of financially independent women who choose to work, and the emergence of new opportunities in the service sector. As a result, there was a great shift in consumer preferences towards organized retail, leading to a steady increase in market penetration.

REVIEW OF LITERATURE

Sharma, A. & Kashyap, K., (2023), The study reveals that customers tend to prefer purchasing food and groceries from standalone businesses, while they opt for buying clothes from malls. The majority of the time, the age, education, profession,



and family size of shoppers have been significant criteria that influence store selection. Additionally, the research explores the desire of shoppers to minimize the effort involved in purchasing by reducing the distance they need to travel.

Chatzoglou, P. et al. (2022), The research model accurately predicts repurchase intentions, with merchandise value being the most important factor. In-store emotions and customer satisfaction also predict repurchase intentions. All consumer behavior, including experience, emotions, perceived value, satisfaction, and loyalty, improves repurchase intentions, urging retailers to focus on collective improvement.

Savale, T. K. et al (2021), discovered that grocery stores have experienced a shift in the retail landscape, offering a more comprehensive shopping experience and reducing costs. Modern retailers have redefined retailing, offering a wide variety of products, discounts, membership cards, and entertainment. Despite challenges, both retailers have upgraded to remain relevant. The industry is experiencing positive growth, benefiting both parties if they can overcome these challenges.

Venkateswaran, P. S. & Sundram, S. (2021), This study explores the impact of retail service quality on customer satisfaction, patronage intention, and word of mouth. It reveals that store service quality significantly influences these factors. The study also highlights the importance of physical aspects, reliability, policy, and personal interaction in influencing customer satisfaction. The results suggest that these factors significantly influence patronage intention and word of mouth.

Pandey, P. & Singh, S. (2020), The study reveals that consumers' attitudes towards organized retail are influenced by credibility, customer loyalty, and service excellence. Store features like display and atmosphere, customer loyalty programs, and branded items attract consumers. Service quality also contributes to purchasing attitudes.

Singh, S. (2020), The study reveals that gender and income are key factors influencing shoppers' choice of organized retail format in the new normal, while promotions, trust, and trained staff are the most important factors. Convenient shopping hours also play a significant role.

Preeti, & Kulshreshtha, M. K., (2018), observed that Consumers' perceptions of organized and unorganized retail outlets vary based on quality and price, influenced by disposable income changes and increased quality awareness. They prefer to purchase goods from both formats, with most respondents favoring organized retailers due to store image, product availability, and price cuts.

Sirohi, R. & Kumar, N. (2018), The study identifies six dimensions for measuring retail service quality in specialty stores in India: Inspiring Confidence, Reliability, Appearance, Problem Solving, Policy, and Courteousness. All six dimensions are statistically significant, with inspiring confidence being the most essential. Policy, problem-solving, and appearance are influential factors affecting customers'

future consumption behavior, aiding merchants in creating effective merchandising strategies.

Raunaque, N., Jibran, S. & Preeti (2017), The study found that customers are attracted to organized stores due to attractive discounts, convenience, store ambiance, and atmosphere.

Tripathy, P. C. & Tripathy, P. (2016), The study reveals gender and marital status significantly influence shopping and convenience product purchases in urban retailing formats, while household income doesn't. Retailers should segment by these factors for better customer satisfaction.

Muneendra, N. & Mohan Prakash, N.R. (2016), The study found that factors such as large assortment, product choice freedom, packaging quality, store image, parking facilities, location, ambiance, infrastructure, cleanliness, and layout significantly influence consumer perception of organized and unorganized outlets.

RESEARCH GAP

From the above review of literature, it's being observed that most of the studies were conducted in Tier I cities. Hence, there was a need to study the impact of the demographic profile of consumers on their attitude formation towards organized retail outlets in Tier II cities like Bhopal.

OBJECTIVE OF STUDY

To find the impact of consumer demographics on the frequency of visits to organized retail stores in Bhopal city.

RESEARCH METHODOLOGY

A large number of studies have been conducted in the field of consumer buying behavior and organized retail, some of which are still unexplored, but have been studied at different times in different business surroundings and different locations. One of the biggest challenges facing retailers today is dealing with the competition created by the organized retail sector. This study aims to retest the change in consumer buying behavior in organized retail using a questionnaire in Bhopal city.

Research Design: The nature of research design is inferential.

Sampling method: A convenient sampling method was used to collect the primary data.

Sample Size: A sample size of 200 was taken for the study but only 150 questionnaires were useful for the study. Hence, the study is done on 150 respondents from Bhopal City.

Data Collection Tool: Primary data has been collected by the researcher through a standard structured questionnaire consisting of 75 questions.

Sample Area: The population for the study included respondents from Bhopal, Madhya Pradesh.

Statistical Tool: Chi-square test using SPSS 26.0



HYPOTHESIS OF THE STUDY

H01: There is no significant relationship between the income of respondents and their frequency of visits to organized retail stores.

H02: There is no significant relationship between the age of respondents and their frequency of visits to organized retail stores.

H03: There is no significant relationship between the occupation of respondents and their frequency of visits to organized retail stores.

H04: There is no significant relationship between the education of respondents and their frequency of visits to organized retail stores.

H05: There is no significant relationship between the marital status of respondents and their frequency of visits to organized retail stores.

DATA ANALYSIS AND FINDINGS

As per data out of a total 150 respondents 96 (64%) were male and 54 (36%) were female.

Table 1: Demographic Analysis of Respondents

Descriptive		Gender		Total	Percentage
		Male	Female		
Age	Below 25 years	29	24	53	35%
	25 to 35 years	28	21	49	33%
	36 to 50 years	33	7	40	27%
	51 years & above	6	2	8	5%
Marital Status	Married	53	17	70	47%
	Unmarried	43	37	80	53%
Education Qualification	Metric & below	2	1	3	2%
	Under-Graduate	11	8	19	13%
	Graduate	22	13	35	23%
	Post-Graduate	47	30	77	51%
	Professional qualification, if any	14	2	16	11%
Occupation	Student	20	26	46	31%
	Business	15	1	16	11%
	Service	47	11	58	39%
	Professional	11	6	17	11%
	Housewife	1	9	10	7%
	Other	2	1	3	2%
Monthly Income	Up to Rs.15,000	28	33	61	41%
	Rs. 15,001 to Rs. 30,000	19	13	32	21%
	Rs. 30,001 to Rs. 45,000	19	4	23	15%
	Above Rs. 45,000	30	4	34	23%

The table shows that the highest number of respondents (53) were youth of age below 25 years and 53% of respondents were unmarried. This proves that youth is the driving force for the growth of organized retail in Bhopal. Similarly, 51% of the respondents have completed their Post-graduation and 39% said that their occupation service. 41% (61) of respondents out of 150 fall under the category of Rs. 15000/- monthly income.

This gives a clear picture that most youths are attracted to organized retail outlets to purchase their desired products.

HYPOTHESIS TESTING

H01: There is no significant relationship between the income of respondents and their frequency of visits to organized retail stores.

Table 2: Summary Output of the relationship between the income of respondents and their frequency of visits to organized retail stores.

Chi-Square Tests Summary Output			
	Value	df	P-Value
Pearson Chi-Square	19.226 ^a	15	.204
Likelihood Ratio	21.456	15	.123
Linear-by-Linear Association	1.268	1	.260
N of Valid Cases	150		

a. 12 cells (50.0%) have expected count less than 5. The minimum expected count is .46.

The above table exhibits that the P-value (0.204) is more than the value 0.05, so the null hypothesis is accepted. This means there is no significant relationship between the income of

respondents and their frequency of visits to organized retail stores.



H₀₂: There is no significant relationship between the age of respondents and their frequency of visits to organized retail stores.

Table 3: Summary Output of the relationship between the age of respondents and their frequency of visits to organized retail stores

Chi-Square Tests Summary Output			
	Value	df	P-Value
Pearson Chi-Square	29.631 ^a	15	.013
Likelihood Ratio	30.936	15	.009
Linear-by-Linear Association	5.868	1	.015
N of Valid Cases	150		
a. 13 cells (54.2%) have expected count less than 5. The minimum expected count is .16.			

The above table depicts that the P-value (0.013) is less than the value 0.05, so the null hypothesis is rejected and the alternate hypothesis is accepted. This means there is a significant relationship between the age of respondents and their frequency of visits to organized retail stores.

H₀₃: There is no significant relationship between the occupation of respondents and their frequency of visits to organized retail stores.

Table 4: Summary Output of the relationship between the occupation of respondents and their frequency of visits to organized retail stores

Chi-Square Tests Summary Output			
	Value	df	P-Value
Pearson Chi-Square	25.385 ^a	25	.441
Likelihood Ratio	27.603	25	.326
Linear-by-Linear Association	2.300	1	.129
N of Valid Cases	150		
a. 24 cells (66.7%) have expected count less than 5. The minimum expected count is .06.			

The above table exhibits that the P-value (0.441) is more than the value 0.05, so the null hypothesis is accepted. This means there is no significant relationship between the occupation of respondents and their frequency of visits to organized retail stores.

H₀₄: There is no significant relationship between the education of respondents and their frequency of visits to organized retail stores.

Table 5: Summary Output of the relationship between the education of respondents and their frequency of visits to organized retail stores

Chi-Square Tests Summary Output			
	Value	df	P-Value
Pearson Chi-Square	31.357 ^a	20	.051
Likelihood Ratio	32.440	20	.039
Linear-by-Linear Association	3.145	1	.076
N of Valid Cases	150		
a. 19 cells (63.3%) have expected count less than 5. The minimum expected count is .06.			

The above table exhibits that the P-value (0.051) is slightly higher than the value 0.05, so the null hypothesis is accepted. This means there is no significant relationship between the education of respondents and their frequency of visits to organized retail stores.

H₀₅: There is no significant relationship between the marital status of respondents and their frequency of visits to organized retail stores.

Table 5: Summary Output of the relationship between the marital status of respondents and their frequency of visits to organized retail stores

Chi-Square Tests Summary Output			
	Value	df	P-Value
Pearson Chi-Square	15.113 ^a	5	.010
Likelihood Ratio	16.932	5	.005
Linear-by-Linear Association	5.518	1	.019
N of Valid Cases	150		
a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.40.			



The above table exhibits that the P-value (0.010) is less than the value 0.05, so the null hypothesis is rejected and the alternate hypothesis is accepted. This means there is a significant relationship between the marital status of respondents and their frequency of visits to organized retail stores.

CONCLUSION

The research aims to gather information based on demographics such as Age, Income, Marital Status, Education and Occupation of consumers visiting organized retail stores. The study found that respondent's age and marital status have a direct and significant relationship with their frequency of visits to organized retail outlets. Based on the statistics it can be concluded that young aged respondents visit organized retail stores more frequently. Similarly, unmarried/ single respondents visit organized retail outlets more frequently than married respondents. On the other hand, respondents' income, occupation, and educational qualification do not have a significant relation with their frequency of visits to organized retail outlets. Thus, it can be concluded that the income, occupation, and education of respondent do not affect their frequency of visits to organized retail outlets.

The implications of the study can be that organized retail stores will have to formulate effective strategies to attract these youth to their retail outlets. These strategies may be such as offers & and discount schemes, promotional schemes, etc.

These are not the only factors that affect consumer behavior towards organized retail formats, multiple other factors such as product quality, service quality, ambiance, nearness to residence, parking facility, convenience in shopping, etc., need to be studied in detail.

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IMPACT OF MONETARY AND NON-MONETARY INCENTIVES- A COMPARATIVE STUDY ON THE EMPLOYEES OF SBI AND HDFC BANK

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ABSTRACT

The study aims at assessing the impact of monetary and non-monetary incentives on the performance of employees. It is an attempt to know the difference in the impact of monetary and non-monetary incentives on performance between SBI and HDFC bank employees. The data were elicited from the respondents using structured questionnaire. The Mann Whitney U test was used to test the hypotheses formulated for the study. It is found that there is significant difference in the impact of monetary and non-monetary incentives on performance between SBI and HDFC bank employees. The findings of the study state that impact of monetary and non-monetary incentives on performance of HDFC bank employees are higher than SBI bank employees.

KEYWORDS: *monetary incentives, non-monetary incentives, performance indicator*

INTRODUCTION

Employee performance is a critical determinant of the success and growth of any organization. To enhance productivity, banks like State Bank of India (SBI) and HDFC Bank recognize the significance of providing incentives to their employees. These incentives can be broadly classified into two categories: monetary and non-monetary incentives. Monetary incentives involve financial rewards such as bonuses, commissions, and salary hikes, while non-monetary incentives include recognition, career advancement opportunities, flexible work hours, and a positive work environment. This study explores the impact of these incentives on employee performance, drawing a comparison between SBI and HDFC Bank employees.

Monetary incentives play a crucial role in motivating employees to achieve their targets and goals. The promise of financial rewards can drive performance by aligning employees' interests with the organization's objectives. At both SBI and HDFC Bank, monetary incentives are commonly used to reward exceptional performance, foster healthy competition, and retain top talent. At SBI, employees might receive performance-based bonuses and salary increments for meeting predefined targets and key performance indicators (KPIs). These incentives can encourage employees to work diligently, resulting in enhanced productivity and customer service. Similarly, HDFC Bank provides competitive compensation packages, commissions, and bonuses to its employees based on their performance. Such incentives can serve as effective tools to boost motivation and dedication among employees, leading to improved performance and overall organizational success.

While monetary incentives are essential, non-monetary incentives can also significantly impact employee performance. Recognition, for instance, is a powerful motivator that can boost employee morale and foster a sense of appreciation for their contributions. SBI and HDFC Bank both recognize outstanding employees through awards and acknowledgment programs, which can encourage others to excel in their roles. Additionally, a positive work environment and flexible work hours can contribute to higher employee engagement and job satisfaction. When employees feel supported and valued by their organization, they are more likely to be productive and committed to their work.

While both SBI and HDFC Bank utilize both monetary and non-monetary incentives, there may be differences in their approaches and outcomes. The impact of these incentives can be influenced by factors such as organizational culture, leadership styles, and employee expectations. SBI, as a government-owned bank, may have certain constraints in terms of flexibility in remuneration compared to HDFC Bank, a private-sector bank. Consequently, SBI may focus on non-monetary incentives, such as recognition and training, to motivate and retain its employees. On the other hand, HDFC Bank, as a private organization, might have more leeway in providing competitive monetary incentives, which could attract and retain high-performing employees. However, the bank must also emphasize non-monetary incentives to create a positive work environment and encourage career growth. Therefore, both monetary and non-monetary incentives significantly impact the performance of SBI and HDFC Bank employees. While monetary incentives can be powerful motivators, non-monetary incentives also play a crucial role in fostering a positive work environment and encouraging employee



engagement and loyalty. To achieve optimal results, both banks should strike a balance between the two types of incentives, considering their organizational culture and employee preferences. By recognizing and rewarding employee efforts effectively, SBI and HDFC Bank can continue to thrive and achieve sustained success in the highly competitive banking industry.

STATEMENT OF THE PROBLEM

The present research problem is to study the impact of monetary and non-monetary incentives between the performance of employees in State Bank of India (SBI) and HDFC Bank. It aims to understand how these two types of incentives affect the motivation, productivity, and overall performance of employees in the banking industry. Monetary incentives refer to financial rewards, such as bonuses, commissions, or salary increases, provided to employees based on their performance, achievements, or meeting certain targets. On the other hand, non-monetary incentives encompass non-financial rewards, like recognition, career development opportunities, flexible working hours, or a positive work environment.

The study will conduct a comparative analysis between SBI and HDFC Bank employees to identify difference in their performance. The quantitative study 100 numbers of respondents were selected from various branches of SBI and HDFC in Ernakulam District examining the impact of both types of incentives on the employees' performance, the research aims to offer valuable insights to the two banks on how to optimize their incentive strategies and enhance the overall performance and well-being of their workforce. Ultimately, this research can contribute to improving the human resource management practices in the banking sector and potentially be applicable to other industries as well.

OBJECTIVES OF THE STUDY

The study is conducted with the following objectives:

- To analyse the influence of monetary and non-monetary incentives on performance between SBI and HDFC bank employees.
- To find out difference in the impact of monetary incentives on performance between SBI and HDFC bank employees.

- To find out difference in the impact of non-monetary incentives on performance between SBI and HDFC bank employees.

HYPOTHESES

The study is based on the following hypotheses:

- H₀₁:** There is no significant difference in the impact of monetary incentives on performance between SBI and HDFC bank employees.
- H₀₂:** There is no significant difference in the impact of non-monetary incentives on performance between SBI and HDFC bank employees.

METHODOLOGY

a) Sampling

The study is both descriptive and analytical in nature. The impact of monetary and non-monetary incentives on performance between SBI and HDFC bank employees assessed by eliciting data using structured questionnaires. Convenience sampling process were used for selecting the samples for the study. A sample of 100 bank employees from SBI and HDFC Banks in Ernakulam district were taken. .

b) Data collection

Both primary and secondary data were used for the study. Primary data were collected from the bank employees by using structured questionnaires. Secondary data were collected from the websites, newspapers, journals and magazines etc. The opinion of respondents was marked on five point Likert-type scale.

c) Tools used

The data collected were analysed using SPSS. The Mann-Whitney U test is used to test the hypotheses.

RESULTS AND DISCUSSION

The fair response of 100 bank employees from SBI and HDFC banks are selected for the study. Data was found to be reliable with a Cronbach's Alpha above 0.7 of each construct. But data was found to be not normally distributed ($p < 0.05$ in KS Test) and hence, non-parametric procedures were used to draw inferences. The data were analysed using IBM SPSS 22.

FIGURE 1

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Monetary Incentives Scale is the same across categories of Bank.	Independent-Samples Mann-Whitney U Test	.120	Retain the null hypothesis.
2	The distribution of Non Monetary Incentives Scale is the same across categories of Bank.	Independent-Samples Mann-Whitney U Test	.074	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Source: Computed from Survey Data

Mann Whitney U Test

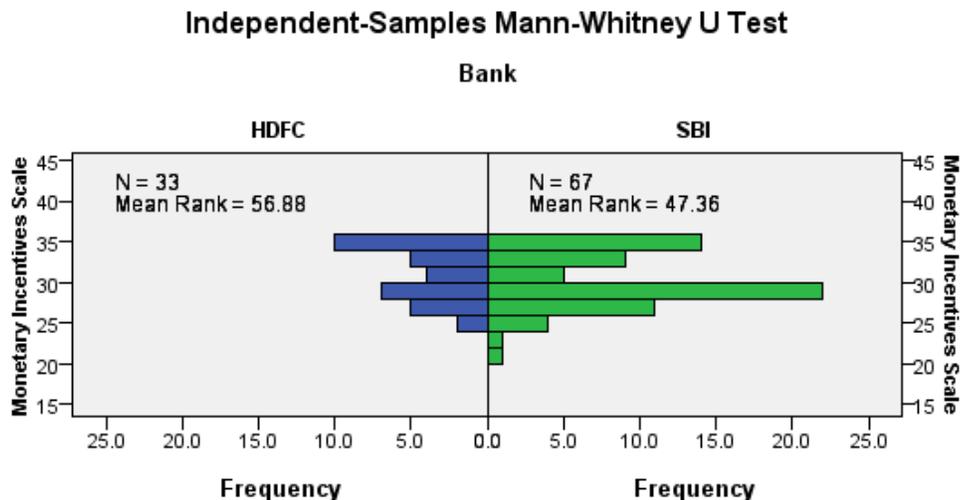
The results obtained from the analysis of the data collected were shown below:

H₀₁: There is no significant difference in the impact of monetary incentives on performance between SBI and HDFC bank employees.

An attempt made to study the difference in the impact of monetary incentives on performance between SBI and HDFC bank employees, Mann Whitney U Test was utilized. As the p value is

greater than .05 significance level, alternative hypothesis is rejected and null hypothesis is accepted. Hence it can infer that, there is no significant difference in the impact of monetary incentives on performance between SBI and HDFC bank employees.

FIGURE 2





Total N	100
Mann-Whitney U	1,316.000
Wilcoxon W	1,877.000
Test Statistic	1,316.000
Standard Error	135.369
Standardized Test Statistic	1.555
Asymptotic Sig. (2-sided test)	.120

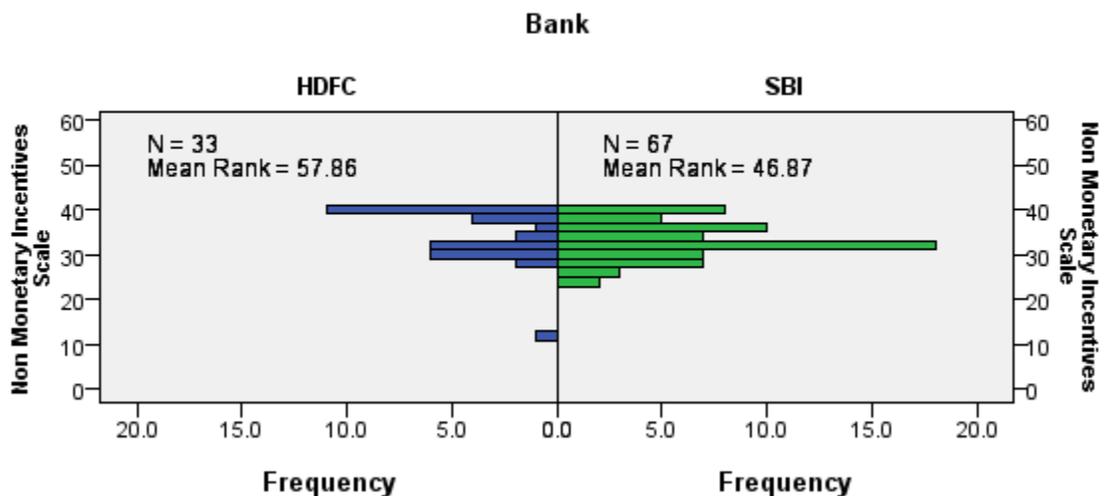
H₀₂: There is no significant difference in the impact of non-monetary incentives on performance between SBI and HDFC bank employees.

An attempt made to study the difference in the impact of non-monetary incentives on performance between SBI and HDFC bank employees, Mann Whitney U Test was utilized. As the p

value is greater than .05 significance level, alternative hypothesis is rejected and null hypothesis is accepted. Hence it can infer that, there is no significant difference in the impact of non-monetary incentives on performance between SBI and HDFC bank employees.

FIGURE 3

Independent-Samples Mann-Whitney U Test





Total N	100
Mann-Whitney U	1,348.500
Wilcoxon W	1,909.500
Test Statistic	1,348.500
Standard Error	135.840
Standardized Test Statistic	1.789
Asymptotic Sig. (2-sided test)	.074

CONCLUSION

The impact of monetary and non-monetary incentives on employee performance between SBI and HDFC Bank can vary due to their unique organizational structures, cultures, and incentive programs. Both types of incentives play significant roles in motivating employees and driving performance, but their effectiveness depends on how well they align with employees' individual preferences and the banks' overall strategic goals. As comparing with the performance between SBI and HDFC bank employees, the impact of monetary and non-monetary incentives on performance of HDFC bank employees are higher than SBI bank employees.

Monetary incentives, such as competitive base salaries, performance-based bonuses, and commission schemes, can serve as powerful motivators in both banks. They can attract and retain talent, encourage higher productivity, and lead to sales and revenue growth. However, it's crucial to strike a balance to prevent potential negative effects, such as increased stress and short-term focus at the expense of long-term strategies. Non-monetary incentives, such as recognition and appreciation programs, career advancement opportunities, and work-life balance initiatives, are equally important in fostering employee engagement and job satisfaction. These incentives contribute to a positive work culture and a sense of purpose, promoting employee well-being and long-term commitment.

To optimize the impact of incentives, SBI and HDFC Bank should consider tailoring their programs to suit employees' roles and preferences. Transparent communication, timely feedback, and continuous evaluation are essential for successful incentive implementations. Moreover, fostering a collaborative work environment that combines both types of incentives can help strike a balance between individual performance and teamwork.

By consistently evaluating the impact of their incentive strategies and adapting them to meet changing employee needs, both SBI and HDFC Bank can create a motivating and rewarding work environment. This, in turn, it will lead to enhanced employee performance, increased organizational success, and a more engaged and dedicated workforce contributing to the banks' growth and prosperity.

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EFFECT OF EMOJI IN LANGUAGE AND COMMUNICATION USE OF HIGH SCHOOL STUDENTS

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INTRODUCTION

With the increasing accessibility to technology, people are now exploring different ways to communicate with each other (Daniel & Camp, 2018). Digital technology has revolutionized communication, particularly among adolescents and young adults, who spend more time interacting digitally than face-to-face (Boutet, LeBlanc, Chamberland, & Collin, 2021). Nonverbal cues such as facial expressions and gestures play a fundamental role in conversation, providing contextual information and social information about others' emotional state and personality traits.

Emojis are a representation of this nonverbal cues. Emojis could be defined as a single picture used as a character of text (Rodríguez-Hidalgo, C.; Tan, E.S.; Verlegh, 2017). It can express a variety of positive and negative emotions, and are commonly used in digital, written communication (Pfeifer, Armstrong, and Lai, 2022). Novak et al. (2015) found that tweets with emojis were rated more positive than those without. Positive emojis make a message more positive, while negative emojis make it more negative. In other words, emojis add emotional information. Emojis may convey information in one character that might have otherwise taken several (Daniel & Camp, 2018).

Emojis bridge the gap between written and visual communication, allowing recipients to better interpret and empathize with the sender's feelings. It is used to greet, maintain, and enhance social relations while strengthening communication within a platform (Riordan, 2017). Also, emojis are a way to humanize interpersonal communications by injecting emotion, contradiction, nuance, and ambiguity, but this has caused confusion due to their lack of cross platform interoperability and confusing placement (Kirley & MacMahon, 2018). So, its usage becoming more and more diversified as well (Bai, Dan, Mu, & Yang, 2019).

Emojis have become a form of visual shorthand, promoting quick and concise communication. They're breaking down language

barriers, accelerating human interaction (Pringle, 2018). It can be used to keep a conversational thread alive, and to end one if necessary (Kelly & Watts, 2015). And most high school students have grown up with instant messaging and are comfortable using emojis to convey their thoughts and feelings (Cho, 2021). As, justified by Teh, Boon, and Gill (2020) in their study, that emoticon usage among students were greater used in less formal settings, and that it is more comfortable to use among intimate friends.

The aim of this study is to determine the effects of emoji in language and communication use as perceived by junior high school students.

METHODOLOGY

The study have used descriptively correlational research design where survey questionnaire as the main instrument in gathering data. Random Random Probability Sampling was used. There are 80 junior high school students that served as the participants of the Study. The research instrument have four parts; profile of the participants, perception on the role of emoji in communication, effects of emoji in language and communication, and effect of emoji in different communication context. The study have used SPSS to organize, treat and analyze the data gathered. ANOVA was used to determine the difference of the emoji's effects when grouped according to profile variables. And correlation was used to if there is a relationship with the effects of these variables from each other.

RESULTS AND DISCUSSION

Profile of the Respondents

The table reveals the respondents demographic profile.

**Table 1. Respondents Demographic Profile**

Profile		Frequency	Percentage
Gender	Male	27	34
	Female	50	63
	LGBTQ++	3	3
Age	13 years old and below	40	50
	14 years old	16	20
	15 years old	20	25
	16 years old and above	4	5
Grade Level	7	20	25
	8	20	25
	9	20	25
	10	20	25
Most Frequently Used Gadgets	Cellphone	71	89
	Tablet	4	5
	PC or Laptop	5	6
Most Frequently Used Social Media	FB	70	88
	Tiktok	6	8
	Instagram	3	3
	Twitter	1	1

Gender. Mostly of the student respondents with frequency of 50 or 63% are females; 27 or 34% are males; and 3 or 3% are LGBTQ++.

Age. Majority of the student respondents with a frequency of 40 equivalent to 50% are from age group of 13 years old and below; 20 or equivalent to 25% are from age group of 15 years old; 16 or 20% from 14 years old; and 4 or 5% from 16 years old and above.

Grade Level. All grade levels from grade 7 to 10 have equal quantity of 20 or 25%.

Most Frequently Used Gadgets. Majority of the student respondents with a frequency of 71 or 89% uses cellphone. Meanwhile, only 4 or 5% uses tablet; and 5 or 6% uses pc or laptop.

Most Frequently Used Social Media. Majority of the student respondents with a frequency of 70 or 88% uses FB. Meanwhile, only 6 or 8% uses Tiktok; 3 or 3% uses Instagram and 1 or 1% uses twitter.

Perception on the Role of Emoji in communication

Table 2 presents the perception of the student respondents towards the roles of emoji in communication.

Table 2. Perception on the Role of Emoji in communication

Roles of Emoji	Mean	SD	Verbal Description	Rank
1. The emoji make it easier to communicate tone and emotions.	3.61	0.63	Strongly Agree	3
2. The emoji enhance and make conversations more enjoyable.	3.74	0.44	Strongly Agree	1
3. The emoji aid in avoiding misunderstandings and making intentions clear.	3.73	0.45	Strongly Agree	2
4. The emoji make messages feel more relatable by adding a personal touch.	3.30	0.66	Strongly Agree	5
5. The emoji gives humor or sarcasm a visual form.	3.34	0.69	Strongly Agree	4
Overall	3.54	0.57	Strongly Agree	

This revealed that student-respondents strongly agreed that emoji enhances and make conversation more enjoyable evident from the highest mean of 3.74 with standard deviation of 0.44. Additionally, they also strongly agreed that emoji aid avoiding misunderstandings and making intentions clear (M=3.73,

SD=0.45); emoji make it easier to communicate tone and emotions (M=3.61, SD=0.63); emoji gives humor or sarcasm a visual form (M=3.34, SD=0.69), and emoji make messages feel more relatable by adding a personal touch (M=3.30, SD=0.66).



In overall, the student-respondents strongly agreed that emoji has significant role in communication with overall mean of 3.54 and standard deviation of 0.57.

Effects of Emoji in Language and Communication

Effects of Emoji in Language and Communication through Language Proficiency

Table 3. revealed the perception of the student-respondents on how on the effects of emoji in language and communication through language proficiency.

Table 3. Effects of Emoji in Language and Communication through Language Proficiency

Language Proficiency	Mean	SD	Verbal Description	Rank
1. Emojis provide a visual representation of emotions, making it easier to express complex feelings in writing.	3.03	0.73	Agree	4
2. Emojis enhance my understanding of the emotional meanings associated with words and phrases.	3.40	0.67	Strongly Agree	1
3. Incorporating emojis into my writing stimulates creative thinking and helps me explore alternative ways to express myself, thus expanding my vocabulary.	3.10	0.96	Agree	3
4. Emojis aid in the retention and comprehension of words and expressions across different situations.	3.19	0.87	Agree	2
Overall	3.18	0.81	Agree	

This revealed that students-respondents strongly agreed that emojis enhance my understanding of the emotional meanings associated with words and phrases evident from the highest mean of 3.40 with standard deviation of 0.67. However, they only agreed that emojis aid in the retention and comprehension of words and expressions across different situations (M=3.19, SD=0.87); Incorporating emojis into my writing stimulates creative thinking and helps me explore alternative ways to express myself, thus expanding my vocabulary (M=3.10, SD=0.96); and emojis provide a visual representation of emotions, making it easier to express complex feelings in writing (M=3.03, SD=0.73).

In overall, the student-respondents agreed that the use of emoji has an effect in language and communication through language proficiency with overall mean of 3.18 and standard deviation of 0.81.

Effects of Emoji in Language and Communication through Verbal Usage

Table 4. revealed the perception of the student-respondents on how on the effects of emoji in language and communication through verbal usage.

Table 4. Effects of Emoji in Language and Communication through Verbal Usage

Verbal Usage	Mean	SD	Verbal Description	Rank
1. Emojis positively impact my verbal communication by enhancing expression and clarity.	2.74	0.98	Agree	5
2. Using emojis in verbal communication helps convey emotions more effectively.	2.64	0.98	Agree	6
3. Incorporating emojis into conversations improves the richness and depth of my verbal expressions.	3.35	0.75	Strongly Agree	4
4. Emojis enhance my ability to communicate verbally by adding nuance and emphasis to my words.	3.38	0.80	Strongly Agree	2
5. Including emojis in my speech helps me better connect with others and convey my intended meaning.	3.39	.072	Strongly Agree	1
6. The use of emojis in verbal communication enhances the overall effectiveness and impact of my message.	3.37	0.74	Strongly Agree	3
Overall	3.14	0.83	Agree	

This revealed that students-respondents strongly agreed including emojis in their speech helps them better connect with others and convey their intended meaning with the highest mean of 3.39 and standard deviation of 0.72. They also strongly agreed that emojis enhance their ability to communicate verbally by adding nuance

and emphasis to their words (M=3.38, SD=0.80), use of emojis in verbal communication enhances the overall effectiveness and impact of their message (M=3.37, SD=0.74); incorporating emojis into conversations improves the richness and depth of their verbal expressions (M=3.35, SD=0.75). Meanwhile, they only



agreed that emojis positively impact their verbal communication by enhancing expression and clarity ($M=2.74$, $SD=0.98$); and using emojis in verbal communication helps convey emotions more effectively ($M=2.64$, $SD=0.98$).

In overall, the student-respondents agreed that the use of emoji has an effect in language and communication through verbal usage with overall mean of 3.14 and standard deviation of 0.83.

Perception on the Effect of Emoji Usage in Different Communication Context

Perception on the Effect of Emoji Usage in Different Communication Context in terms of Formality

Table 5 revealed the perception of the student-respondents on the effect of emoji usage in communication context in terms of formality.

Table 5. Perception on the Effect of Emoji Usage in Different Communication Context in terms of Formality

Formality	Mean	SD	Verbal Description	Rank
1. The use of emojis is more acceptable and expected in informal communication contexts, such as casual conversations with friends or social media interactions, than in formal communication settings.	3.29	0.80	Strongly Agree	2
2. Incorporating emojis in my messages during informal communication adds a personal and friendly touch, but may be perceived as inappropriate in formal communication.	2.49	0.99	Slightly Agree	5
3. Emojis are commonly used by students to express themselves and connect with others in casual conversations, but their usage is typically limited in formal settings.	3.05	0.87	Agree	4
4. Emojis help me convey emotions more effectively in informal communication, but their use may be perceived as inappropriate in formal contexts.	3.48	0.76	Strongly Agree	1
5. Using emojis in informal conversations creates a more relaxed and informal atmosphere, whereas in formal communication, it may be considered inappropriate.	3.09	0.86	Agree	3
Overall	3.08	0.86	Agree	

This revealed that student-respondents strongly agreed that emojis help them convey emotions more effectively in informal communication, but their use may be perceived as inappropriate in formal contexts evident from the highest mean of 3.48 with standard deviation of 0.76. Additionally, they strongly agreed that the use of emojis is more acceptable and expected in informal communication contexts, such as casual conversations with friends or social media interactions, than in formal communication settings ($M=3.29$, $SD=0.80$). However, they only agreed that using emojis in informal conversations creates a more relaxed and informal atmosphere, whereas in formal communication, it may be considered inappropriate ($M=3.09$, $SD=0.86$); emojis are commonly used by students to express themselves and connect with others in casual conversations, but their usage is typically limited in formal settings. However, they only slightly agree that emojis are commonly used by students to

express themselves and connect with others in casual conversations, but their usage is typically limited in formal settings with the lowest mean of 2.49 and standard deviation of 0.99.

In overall, the student-respondents agree that the usage of emoji has an effect in the communication context in terms of formality with an overall mean of 3.08 and standard deviation of 0.86.

Perception on the Effect of Emoji Usage in Different Communication Context in terms of Politeness

Table 6 revealed the perception of the student-respondents on the effect of emoji usage in communication context in terms of politeness.



Table 6. Perception on the Effect of Emoji Usage in Different Communication Context in terms of Politeness

Politeness	Mean	SD	Verbal Description	Rank
1. Ensure that my messages are received in the intended positive and friendly manner, reflecting a polite gesture.	3.55	0.69	Strongly Agree	1
2. Incorporating emojis in my communication enhances the clarity of emotions, tone, and intentions, promoting a more polite exchange.	3.38	0.85	Strongly Agree	3
3. The use of emojis as a way to express politeness and ensure that their messages are received positively and in a friendly manner.	3.37	0.74	Strongly Agree	4
4. Emojis serve as a tool for conveying politeness by adding emotional context and reducing the chances of miscommunication.	3.43	0.78	Strongly Agree	2
5. I believe that using emojis in communication helps me convey politeness more effectively by accurately expressing emotions and intentions	3.08	0.87	Agree	5
Overall	3.36	0.78	Strongly Agree	

This revealed the student-respondents strongly agreed that through usage of emojis, it Ensure that their messages are received in the intended positive and friendly manner, reflecting a polite gesture evident from the highest mean of 3.55 and standard deviation of 0.69. Moreover, they strongly agreed that emojis serve as a tool for conveying politeness by adding emotional context and reducing the chances of miscommunication ($M=3.43$, $SD=0.78$); incorporating emojis in their communication enhances the clarity of emotions, tone, and intentions, promoting a more polite exchange ($M=3.338$, $SD=0.85$); use of emojis as a way to express politeness and ensure that their messages are received positively and in a friendly manner ($M=3.37$, $SD=0.74$). However. They only agree that using emojis in communication helps them convey politeness more effectively

by accurately expressing emotions and intentions with the lowest mean of 3.08 and standard deviation of 0.87.

In overall, the perception of the student-respondents strongly agreed that emoji usage has an effect on the communication context in terms of politeness evident from a mean of 3.36 with standard deviation of 0.78.

Analysis of Variance to test the difference on the perception towards the roles of emojis in communication when grouped according to profile variables.

The table revealed the significant difference on the perception of student respondents in the roles of emojis in communication when grouped according to profile variables.

Table 7. Analysis of Variance to test the difference on the perception towards the roles of emojis in communication when grouped according to profile variables.

Profile		Sum of Squares	df	Mean Square	F	Sig.	Decision
Gender	Between Groups	.462	3	.154	1.400	.249	Accept Not Significant
	Within Groups	8.354	76	.110			
	Total	8.815	79				
Age	Between Groups	.202	3	.067	.596	.620	Accept Not Significant
	Within Groups	8.613	76	.113			
	Total	8.815	79				
Grade Level	Between Groups	.289	3	.096	.860	.466	Accept Not Significant
	Within Groups	8.526	76	.112			
	Total	8.815	79				
Frequently Used Gadgets	Between Groups	.113	2	.057	.501	.608	Accept Not Significant
	Within Groups	8.702	77	.113			
	Total	8.815	79				
Frequently Used Social Media	Between Groups	.102	3	.034	.296	.828	Accept Not Significant
	Within Groups	8.714	76	.115			
	Total	8.815	79				



In the table, it revealed that there is no significant difference in perception of the student-respondents towards the roles of emoji in the communication when grouped according to all profile variables evident from the p-values .249 in gender, .620 in age, .466 in grade level, .608 in frequently used gadgets, and .828 in frequently used social media.

Analysis of Variance to test the difference on the Effects of Emoji in Language and Communication

Analysis of Variance to test the difference on the Effects of Emoji in Language and Communication through Language Proficiency

The table revealed the significant difference on the perceive effects of emoji of student respondents towards language and communication in terms of language proficiency when grouped according to profile variables.

Table 8. Analysis of Variance to test the difference on the Effects of Emoji in Language and Communication through Language Proficiency

Profile		Sum of Squares	df	Mean Square	F	Sig.	Decision
Gender	Between Groups	.232	3	.077	.527	.665	Accept Not Significant
	Within Groups	11.167	76	.147			
	Total	11.399	79				
Age	Between Groups	1.377	3	.459	3.47	.020	Reject Significant
	Within Groups	10.023	76	.132			
	Total	11.399	79				
Grade Level	Between Groups	1.471	3	.490	3.75	.014	Reject Significant
	Within Groups	9.928	76	.131			
	Total	11.399	79				
Frequently Used Gadgets	Between Groups	.415	2	.207	1.45	.240	Accept Not Significant
	Within Groups	10.984	77	.143			
	Total	11.399	79				
Frequently Used Social Media	Between Groups	.832	3	.277	1.99	.122	Accept Not Significant
	Within Groups	10.567	76	.139			
	Total	11.399	79				

In the table, it revealed that there is no significant difference in perceive effects of emoji of the student-respondents towards language and communication in terms of language proficiency when grouped according to some profile variables evident from the p-values .665 in gender, .240 in frequently used gadgets, and .122 in frequently used social media. However, there is a significant difference when grouped according age and grade level evident from p-values .02 and .014, respectively.

According to Liu (2017) that old person can learn more new languages, and they may even have some advantages over young ones. For example, older person have a larger vocabulary and more life experience, which can help them to understand and use new languages more effectively. Teenagers are more prone than

younger people to converse online. Teens communicate online with their friends and family via texting, social media, and other platforms. Teens can express their emotions and tone more effectively with emojis than they can with text alone, making them a fun and expressive way to connect online (Lenhart, 2015).

Analysis of Variance to test the difference on the Effects of Emoji in Language and Communication through Verbal Usage

The table revealed the significant difference on the perceive effects of emoji of student respondents towards language and communication in terms of verbal usage when grouped according to profile variables.



Table 9. Analysis of Variance to test the difference on the Effects of Emoji in Language and Communication through Verbal Usage

Profile		Sum of Squares	df	Mean Square	F	Sig.	Decision
Gender	Between Groups	.463	3	.154	1.01	.392	Accept Not Significant
	Within Groups	11.581	76	.152			
	Total	12.044	79				
Age	Between Groups	.274	3	.091	.590	.623	Accept Not Significant
	Within Groups	11.770	76	.155			
	Total	12.044	79				
Grade Level	Between Groups	.708	3	.236	1.58 2	.201	Accept Not Significant
	Within Groups	11.336	76	.149			
	Total	12.044	79				
Frequently Used Gadgets	Between Groups	.210	2	.105	.684	.508	Accept Not Significant
	Within Groups	11.834	77	.154			
	Total	12.044	79				
Frequently Used Social Media	Between Groups	1.319	3	.440	3.11 6	.031	Reject Significant
	Within Groups	10.725	76	.141			
	Total	12.044	79				

In the table, it revealed that there is no significant difference in perceive effects of emoji of the student-respondents towards language and communication in terms of verbal usage when grouped according to profile variables evident from the p-values .392 in gender, .623 in age, .201 in grade level, and .508 in frequently used gadgets. However, frequently used social media is significant evident with the p-value of .031.

Emoji are used as a visual language to convey emotions and thoughts, based from surveys (Arafah & Hasyim, 2019). Emojis

can help to build rapport and community on social media. When people use the same emojis, it can create a sense of shared understanding and connection (Alexandra, 2022).

Perception on the Effect of Emoji Usage in Different Communication Context in terms of Formality

Table 10 revealed the perception of the student-respondents on the effect of emoji usage in communication context in terms of formality.

Table 10. Perception on the Effect of Emoji Usage in Different Communication Context in terms of Formality

Profile		Sum of Squares	df	Mean Square	F	Sig.	Decision
Gender	Between Groups	1.130	3	.377	2.663	.050	Reject Significant
	Within Groups	10.750	76	.141			
	Total	11.879	79				
Age	Between Groups	.090	3	.030	.193	.901	Accept Not Significant
	Within Groups	11.790	76	.155			
	Total	11.880	79				
Grade Level	Between Groups	.465	3	.155	1.033	.383	Accept Not Significant
	Within Groups	11.414	76	.150			
	Total	11.880	79				
Frequently Used Gadgets	Between Groups	.179	2	.090	.589	.557	Accept Not Significant
	Within Groups	11.700	77	.152			
	Total	11.879	79				
Frequently Used Social Media	Between Groups	.605	3	.202	1.359	.262	Accept Not Significant
	Within Groups	11.275	76	.148			
	Total	11.880	79				



In the table, it revealed that there is no significant difference in the perceive effects of emoji usage of the student-respondents towards communication context in terms of formality when grouped according to all profile variables evident from the p-values .901 in age, .383 in grade level, and .557 in frequently used gadgets, and .262 in frequently used social media. However, gender is significant evident with the p-value of .050.

According to Rice University (2012) Women are twice as likely as men to use emoticons in text messages. Which was emphasized more by Wirza, Nurbaeti, Hanifah, and Hanifah (2019) stating

that women tend to employ nonverbal actions, such as utilizing emojis, in order to enhance their expressiveness. Women are more inclined to utilize emoji that they see as conveying emotions in real-time textual communication, such as chatting or texting.

Perception on the Effect of Emoji Usage in Different Communication Context in terms of Politeness

Table 11 revealed the perception of the student-respondents on the effect of emoji usage in communication context in terms of politeness.

Table 11. Perception on the Effect of Emoji Usage in Different Communication Context in terms of Politeness

Profile		Sum of Squares	df	Mean Square	F	Sig.	Decision
Gender	Between Groups	2.632	3	.877	7.03	.000	Reject Significant
	Within Groups	9.480	76	.125			
	Total	12.112	79				
Age	Between Groups	.598	3	.199	1.31	.275	Accept Not Significant
	Within Groups	11.514	76	.151			
	Total	12.112	79				
Grade Level	Between Groups	.612	3	.204	1.34	.265	Accept Not Significant
	Within Groups	11.500	76	.151			
	Total	12.112	79				
Frequently Used Gadgets	Between Groups	.252	2	.126	.818	.445	Accept Not Significant
	Within Groups	11.860	77	.154			
	Total	12.112	79				
Frequently Used Social Media	Between Groups	.681	3	.227	1.51	.219	Accept Not Significant
	Within Groups	11.431	76	.150			
	Total	12.112	79				

In the table, it revealed that there is no significant difference in the perceive effects of emoji usage of the student-respondents towards communication context in terms of politeness when grouped according to all profile variables evident from the p-values .275 in age, .265 in grade level, and .445 in frequently used gadgets, and .229 in frequently used social media. However, gender is significant evident with the p-value of .000.

Digital communication lacks facial expressions and body language, increasing the likelihood of misunderstandings. Individuals report higher misinterpretation rates in texting compared to in-person or telephone conversations (Johnson, Bostwick, Anderson, Gilchrist-Petty, & Long, 2016). One reason is that women are more likely to use emojis to express their emotions (Chen et al., 2018) and emojis can be a way to convey politeness in a text-based message. Because emojis have the ability to lighten the mood and initiate interactions (Alexandra, 2022). Additionally, Jones et al. (2020) propose that women have superior facial emotion detection skills, which may account for their inclination for happy emojis that are more elaborate and nuanced and can express emotions with a higher degree of intensity.

Relationship on the Effects of Emoji between Language Proficiency and Verbal Usage

The table revealed that significant relationship of the perceive effects of emoji between language proficiency and verbal usage.

Table 12. Relationship on the Effects of Emoji between Language Proficiency and Verbal Usage

	Language Proficiency	Verbal Usage
Language Proficiency	1	
Verbal Usage	0.283936	1

The correlation coefficient between language proficiency and verbal usage is 0.283936, indicating a positive correlation. This suggests that as language proficiency increases, there is a tendency for verbal usage to also increase. In other words, individuals who are more proficient in a language are likely to use more words or engage in more verbal communication.



Relationship on the Effects of Emoji in Different Communication between Formality and Politeness

The table revealed that significant relationship of the perceive effects of emoji in the communication contexts between formality and politeness.

Table 13. Relationship on the Effects of Emoji in Different Communication between Formality and Politeness

	Formality	Politeness
Formality	1	
Politeness	0.060691	1

The correlation coefficient between formality and politeness is 0.060691, indicating a weak positive correlation. This suggests that there is a slight tendency for higher formality levels to be associated with slightly higher levels of politeness in communication. However, the correlation is weak, suggesting that the relationship between formality and politeness is not strongly influenced by each other.

CONCLUSION

- Majority of the students respondents are female, aged 13 years old and below, who frequently uses phone and FB.
- The student-respondents agreed that emoji has significant role in communication.
- The student-respondents agreed that the use of emoji has an effect in language and communication through language proficiency and verbal usage.
- The student-respondents agree that the usage of emoji has an effect in the communication context in terms of formality. Meanwhile, strongly agree in terms of politeness.
- There is no significant difference in perception of the student-respondents towards the roles of emoji in the communication when grouped according to all profile variables.
- There is a significant difference in perceive effects of emoji of the student-respondents towards language and communication in terms language proficiency when grouped to age and grade level. Moreover, there is also a significant difference in terms of verbal usage when grouped according to frequently used social media profile.
- There is a significant difference in the perceive effects of emoji usage of the student-respondents towards communication context in terms of formality and politeness when grouped gender.
- There is a positive correlation between language proficiency and verbal usage.
- There is a weak positive correlation between formality and politeness.

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RUSSIAN LANGUAGE TEACHING METHODOLOGY: CURRENT PERSPECTIVES AND FUTURE DIRECTIONS

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ABSTRACT

This academic article provides an overview of contemporary perspectives on Russian language teaching methodology. The article explores the historical development of Russian language teaching methodologies and highlights key shifts from traditional grammar-focused approaches to communicative and learner-centered methodologies. It examines prominent approaches such as Communicative Language Teaching (CLT), Task-Based Instruction (TBI), Content-Based Instruction (CBI), and technology-enhanced instruction. The article discusses the benefits and challenges associated with these approaches and emphasizes the importance of cultural understanding and the integration of technology in Russian language instruction. Furthermore, it suggests future directions for research and practice, including the exploration of virtual reality, gamification, and adaptive learning technologies, as well as addressing the needs of diverse learner populations. Overall, this article aims to contribute to the ongoing improvement of Russian language teaching practices and the enhancement of learners' language acquisition and proficiency.

KEY WORDS: Russian language teaching, methodology, communicative language teaching, task-based instruction, content-based instruction, technology-enhanced instruction, historical development, learner-centered approaches, challenges, integration of technology, future directions.

1. INTRODUCTION

The field of Russian language teaching methodology has undergone significant transformations over time, reflecting advancements in language acquisition theories and pedagogical approaches. Russian, as a complex and rich language, requires effective teaching methods that cater to the diverse needs and goals of learners. This introduction provides an overview of the importance of Russian language teaching methodology, highlights the historical development of teaching approaches, and sets the stage for discussing contemporary perspectives and future directions.

Teaching Russian as a foreign language holds great significance due to the global demand for language proficiency and the growing cultural and economic ties with Russian-speaking countries. Effective methodology plays a crucial role in facilitating language acquisition, fostering communicative competence, and promoting cultural understanding among learners.

The historical development of Russian language teaching methods provides valuable insights into the evolution of instructional approaches. Traditional methods, such as the Grammar-Translation Method, focused on explicit grammar instruction and translation exercises. However, these methods often neglected the development of oral communication skills and failed to engage learners in meaningful language use.

With the advent of communicative approaches in the mid-20th century, there was a paradigm shift in Russian language teaching. Communicative Language Teaching (CLT) emerged as a prominent methodology, emphasizing the importance of

authentic communication, interactive activities, and task-based learning. CLT aimed to create real-life language contexts, enabling learners to use Russian for practical purposes.

Alongside CLT, other learner-centered approaches gained recognition in Russian language teaching. Task-Based Instruction (TBI) emphasized the completion of meaningful tasks to promote language acquisition and engagement. Content-Based Instruction (CBI) integrated language learning with subject matter content, allowing learners to develop language skills while exploring various interdisciplinary topics.

The integration of technology has revolutionized Russian language teaching. Digital tools, multimedia resources, and online platforms provide opportunities for interactive and immersive learning experiences. Technology-enhanced instruction facilitates the development of all language skills, enhances cultural understanding, and allows for personalized learning pathways.

Looking ahead, future directions in Russian language teaching methodology lie in exploring innovative approaches and addressing specific challenges. Virtual reality, gamification, and adaptive learning technologies have the potential to revolutionize language instruction by creating immersive and engaging learning environments. Additionally, addressing the needs of diverse learner populations, including heritage speakers and learners with different linguistic backgrounds, is crucial for inclusive and effective instruction.

In conclusion, Russian language teaching methodology has evolved from traditional grammar-focused methods to



contemporary approaches that prioritize authentic communication, learner engagement, and technology integration. The historical development of teaching methods has paved the way for learner-centered approaches, such as CLT, TBI, and CBI, which promote language acquisition and cultural understanding. The integration of technology has opened new possibilities for interactive and personalized learning experiences. By embracing innovation and addressing challenges, Russian language educators can enhance language acquisition outcomes and meet the diverse needs of learners in an interconnected world.

2. HISTORICAL DEVELOPMENT OF RUSSIAN LANGUAGE TEACHING METHODOLOGIES

The historical development of Russian language teaching methodologies has been shaped by various educational and linguistic influences over time. This section provides an overview of the key stages and approaches that have influenced the teaching of the Russian language.

2.1. Grammar-Translation Method

The Grammar-Translation Method dominated Russian language instruction in the 19th and early 20th centuries. This approach primarily focused on the formal study of grammar rules and the translation of literary texts. The main objective was to develop reading and writing skills, with little emphasis on oral communication or practical language use.

2.2. Direct Method

In the early 20th century, the Direct Method gained popularity as a response to the limitations of the Grammar-Translation Method. Advocates of the Direct Method aimed to create a natural language learning environment by emphasizing oral communication and immersion in the target language. Russian language learners were exposed to authentic language use from the outset, using visual aids, gestures, and demonstrations to facilitate understanding.

2.3. Audiolingual Method

In the mid-20th century, the Audiolingual Method became prominent in Russian language teaching. This approach emphasized the repetitive practice of dialogues and patterns to develop listening and speaking skills. The Audiolingual Method relied heavily on oral drills, memorization, and pattern recognition, drawing on structural linguistics to teach the language.

2.4. Communicative Language Teaching (CLT)

In the 1970s, the field of Russian language teaching witnessed a shift towards communicative approaches, influenced by the broader movement in language education. CLT aimed to develop learners' communicative competence by emphasizing meaningful and authentic language use in real-life situations. It moved away from the exclusive focus on grammar and translation, encouraging learners to engage in interactive tasks, role-plays, and communicative activities.

2.5. Task-Based Instruction (TBI)

Task-Based Instruction gained prominence in the late 20th century as a response to the limitations of traditional approaches. TBI focuses on learners completing real-world tasks using the target language. In Russian language teaching, learners engage in activities such as planning a trip, conducting interviews, or solving problems, which require the use of language in meaningful contexts. TBI promotes communication, problem-solving, and critical thinking skills.

2.6. Content-Based Instruction (CBI)

Content-Based Instruction integrates language learning with subject-specific content, such as history, literature, or science. This approach aims to develop both language proficiency and knowledge in a particular disciplinary area. In Russian language teaching, learners explore Russian literature, culture, or history while developing language skills. CBI fosters interdisciplinary learning and provides learners with authentic language use in meaningful contexts.

2.7. Technology-Enhanced Instruction

With the advent of technology, Russian language teaching has embraced digital resources and online platforms. Multimedia materials, language learning applications, virtual classrooms, and language exchange platforms have provided learners with interactive and immersive language learning experiences. Technology-enhanced instruction allows for individualized learning pathways, authentic materials, and opportunities for real-time communication with native speakers.

The historical development of Russian language teaching methodologies reflects a progression from grammar-focused methods to approaches that prioritize authentic communication, learner engagement, and cultural understanding. The evolution of methodologies has been influenced by factors such as linguistic theories, educational trends, and technological advancements. The current landscape of Russian language teaching methodologies incorporates learner-centered approaches, task-based instruction, content-based instruction, and the integration of technology, enabling learners to develop proficiency in the Russian language while engaging in meaningful and authentic language use.

3. CONTEMPORARY APPROACHES TO TEACHING RUSSIAN

Contemporary approaches to teaching Russian have evolved to address the changing needs and goals of learners in the modern world. These approaches prioritize communicative competence, cultural understanding, and learner engagement. In this section, we will explore some of the prominent contemporary approaches to teaching Russian, including Communicative Language Teaching (CLT), Task-Based Instruction (TBI), Content-Based Instruction (CBI), and technology-enhanced instruction.

3.1. Communicative Language Teaching (CLT)

CLT is a widely recognized approach that emphasizes the development of communicative competence. It focuses on



providing learners with opportunities to use Russian in meaningful and authentic contexts. CLT encourages interactive activities, role-plays, and real-life simulations to promote oral communication skills. Learners engage in communicative tasks, such as discussions, debates, and collaborative projects, to enhance their ability to express themselves effectively in Russian. CLT also emphasizes the integration of the four language skills (listening, speaking, reading, and writing) and cultural understanding within language instruction.

3.2. Task-Based Instruction (TBI)

TBI places an emphasis on learning through the completion of meaningful tasks. Learners are presented with tasks that require them to use Russian to accomplish specific goals. These tasks can be real-life situations or language-focused activities. TBI encourages learners to engage in problem-solving, negotiation of meaning, and collaboration. By focusing on tasks, learners develop their language skills while also acquiring the necessary strategies for effective communication. TBI promotes learner autonomy and motivation by providing learners with a sense of purpose and relevance in their language learning.

3.3. Content-Based Instruction (CBI)

CBI integrates language learning with subject matter content. It involves teaching Russian through the exploration of interdisciplinary topics, such as history, literature, culture, or current events. CBI aims to develop both language proficiency and content knowledge simultaneously. Learners engage with authentic materials, such as texts, videos, and audio recordings, to acquire language skills in context. By connecting language learning with meaningful content, CBI enhances learners' language skills while deepening their understanding of Russian culture and society.

3.4. Technology-Enhanced Instruction

The integration of technology has revolutionized Russian language teaching. Digital tools, multimedia resources, and online platforms provide opportunities for interactive and immersive learning experiences. Online language learning platforms offer a wide range of resources, including interactive exercises, virtual flashcards, and language practice activities. Language learning apps and software provide opportunities for self-paced learning and personalized instruction. Technology-enhanced instruction also allows for authentic cultural immersion through virtual tours, online communities, and videoconferencing with native speakers.

These contemporary approaches to teaching Russian prioritize learner engagement, authentic language use, and the integration of language skills. They emphasize the development of communicative competence and cultural understanding among learners. By incorporating technology, educators can enhance the learning experience and provide learners with interactive and personalized instruction. These approaches offer diverse strategies for meeting the evolving needs of learners and promoting effective language acquisition in the context of Russian language teaching.

4. BENEFITS AND CHALLENGES

Benefits

1. Enhanced Communicative Competence: Contemporary approaches to teaching Russian, such as Communicative Language Teaching (CLT), Task-Based Instruction (TBI), and Content-Based Instruction (CBI), prioritize meaningful communication in real-life contexts. These approaches enable learners to develop their speaking, listening, reading, and writing skills, leading to enhanced communicative competence in the Russian language.

2. Authentic Language Use: By focusing on authentic language use, contemporary approaches provide learners with exposure to real-life situations and materials. Learners engage in tasks and activities that simulate real-world interactions, allowing them to develop their language skills in a practical and meaningful way.

3. Cultural Understanding: Contemporary approaches to teaching Russian emphasize the integration of culture into language instruction. Learners explore Russian literature, history, and traditions, fostering a deeper understanding of the cultural context in which the language is used. This cultural component enhances learners' intercultural competence and enables them to communicate effectively with Russian speakers in various contexts.

4. Learner Engagement: The learner-centered nature of contemporary approaches promotes learner engagement and motivation. By incorporating interactive activities, group work, and opportunities for personalization, these methodologies make language learning more enjoyable and relevant to learners' interests and needs.

5. Integration of Technology: Technology-enhanced instruction offers numerous benefits in teaching Russian. Online resources, multimedia materials, language learning applications, and virtual classrooms provide learners with interactive and immersive learning experiences. Technology facilitates independent learning, immediate feedback, and access to authentic materials, enhancing learners' language acquisition process.

Challenges

1. Complex Grammar Structures: Russian is known for its complex grammar system, including cases, verb aspect, and complex sentence structures. Teaching and acquiring these structures can be challenging for both teachers and learners. It requires careful explanation, practice, and exposure to reinforce the understanding and use of grammatical rules.

2. Pronunciation Difficulties: Russian phonetics can be challenging for non-native speakers due to the presence of unfamiliar sounds and pronunciation patterns. Teaching and acquiring accurate pronunciation require focused attention, explicit instruction, and plenty of listening and speaking practice.

3. Limited Availability of Resources: Compared to widely taught languages, the availability of quality instructional



materials and resources specific to teaching Russian may be limited. Teachers may need to invest time and effort in developing or adapting materials to suit their teaching objectives and learners' needs.

4. **Diverse Learner Backgrounds:** Russian language classrooms often include learners from diverse linguistic and cultural backgrounds. Addressing the needs and proficiency levels of learners with different language backgrounds and learning styles can pose a challenge for teachers. Differentiating instruction and providing appropriate support to meet individual learners' needs require careful planning and adaptation.

5. **Assessment of Proficiency:** Assessing learners' proficiency in Russian can be complex. Traditional assessment methods focused on grammar and vocabulary may not effectively capture learners' communicative competence. Teachers need to employ a variety of assessment strategies, including performance-based tasks and oral proficiency interviews, to evaluate learners' language skills accurately.

It is important for Russian language educators to be aware of these benefits and challenges associated with contemporary approaches to teaching Russian. By leveraging the advantages and addressing the challenges, teachers can create effective and engaging learning environments that facilitate learners' acquisition of the Russian language.

5. INTEGRATION OF TECHNOLOGY IN RUSSIAN LANGUAGE INSTRUCTION

The integration of technology in Russian language instruction has significantly transformed the teaching and learning experience. Technology offers a wide range of tools, resources, and platforms that enhance language acquisition, provide authentic materials, and facilitate communication and collaboration. Here are some ways in which technology is integrated into Russian language instruction:

5.1. **Online Language Learning Platforms:** Numerous online platforms and websites offer Russian language courses, interactive exercises, and multimedia resources. Learners can access these platforms anytime, anywhere, allowing for self-paced learning and individualized instruction. These platforms often provide a structured curriculum, progress tracking, and immediate feedback on learners' performance.

5.2. **Language Learning Applications:** Mobile applications dedicated to Russian language learning provide learners with interactive exercises, vocabulary drills, and pronunciation practice. These apps often include features such as flashcards, quizzes, and speech recognition technology to assist learners in improving their language skills. Learners can practice Russian on their smartphones or tablets, making language learning more accessible and convenient.

5.3. **Multimedia Materials:** Technology enables access to authentic multimedia materials, such as videos, audio recordings, and podcasts, which expose learners to real-life

language use and cultural contexts. Russian learners can watch movies, listen to music, and access news broadcasts or podcasts in Russian, improving their listening comprehension and cultural understanding.

5.4. **Virtual Classrooms and Video Conferencing:** Virtual classrooms and video conferencing tools allow for synchronous learning and real-time interaction between learners and instructors. Russian language learners can participate in online discussions, group activities, and live sessions with native speakers or other learners. These platforms facilitate communication practice, provide opportunities for feedback, and foster a sense of community among learners.

5.5. **Language Exchange Platforms:** Online language exchange platforms connect Russian learners with native speakers for language practice and cultural exchange. Learners can engage in language exchanges via video calls, chat platforms, or email, allowing for authentic communication and cultural immersion. These platforms offer opportunities for learners to practice their Russian skills and receive feedback from native speakers.

5.6. **Digital Language Resources:** Online dictionaries, grammar references, and language learning websites provide learners with instant access to language resources. Learners can quickly look up word meanings, verb conjugations, and grammar explanations, enhancing their independent language learning. Digital resources often include audio pronunciation guides and examples to support learners' understanding and usage of Russian vocabulary and grammar.

5.7. **Language Learning Games and Simulations:** Language learning games and simulations make the learning process engaging and interactive. These digital tools offer immersive experiences where learners can practice their Russian skills in a fun and gamified environment. Games and simulations provide opportunities for vocabulary acquisition, grammar practice, and cultural exploration.

While the integration of technology in Russian language instruction offers numerous benefits, it is essential to ensure appropriate and effective use. Teachers should select and integrate technology tools that align with their instructional goals, provide guidance and support to learners in using these tools, and ensure a balance between technology-based activities and face-to-face interactions. Additionally, the availability of technology and internet access should be considered, as some learners may face limitations in accessing these resources.

6. FUTURE DIRECTIONS FOR RESEARCH AND PRACTICE

Future directions for research and practice in Russian language instruction can focus on several key areas to further enhance teaching methodologies, address emerging needs, and leverage technological advancements. Here are some potential areas for future exploration:



6.1. Technology-Enhanced Language Learning: Continued research can explore the effectiveness of specific technology tools, applications, and online platforms in Russian language instruction. Investigating the impact of virtual reality, augmented reality, artificial intelligence, and natural language processing on language acquisition and proficiency development can provide valuable insights for educators and learners.

6.2. Blended and Online Learning: Blended learning, which combines face-to-face instruction with online components, has gained popularity in language education. Future research can investigate the optimal blend of online and in-person instruction in Russian language classrooms, exploring how to best leverage the benefits of both approaches. Additionally, the effectiveness of fully online Russian language courses and programs can be examined, including their impact on learner motivation, engagement, and proficiency outcomes.

6.3. Task-Based and Content-Based Instruction: Further research can delve into the implementation and effectiveness of task-based instruction (TBI) and content-based instruction (CBI) in Russian language classrooms. Exploring how to design and sequence tasks and content to promote language acquisition, cultural understanding, and learner engagement will provide insights into effective instructional approaches. Additionally, investigating the integration of authentic materials, such as literature, films, and current events, into language instruction can enhance learners' language proficiency and cultural competence.

6.4. Intercultural Competence and Global Communication: With increasing globalization and intercultural interactions, research can focus on developing learners' intercultural competence in the context of Russian language instruction. Investigating strategies and instructional approaches to foster learners' ability to communicate effectively and respectfully across cultures can enhance their language skills and cultural understanding.

6.5. Assessment and Proficiency Standards: Research can explore the development of valid and reliable assessment tools for measuring Russian language proficiency, considering the unique features of the language. Investigating the alignment between proficiency standards, curricula, and assessment practices can ensure that assessment accurately reflects learners' language abilities and informs instructional practices.

6.6. Learner Autonomy and Individualization: Future research can explore ways to foster learner autonomy and individualization in Russian language instruction. Investigating strategies for promoting learner agency, self-assessment, goal-setting, and personalized learning paths can enhance learners' motivation, engagement, and progress.

6.7. Heritage Language Learners: As the number of heritage Russian language learners continues to grow, research can focus on effective instructional approaches and materials tailored to their specific needs. Understanding the unique

challenges and strengths of heritage learners and developing strategies to support their language development can contribute to more inclusive and effective Russian language instruction.

6.8. Teacher Training and Professional Development: Research can explore effective models for pre-service and in-service teacher training programs in Russian language instruction. Investigating best practices for preparing teachers to effectively integrate contemporary approaches, technology tools, and intercultural components into their instruction can enhance the quality of Russian language education.

By addressing these areas of research, Russian language educators can further enhance instructional practices, develop innovative approaches, and better meet the needs of learners in the evolving global landscape.

7. CONCLUSION

In conclusion, contemporary approaches to teaching Russian prioritize communicative competence, cultural understanding, and learner engagement. These approaches, such as Communicative Language Teaching (CLT), Task-Based Instruction (TBI), Content-Based Instruction (CBI), and technology-enhanced instruction, offer effective strategies for language acquisition in the context of Russian instruction.

The integration of technology in Russian language instruction has revolutionized the teaching and learning experience. Online platforms, language learning applications, multimedia materials, virtual classrooms, and language exchange platforms provide learners with access to authentic resources, interactive activities, and opportunities for communication and collaboration. These technological advancements enhance learner autonomy, facilitate cultural immersion, and cater to the diverse needs and preferences of learners.

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FIRST LANGUAGE INTERFERENCE IN LEARNING A FOREIGN LANGUAGE

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ABSTRACT

This article explores the complex issue of interlanguage interference in language learning. The analysis looks closely at how interference occurs and highlights the various factors that contribute to its presence. Interference is essentially the interaction of different language systems in the context of bilingualism. It can happen when languages intersect or during the development of a non-native language, leading to deviations from the norm and disruptions in the second language influenced by the native language. Additionally, the article summarizes key sources of interference identified by researchers, contributing to a better understanding of this intricate linguistic phenomenon. Here, a number of productive methods are suggested to prevent it.

KEY WORDS: *interference phenomenon, bilingualism, comparative method, linguistic description method, first language, foreign language*

INTRODUCTION

Language interference refers to the influence of one language on another during the process of language acquisition or bilingualism. It occurs when the structures, vocabulary, or pronunciation patterns of one language are transferred to another. Interference can have negative effects on language learning, and even excessive interference may hinder language production and comprehension. This problem makes linguists explore the phenomenon of interference in language and discuss effective methods to prevent it.

METHODS

This article employs comparative and linguistic description methods to analyze interference phenomenon for mastering a foreign language when Uzbek learners are learning English. A close reading of selected relevant articles from different sources helped to identify this linguistic phenomenon and find effective approaches for its negative prevention to the language. For this reason, the differences and similarities between Uzbek and English languages are compared.

LIBRARY REVIEW

Linguist Baudouin de Courtenay was one of the first scholars to discuss the interaction of languages, although the term "interference" was not commonly used at that time. He described this interaction not only in terms of individuals acquiring language units but also the convergence of languages as a whole. After the release of U. Weinreich's «Languages in contact» the term of «linguistic interference» obtained wide scientific distribution. According to the opinion of U. Weinreich, the basis of formation of interference is a language contact. U. Weinreich defines the interference as the disrupt of linguistic norms which

occur during the speech of bilingual person as a result of acquisition of foreign language. [9,16] Another linguist, T.S. Baliashvili, also believes that the phenomenon of language interference occurs only as a result of the contact conditions of the two language systems [7]. Also, as a result of the analysis of scientific research and studies of L.V. Shcherba, E.M. Vereshchagin, V.Yu. Rozentsveyg, A.A. Reformat'skiy, V.A. Avrorin, Yu.D. Desheriev, V.A. Vinogradov, V.V. Alimov and many other scientists on this concept it can be concluded that bilingualism and language contact conditions are necessary for an interference phenomenon to occur. [5, 56]

DISCUSSION

The interference phenomenon in language refers to the influence or impact of one language on another when individuals are bilingual or multilingual and use multiple languages in their communication. It occurs when the features, structures, or patterns of one language are transferred or affect the use of another language. This interference can manifest in various ways, including pronunciation, vocabulary, grammar, syntax, and discourse patterns. It can result in the adoption of linguistic elements from one language into another and may lead to changes in the way a language is spoken or used by bilingual or multilingual individuals. Language interference can occur at different levels, ranging from individual lexical items or grammatical structures to broader language use and sociolinguistic patterns.

The interference phenomenon in pronunciation occurs when the pronunciation patterns of one language influence the pronunciation of another language, often observed in bilingual individuals. For Uzbek learners of English, there are some common interference patterns that may occur:



1. **Vowel Sounds:** Uzbek learners may struggle with English vowel sounds that do not exist in Uzbek, such as the short “i” sound (/ɪ/) in words like “sit” or the “o” sound (/ɒ/) in words like “hot”. They may substitute these sounds with similar Uzbek vowels. [6, 4]
2. **Consonant Sounds:** Some consonant sounds in English may pose challenges for Uzbek learners. For example, the “th” sounds (/θ/ and /ð/) in words like “think” and “that” do not exist in Uzbek, so learners might use them with sounds like /t/ and /d/ incorrectly.
3. **Word Stress:** English word stress often falls on different syllables, however, this is placed at the end of most words in Uzbek language. So, Uzbek learners may apply Uzbek stress patterns to English words, resulting in incorrect placement of stress. For instance, they may stress the first syllable in words like “photograph” instead of the second syllable as in English. Also, English phrasal verbs often have stress placed on the particle (like “give up” or “look after”). Uzbek learners might stress the main verb, affecting comprehension or sounding unnatural in conversation. English often stresses the first word in compound nouns, while Uzbek may not have this pattern. For instance, “ice cream” might be pronounced with equal stress on both words by Uzbek learners, whereas in English, the stress is on “ice”.
4. **Intonation Patterns:** Uzbek learners may carry over the intonation patterns of Uzbek into English. This can affect the rise and fall of pitch patterns and the placement of stress within sentences, leading to a distinct Uzbek accent in their English pronunciation. For instance: “Qayerga ketyapsan?” – here the word “qayerga” takes word stress, but its translation in English like “Where are you going?” is quite different, as the stress takes place on the word “going”, not “where”.

Vocabulary interference for Uzbek learners learning English might occur due to differences in word roots, sentence structure, and pronunciation between the two languages. However, both languages do share some loanwords due to historical and cultural interactions, such as “telefon” (telephone) or “restoran” (restaurant). And this causes some mistakes using these words in writing and speaking, because their pronunciation and spelling are different in both languages. Also, there might be words that look similar in both languages but have different meanings and they are called “False friends”. For instance, “actual” in English means “real or true,” while in Uzbek, “actual” refers to something that’s “up-to-date” or “current”. Another example might be the word “magazine”, it has the meaning of “journal” in English, whereas, it means “shopping place” in the Uzbek language.

Grammar interference occurs when the rules and structure of one language influence the way someone speaks or writes another language. For instance, if someone learning English, which doesn’t typically use gendered nouns, tries to apply gender rules from their native language to English, it can lead to errors like saying “She is a table” instead of “It is a table.” This happens due

to the influence of their native language’s grammar on their English expression. For Uzbek learners of English, grammar interference might manifest in various ways:

1. **Verb Tense Usage:** In Uzbek, the past tense is often formed by adding a suffix to the verb. This could lead to errors like saying “Yesterday I go to the store” instead of “Yesterday I went to the store” in English.
2. **Articles (a, an, the):** The study of interference of articles plays a great role in the study of grammatical interference in the speech of students, as the assimilation of articles in the English language usually presents great difficulties for students. The students often omit the Indefinite and Definite articles, for example, in word combinations and sentences like the most interesting, the greatest exporter. [7, 293] Uzbek doesn’t have articles like English does, so an Uzbek learner might struggle with when to use “a,” “an,” or “the” correctly in English sentences.
3. **Pluralization:** In Uzbek, plurals are often formed through context rather than adding specific suffixes. This might result in mistakes like saying “I have three cat” instead of “I have three cats” in English.
4. **Word Order:** Uzbek has a more flexible word order compared to English. This might cause issues with arranging words correctly in English sentences, such as placing adjectives before or after nouns incorrectly.
5. **Subject-Verb Agreement:** In Uzbek, verb conjugations are less complex than in English. An Uzbek learner might struggle with subject-verb agreement, leading to errors like “He walk” instead of “He walks.”

Even though interference phenomenon may hinder a successful process of language learning, several effective methods are available to mitigate the negative effects of this phenomenon and help to ensure a productive learning environment.

1. **Immersion and Exposure:** Engaging in immersive experiences where the language is spoken authentically. This exposure helps in understanding nuances and natural usage, reducing reliance on direct translation from the native language. This way can be applied in a classroom in which, a teacher should only use a target language and encourage his students to use it. As in most cases, there is no other place for students to communicate in a foreign language.
2. **Contextual Learning:** Emphasizing learning in context rather than through direct translation. For example, using real-life situations, dialogues, and scenarios to understand how phrases and expressions are used in context. Here, learners can enhance their language proficiency by watching movies, news and listening to broadcasts in which participants should be native English.
3. **Comparative Analysis:** Highlighting the differences and similarities between the native language and the target language. This analytical approach can raise awareness of potential interference and enable learners to navigate between the two effectively.



4. Feedback and Correction: Regular feedback and correction from teachers or language partners can help identify and rectify instances of interference. This aids learners in making adjustments and improvements.

CONCLUSION

Interference in language learning is a common phenomenon that can both facilitate and hinder language acquisition. While some linguistic interference can contribute to language creativity and code-switching, excessive interference can impede language production, comprehension, and cultural appropriateness. By implementing effective methods to prevent interference, such as increased exposure, targeted study, active learning techniques, error correction, and strategic language learning, learners can enhance their language proficiency and minimize the negative effects of interference.

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UNDERSTANDING STRESSORS, COPING STRATEGIES, AND THE ROLE OF SUPPORT SYSTEMS IN THE PSYCHOLOGICAL WELLBEING OF ADOLESCENTS IN THE CONTEXT OF COMPETITIVE EXAMS: A COMPREHENSIVE REVIEW

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ABSTRACT

This comprehensive review aims to understand stressors and explore coping strategies for the mental health and well-being of adolescents preparing for competitive entrance exams in India, such as JEE and NEET. Psychological disorders are prevalent among adolescent students, especially those facing the challenges of highly competitive exams. Intense stress can lead to mental stress and subsequent depression, resulting from the difficulty in managing performance pressure, meeting expectations, and achieving goals. Establishing a balanced study routine with regular breaks, practicing relaxation techniques, and ensuring adequate sleep are crucial for helping students cope with academic stress. Support systems, including friends, family, and teachers, play a vital role by providing emotional support, encouragement, and a sense of security during challenging times.

In this comprehensive review, the researcher has analyzed and incorporated insights from various research studies to help understand the complex nature of academic stress and performance expectations.

KEYWORDS: *Competitive exams, stressors, coping strategies, support systems.*

1. INTRODUCTION

Admissions to prestigious institutions like IITs, NITs, and government medical colleges in India is highly competitive. Admissions to NITs and IITs are based on the rank secured in the Joint Entrance Examination (JEE), while for medical colleges, the rank in the National Eligibility cum Entrance Test (NEET) is the criterion. Approximately 1.2 million students appear for JEE, competing for around 17,500 seats in IITs, 24,000 seats in NITs, and 7,500 seats in IIITs.

NEET, with nearly 2.1 million students participating each year, is conducted for admissions to about 106,000 MBBS seats in 681 medical colleges, split between government and private institutions with 55,000 and 51,000 seats, respectively. The success rate is only 7-8%, highlighting the rigorous nature of these exams and the resulting in stress for students. Exam anxiety is fueled by high stakes, unrealistic expectations, fear of failure, and pressure from parents and peers. However, stress and exam anxiety can be managed through effective study techniques, time management, nutritious a diet, regular sleep pattern, healthy lifestyle, and fostering confidence and faith in one's preparation.

Background: The psychological disorders like depression, anxiety and stress are prevalent among adolescents in India, particularly those undergoing the intense pressure of preparing for highly competitive entrance exams such as NEET and JEE. With millions of students competing for a limited number of seats in government medical colleges and in prestigious and highly exclusive technical institutions like IITs and NITs, the competition has reached unprecedented levels. The anxiety, stress and depression associated with these exams have become substantial, leading to adverse effects on the mental health and psychological well-being of students.

As the success rates in exams like JEE and NEET remain low, hovering around 7-8%, the implications of failure are profound. The high stakes, coupled with unrealistic expectations, parental pressure, and fear of not securing a coveted spot, contribute to intensified exam anxiety and other mental disorders. This study aims to comprehensively examine the stressors faced by adolescents during exam preparation and explore effective coping strategies. Understanding these factors is crucial in developing



interventions to support the mental health and well-being of students navigating the challenging landscape of competitive entrance exams in India.

2. REVIEW OF LITERATURE

Latha KS and Hanumanth Reddy (2006) [1] studied Patterns of Stress, Coping Styles and Social Support among Adolescents. Out of the 100 pre university students of age 16-19 years participated, 50 were girls and 50 were boys. Students from nuclear families were 94%. Female students had greater stress related to college attendance, uncertainty about the future. Getting up early in the morning was stressful to majority of the students. Parents perceive this as laziness and leads to conflicts. The competition, parental expectations, desire of admissions to professional courses, pressure to study, long college hours, financial constraints are the other most commonly reported stressors

Ibrahim Yildirim, Tuncay Ergene and Kerim Munir (2007) [2] conducted a study on high rates of depressive symptoms among senior high school students preparing for national university entrance examination in Turkey Out of the 984 students preparing for university entrance examination participated in the study, 58.2% were boys and 49.8% were girls. The mean age of participated adolescents was 18.4 ± 2.3 years. Depressive symptoms were found in 45.1% by the Beck Depression Inventory (BDI). 49.5% of the females and 40.6% of the males were showing symptoms of depression.

Mine Kaya, Metin Genc, Burhanettin Kaya and Erkan Pehlivan (2007) [3] studied Prevalence of Depressive Symptoms, Ways of Coping, and Related Factors Among Medical School and Health Services Higher Education Students (HSHEs). Depressive symptoms were found more prevalent in HSHE Students compared to Medical Faculty (MF) students. No significant relationship can be identified between age and depressive symptomatology in both the groups. The difference between depressive symptoms and education level of fathers was not significant. Depression and anxiety disorders in school going adolescents in an urban area of south India. There was no remarkable difference according to family type and place of birth. There was no correlation between family income and coping styles among the MF students.

Ersin Uskun, Ahmet Nesimi Kisioglu and Mustafa Ozturk (2008) [4] studied Stress and its effect on depression and anxiety among under graduates. This study evaluated the life stress and mental health of students in a university and compared adolescents with young adults. This study suggests that social dissatisfaction, relationships with opposite sex, exam fear, worries about career choice and future, accommodation problems are the sources of stress and are consistent predictors of anxiety and depression levels. provided useful information for early management of psychiatric disorders present in the community and prevent their development into chronic disorders.

The studies conducted by A. Aykut Ceyhan, Esra Ceyhan and Yildis Kurtyilmaz titled Investigation of University Students' Depression (2009) [5]. The study was conducted on 440 volunteer university students attending various programs. Out of this 72% were females and 28% were male students. Researchers found that 40.22% of the participants had no depression, 29.55% were mildly depressed, 20.46% were moderately depressed and 9.77% were severely depressed. The participants who were dissatisfied with their body image were more depressed compared to those who are satisfied with their body image. Those who were poor in academics demonstrated significantly more depressive symptoms compared to those who had better academic achievements. No significant difference in depression levels were observed in participants due to gender and residence location.

Arzu Ozyurek (2013) [6] conducted An Examination of Adolescents' Methods of Coping with Stress on 1700 students aged 15-18 years studying in secondary schools in Karabuk province of Turkey. A positive relationship between the tendency to stress and coping with stress were found. The researcher observed the variables like gender, age, number of siblings and educational status of parents are influential in coping with stress. Developing Problem solving skills, providing social support, counselling sessions and time management trainings could be effective in coping with stress.

Samata Srivastava, J P Singh and Om Prakash Srivastava (2014) [7] conducted a study on 200 students in the age range of 16-19 years from rural and urban population residing in the eastern district of Uttar Pradesh. The male students are reported to have more stress than females in both urban and rural settings. Female participants were found to be more likely to utilize coping strategies compared to their male counterparts. Urban adolescents were found to be more stressful and use more coping strategies compared to rural adolescents.

Lakyntiew Pariat, Angelyne Rynjah, Joplin, M G Kharjana (2014) [8] conducted a study on Stress Levels of College Students: Inter relationship between Stressors and Coping Strategies. Participants in this study were 537 students enrolled in a reputed college in Shillong City. Out of the female participants, 23.5% and of the male participants 21.9% had 5 or more siblings. Those who belong to nuclear family were 57.5%. of all the academic stressors 52.7% family expectations and 32.4% were expectations of teachers. Those who had problems in getting along with family members were 3.5% in males 1.5% in females. The students who didn't have any friends were 1.3% in males and 1.7% in females. Only 11.95 males and 6.9% females were having high stress, 15% males and 23.9% females were experiencing very low stress. Positive coping strategies like prayer, sleep and meditation, pursuing hobbies and interests was found to be helpful to combat academic stress.

A cross-sectional study was conducted by Noor Mahir Ali, et al. (2019) [9] on Perceived Academic and Psychological Among Adolescents in United Arab Emirates: Role of Gender, Age,



Depression and High Expectation of Parents using Perceived Stress Scale-14 (PSS-14) and Educational Stress Scale (ESS) for Adolescents. A total of 914 students in the age group 14-16 years participated in the study. The academic level was considered as good by 45% of the respondents, parents of 84% had high expectations. Three out of every four respondents thought that they can meet the expectations of their parents. The PSS was found to be moderate in 76% of the respondents and high in 20%. Statistically significant correlation was found between total PSS-14 scores and age ($p < 0.0004$), gender ($p < 0.0001$), and grade ($p < 0.0001$).

A study was conducted by Mishra SK, Yadav AK, et al. (2020) [10] on Stress and Coping among students preparing for Medical Entrance Examinations. A total of 261 students participated in the study, 57.1% were males and the rest were females, with an average age of 18.63 ± 0.83 years. Over all 63.8% of the participants were suffering from depression, 82% from anxiety and 51.3% from stress. Extremely severe symptoms of depression were found in 8%, severe anxiety in 23% and 1.9% had severe stress. No socio-demographic factors are found associated with depression. Students from a public school were found to be more anxious and those who had chosen to become medical professionals out of interest were less stressed.

K Premkumar, S Sarojini, et al. (2022) [11] studied prevalence of Depression and Anxiety among students preparing for National Eligibility cum Entrance Test (NEET) Chennai, India. The study was conducted on 250 students of which 41.2% were females and 58.8% were males, 45% had attempted NEET once and 38% twice. The number of previous attempts had a significant association with the severity of anxiety symptoms. Anxiety symptoms were seen in 100% and prevalence of depressive symptoms in 59.2% of the participants. Severe depression symptoms were observed in those with more than two previous attempts and those awaiting their first NEET results.

A study conducted by Raveena Saharan (2023) [12] on What's killing students in Kota. An alarming number of 119 students who were studying in various coaching institutes in Kota committed suicide in the last decade reveals that everything is not going well at Kota. The researcher found that the suicides are due to the fear of failure and undue pressure from family and peers. The intense competition and performance pressure lead to anxiety and stress. The lack of parental support and absence of genuine friendship caused stress and feelings of isolation. The intense competition and isolated environment in coaching institutes rises the risk of developing serious psychological issues including depression, anxiety and stress. The levels of stress experienced varied significantly from the transition period to young adulthood.

This comprehensive review explores how adolescents handle the stress of competitive exams. By looking at different studies from various places and cultures, it shows that stress affects these adolescents universally. Different types of stressors, like pressure from school, what society expects, and family influences, shows

exert a considerable amount of pressure on a young mind. Many students getting ready for exams deal with feeling depression, anxiety and confusion. This review emphasizes how important it is to understand these problems and suggest suitable interventions.

Importantly, the review shows that adolescents need effective and positive approach to deal with tough situations. Whether it's having a good study routine, getting support from friends and family, or believing in themselves, engaging in effective ways to handle stress is crucial. Having people around who care, like friends, family, and teachers, makes a significant difference. They provide the emotional support adolescents need to get through tough times. The studies reviewed consistently say that having a supportive environment with open communication, understanding, and encouragement is essential.

3. CONCLUSIONS

1. Research reviews indicate that effective coping strategies and adequate support system are the variables which are considered essential for ensuring psychological wellbeing.
2. As schools, decision-makers, and families deal with the challenges that face adolescents with highly competitive entrance exams, this review calls for a change in perception, thinking and increased sensitivity to the pressure which adolescents experience.
3. It's not just about doing well in exams; it's also about looking after the mental well-being of the adolescents. This review is a strong call to work together to remove the stigma around mental health, set up focused support systems, and create a school environment that helps a student to succeed and maintain good mental health.

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ADVANCEMENTS IN ACHIEVING HEALTH-RELATED SUSTAINABLE DEVELOPMENT GOALS OF BOTH PUBLIC AND PRIVATE SECTOR: A GLOBAL PURSUIT FOR A HEALTHIER TOMORROW

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ABSTRACT

The Indian healthcare industry includes hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment. The government provides limited facilities in rural areas, while the private sector provides most institutions. The sector grows by 22% between 2016 and 2022, reaching USD 372 billion in 2022. Public expenditure on healthcare is expected to increase, with the medical tourism market expected to reach USD 13.42 billion by 2026. India's public healthcare system focuses on rural areas and private sector-run facilities. With a low number of beds, pharmacists, and physicians, India has significant healthcare opportunities. However, future demand is expected to increase due to rising income, health awareness, and preventative healthcare. A comprehensive strategy is needed, involving public, private, and individual sectors. In 2023, India should consolidate and expand its approach to social determinants of health. This study basically tries to make a comparison on public and private sector industrial basin where the provision of it results in a sustainable development approach. The study postulates that the private sector health provisions are much more provisional than public sector industrial units.

KEYWORDS: *Sustainable Development Goals, Zero Hunger, Gross Domestic Product, Public Expenditure, Private Expenditure.*

INTRODUCTION

The United Nations' Sustainable Development Goals (SDGs) outline an ambitious agenda to address global challenges and improve the well-being of people and the planet by 2030. Sustainable development is a holistic approach to growth that seeks to meet the needs of the present without compromising the ability of future generations to meet their own needs. In the face of environmental challenges, social inequalities, and economic disparities, the concept of sustainable development has emerged as a guiding principle for creating a more equitable and resilient world. Among these goals, health-related SDGs play a crucial role in ensuring a healthier future for all. As we approach the midway point of the 21st century's second decade, it is essential to assess the progress made in achieving these health-related objectives and identify areas for continued effort. The basic principles of sustainable development include;

- **Environmental Sustainability:** One of the key pillars of sustainable development is environmental sustainability. This involves responsible resource management, conservation of biodiversity, and mitigating the impact of human activities on the planet. Transitioning to renewable energy sources, reducing carbon emissions, and adopting eco-friendly practices are critical steps toward achieving environmental sustainability. Governments, businesses, and individuals all play vital roles in fostering a balance between human development and environmental preservation.
- **Social Equity:** Sustainable development also emphasizes social equity and inclusivity. It aims to address issues such as poverty, hunger, and access to education and healthcare. Promoting social justice and equality helps build strong,

resilient communities. Initiatives that empower marginalized groups, ensure gender equality, and provide equal opportunities for all contribute to a more sustainable and just society.

- **Economic Prosperity:** Economic sustainability is another crucial aspect of sustainable development. It involves fostering economic growth that benefits all members of society while minimizing negative impacts on the environment. Sustainable business practices, fair labor practices, and responsible consumption contribute to a more balanced and inclusive economy. By encouraging innovation and entrepreneurship, societies can create jobs and stimulate economic growth without depleting natural resources.
- **Global Collaboration:** Addressing global challenges requires international cooperation. Sustainable development encourages collaboration between countries, organizations, and individuals to share knowledge, resources, and technologies. Global agreements, such as the United Nations' Sustainable Development Goals (SDGs), provide a framework for collective action. By working together, the international community can tackle issues like climate change, poverty, and inequality more effectively.
- **Education and Awareness:** Building a sustainable future also requires widespread education and awareness. Individuals need to understand the impact of their choices on the environment and society. Educational institutions, governments, and non-profit organizations play crucial roles in raising awareness and promoting sustainable practices. Through education, people can make informed decisions that contribute to positive change.



The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, is a blueprint for peace and prosperity for people and the planet. It focuses on the 17 Sustainable Development Goals (SDGs), which aim to end poverty, improve health and education, reduce inequality, spur economic growth, tackle climate change, and preserve oceans and forests. The SDGs build on decades of work by countries and the UN, including the UN Department of Economic and Social Affairs. The Earth Summit in 1992, the Millennium Declaration in 2000, and the Johannesburg Declaration on Sustainable Development in 2002 all contributed to the development of the SDGs. The Rio+20 outcome document in 2012 reaffirmed the global community's commitments to poverty eradication and the environment. The annual High-level Political Forum on Sustainable Development serves as the central UN platform for the follow-up and review of the SDGs. The Division for Sustainable Development Goals (DSDG) in the UN Department of Economic and Social Affairs provides support and capacity-building for the SDGs and related thematic issues.

There are different broad categories related with the sustainable development mechanism and it includes

the pursuit of these goals becomes imperative for fostering a world where prosperity is shared, and the planet thrives.

- No Poverty (SDG 1): Eradicating poverty is at the core of sustainable development. By promoting inclusive economic growth, social protection, and equal access to resources, societies can uplift the most vulnerable and build a foundation for sustainable progress.
- Zero Hunger (SDG 2): Ensuring food security is a fundamental aspect of sustainable development. Combating hunger requires not only increased agricultural productivity but also sustainable farming practices, resilient food systems, and reduced food waste.
- Good Health and Well-being (SDG 3): Healthy lives are essential for overall well-being. Achieving this goal involves improving healthcare infrastructure, promoting preventive measures, and addressing issues such as infectious diseases and mental health.
- Quality Education (SDG 4): Education is a key driver of sustainable development. Access to quality education empowers individuals, reduces inequalities, and fosters innovation. Education lays the groundwork for achieving multiple SDGs.
- Gender Equality (SDG 5): Gender equality is not only a human right but also a catalyst for sustainable development. Empowering women and ensuring equal opportunities contribute to economic growth, social cohesion, and overall progress.
- Clean Water and Sanitation (SDG 6): Access to clean water and sanitation is crucial for public health and environmental sustainability. Sustainable water management, pollution prevention, and equitable water distribution are essential components.
- Affordable and Clean Energy (SDG 7): Transitioning to sustainable and renewable energy sources is paramount for mitigating climate change and ensuring energy access for all. Balancing economic growth with environmental responsibility is key.
- Decent Work and Economic Growth (SDG 8): Sustainable economic growth must go hand in hand with job creation and decent working conditions. Promoting entrepreneurship, innovation, and social protection fosters resilient economies.
- Industry, Innovation, and Infrastructure (SDG 9): Innovation drives progress. Sustainable infrastructure, technological advancements, and responsible industrialization are essential for addressing societal needs without compromising the environment.
- Reduced Inequality (SDG 10): Building inclusive societies involves addressing inequalities within and among countries. Policies that promote social, economic, and political inclusivity contribute to stable and sustainable communities.
- Sustainable Cities and Communities (SDG 11): Urbanization is a global trend, and creating sustainable cities requires smart planning, efficient resource use, and resilient infrastructure. Sustainable urban development contributes to improved living standards.



Source: UN

OBJECTIVES

1. To understand about the indicators of the sustainable development goals
2. To study in detail the health care sector in India and Kerala
3. To make a comparative study on private and public health care system in Kerala
4. To formulate suitable measures for the development of health care sector aiming for sustainable development in Kerala

INDICATORS OF SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goals (SDGs) represent a universal call to action, urging nations, communities, and individuals to work collectively towards a more sustainable and equitable future. Adopted by all United Nations Member States in 2015, the 17 SDGs encompass a broad spectrum of interconnected objectives, addressing social, economic, and environmental challenges. As we navigate the complexities of the 21st century,



- **Responsible Consumption and Production (SDG 12):** Ensuring sustainable consumption patterns and responsible production processes minimize environmental impact. Reducing waste, promoting recycling, and adopting eco-friendly practices are critical elements.
- **Climate Action (SDG 13):** Climate change poses a significant threat to sustainable development. Mitigating its impact and adapting to changes require global cooperation, sustainable energy solutions, and conservation efforts.
- **Life Below Water (SDG 14) and 15. Life on Land (SDG 15):** Preserving marine life and terrestrial ecosystems are vital for biodiversity and environmental balance. Sustainable management of oceans, forests, and ecosystems contributes to the well-being of the planet.
- **Peace, Justice, and Strong Institutions (SDG 16):** Sustainable development relies on stable societies, effective governance, and the rule of law. Promoting justice, reducing violence, and ensuring accountable institutions are essential for progress. Partnerships for the Goals (SDG 17): Achieving the SDGs requires collaborative efforts from governments, businesses, civil society, and individuals. Building strong partnerships fosters collective action and ensures that no one is left behind.
- **Economic Development: Poverty Alleviation:** Sustainable development seeks to reduce poverty through economic growth that benefits all members of society. Poverty is a major determinant of health, affecting nutrition, housing, and access to healthcare.
- **Inclusive Economic Growth:** A sustainable economy promotes inclusive growth, reducing disparities in income and wealth. Inclusive economic policies contribute to better health outcomes for a broader segment of the population.
- **Biodiversity and Ecosystem Health: Food Security:** Sustainable agricultural practices that prioritize biodiversity contribute to food security. Diverse and resilient ecosystems provide a variety of nutritious foods, supporting human health.
- **Ecosystem Services:** Healthy ecosystems provide essential services such as clean air, water purification, and disease regulation. These services directly impact human health and well-being.
- **Global Health Cooperation: International Collaboration:** Sustainable development often requires global cooperation to address transboundary health challenges. Issues like pandemics, emerging infectious diseases, and antimicrobial resistance require coordinated efforts on a global scale.

SUSTAINABLE DEVELOPMENT AND THE HEALTH SECTOR

Sustainable development and health are intricately linked, as both concepts recognize the interconnectedness of environmental, social, and economic factors in shaping human well-being. Sustainable development refers to meeting the needs of the present without compromising the ability of future generations to meet their own needs. Health, on the other hand, is a state of complete physical, mental, and social well-being.

Here are some key ways in which sustainable development and health are connected:

- **Environmental Health: Air and Water Quality:** Sustainable development emphasizes responsible resource management and pollution control, which directly impacts the quality of air and water. Clean air and water contribute significantly to human health and well-being.
- **Climate Change:** Addressing climate change is a critical aspect of sustainable development. Climate change can lead to various health risks, such as the spread of infectious diseases, heat-related illnesses, and the disruption of food and water supplies.
- **Social Equity and Justice: Access to Healthcare:** Sustainable development aims for social equity and justice, ensuring that everyone has access to essential services, including healthcare. Improving healthcare accessibility is crucial for promoting overall community health.
- **Education and Employment:** Sustainable development involves investing in education and creating job opportunities, contributing to improved socioeconomic conditions. Education and employment are key determinants of health, influencing factors such as income, lifestyle, and access to healthcare.

GROWTH AND POTENTIALITY OF THE HEALTH SECTOR

India's hospital industry, accounting for 80% of the healthcare market, is experiencing significant investor demand. The country ranks 10th in the Medical Tourism Index for 2020-2021, with foreign tourists arriving for medical purposes increasing from 1.83 lakh in 2020 to 3.04 lakh in 2021. The diagnostics industry is valued at \$4 billion, with a 25% organized sector. The healthcare sector is expected to grow at a CAGR of 22% between 2016-22, reaching \$372 billion in 2022. Public expenditure on healthcare is expected to rise. India's healthcare sector has experienced significant growth due to factors such as population increase, life expectancy, affordable private healthcare, and government emphasis on improving healthcare. With a \$40 billion value, Indian healthcare is now valued at over \$40 billion, with 80% of spending in the private sector. Medical tourism has become a popular destination, with \$2 billion in business. However, by 2030, India will become the most populated nation globally, with approximately 200 million people being at least 60-years-old.

India's healthcare expenditure is insufficient, accounting for only 4.1% of GDP, the lowest among the BRICS countries. The country faces several health economic challenges, including diabetes, hypertension, tuberculosis, and overpopulation. Diabetes is the most common form of disability-related death in India, with a high number of uncontrolled cases and poor nutrition leading to poor prognosis. Dialysis is expensive for both patients and the country's economy, with cataract and glaucoma requiring equal monetary help for treatment. Hypertension is the sixth most common form of disability-related death in India, with poor nutrition, low air quality, and awareness of risk factors like smoking contributing to its prevalence. Treatment is expensive, with generic medicine



provided to the poor and expensive interventions like stenting and anticoagulant and statin therapy. The government provides generic medicine but the prognosis is not always good, leading to increased demand from the government and a decline in the economy.

Tuberculosis (TB) is the most significant burden in India, costing \$32 billion per year. Despite efforts to build vaccines and prevent TB, the cost of BCG vaccination surges due to the large population. Reporting all cases to the WHO creates pressure on the country to escape this lethal and highly contagious disease. Overpopulation also poses major concerns for India's economics. Feeding the population and managing its illnesses is not a piece of cake, and the country must address these issues to ensure its long-term success.

The health care trends and factors could however be summarised as below;

- **Medical Tourism:** In 2020, India's medical tourism market was estimated to be worth \$5-6 billion, projected to grow to \$13 billion by 2026. India is known for offering cost-effective and high-quality medical services, attracting international patients.
- **Overall Healthcare Sector Growth:** The healthcare sector in India is expected to reach \$50 billion by 2025, indicating significant growth in the industry.
- **Digital Healthcare Market:** The digital healthcare market is projected to grow by more than 20% by 2023, reflecting the increasing adoption of digital technologies in healthcare services.
- **Telemedicine Market:** Telemedicine is identified as a high-potential eHealth segment, expected to reach \$5.4 billion by 2025, showcasing the growing importance of remote healthcare services.
- **Public Expenditure on Healthcare:** India's public expenditure on healthcare stood at 2.1% of GDP in 2021-22, an increase from previous years. This reflects the government's commitment to invest in the health sector.
- **National Digital Health Blueprint:** The National Digital Health Blueprint aims to unlock incremental economic value of over \$200 billion for the healthcare industry in India over the next 10 years, emphasizing the role of digital health initiatives.
- **Ayushman Bharat - Health Insurance Scheme:** India has the world's largest health insurance scheme, Ayushman Bharat, supported by the government. This initiative aims to provide financial protection to a large section of the population for their healthcare needs.
- **Foreign Direct Investment (FDI):** India allows 100% FDI under the automatic route for greenfield projects and permits up to 100% FDI in brownfield projects under the government route, encouraging foreign investments in the healthcare sector.
- **Medical Tourism Promotion:** The Indian government is actively promoting medical tourism by extending the e-medical visa facility to citizens of 156 countries, making it easier for international patients to seek medical treatment in India.

- **Wearable Technology:** India is emerging as a strong market for wearables, with a significant increase in sales. Approximately 2 million units were sold in 2017, and this number is expected to reach 129 million units by 2030.
- **Surgical Robotics Market:** The surgical robotics market in India is projected to expand significantly, reaching a size of \$350 million by 2025, indicating the increasing adoption of advanced medical technologies.

The facts from the economic survey 2021-22 suggests that

- **Healthcare Accessibility and Quality:** India's ranking of 145th out of 180 nations in terms of healthcare accessibility and quality, according to the Global Burden of Disease Study 2016, suggests that there are significant challenges in ensuring widespread access to quality healthcare services in the country.
- **Doctor-to-Population Ratio:** The goal of achieving a doctor-to-population ratio of 1:1000 by 2030 reflects the need for a substantial increase in the number of healthcare professionals. The requirement of an additional 2 million doctors indicates the scale of the shortage and the need for efforts to expand medical education and healthcare workforce.
- **Disease Burden:** Despite having 17% of the world's population, India bears a disproportionately large portion (20%) of the global disease burden. This indicates a high prevalence of diseases, which could be attributed to various factors such as population density, environmental conditions, lifestyle factors, and healthcare infrastructure.
- **Public Healthcare Spending:** India's public healthcare spending increased from 1.8% of GDP in 2020-2021 to 2.1% in 2021-2022. While this represents a positive trend, it still falls short of the recommended spending levels for a country of India's size and population. Adequate funding is crucial for improving healthcare infrastructure, ensuring the availability of essential medicines, and addressing the healthcare workforce shortage.

HEALTH CARE SETCOR IN KERALA-A SECONDARY ANALYSIS

Kerala has a rich history of organized health care, dating back to the indigenous systems of Ayurveda. Colonial powers introduced their medical system to the region, and in the 19th century, princely rulers in Travancore and Cochin made western care available. A royal proclamation in 1879 made vaccination compulsory for public servants, prisoners, and students. Public health authorities also took measures to control cholera during fairs and festivals. In 1928, parasite surveys were conducted in Travancore, leading to control measures against hookworm and filariasis. Health services expanded beyond preventive care, with general hospitals in Trivandrum and Cochin being 150 years old. Initiatives included providing safe drinking water, state-supported primary education, and establishing mission hospitals in remote areas. Kerala state was established in 1956, with a significant portion of government expenditure dedicated to health services. Social sectors, including education and health, accounted for a large share of development expenditure. From 1956 to the early 1980s, the government experienced significant growth and expansion of health services, with an annual compound growth rate of 13.04%. From 1961 to 1986,



the state expanded its government health facilities, with beds and institutions increasing significantly.

The fiscal crisis in Kerala from the mid-1970s to the early 1990s led to unprecedented growth in revenue deficits, which were higher than the All-States average in India. During this period, expenditure on health grew, with capital spending stagnating by the mid-1980s before rapidly declining, while revenue spending continued to grow into the 1990s. This was due to the salary component in revenue expenditure, which showed no sign of diminishing during most of this period.

Successive governments committed to growing expenditure on salaries due to increases in jobs created and pay, resorted to cutting back supplies when faced with growing fiscal difficulty. Spending on supplies showed a definite downturn by the latter half of the 1980s, affecting the secondary sector and primary sector. The quality of medical care in government hospitals must have been affected, as only 23% of households regularly utilized government health services.

The government has been aware of the increasing scarcity of funds in the health sector, but in practice, this rule is systematically breached. There is no mechanism to verify the self-declared income of patients, and even those who are willing to declare their true income and pay for services are discouraged due to administrative delays. Most people prefer to understate their incomes when seeking services in the public sector, resulting in very low cost-recovery in government hospitals, under 5%. The Resources Commission recommended enforcing the collection of user charges more actively, but successive governments have been unable to implement the suggestion fully due to politically motivated popular resistance.

Development of private health care facility in Kerala

Private hospitals in Kerala have seen a nearly 40% growth in beds and employment of personnel compared to government facilities, with the number of beds in government institutions growing from around 36,000 to 38,000. Private hospitals have also outpaced government facilities in providing high-tech diagnostic and therapy methods, such as computerized tomography (CT) scans, endoscopy units, magnetic resonance imaging (MRI), neonatal care units, and coronary units.

The growth in the private sector can be attributed to rising disposable incomes and the lack of barriers to opening a private hospital. The absence of government legislation relating to hospital start-up, running, and profit generation was a feature shared with most Indian states, but the high demand for health care in Kerala probably provided the impetus for the growth in its private health sector.

The ageing population in Kerala during the same period also influenced the demand for health care, with life expectancy for men reaching 60.6 years and women at 62.6 years. The growing number of people with longstanding illnesses and the growth in disposable incomes meant that an ever-greater number of people were prepared to pay money for health care.

The pattern of distribution of facilities in the private and government sectors in health in Kerala provides insights into

the dynamics of the growth. The average density of beds in the private sector is almost twice that in the government sector, indicating the proliferation of facilities in the private sector. Factors in the social milieu of Kerala, such as high levels of education, settlement patterns, rapid proliferation of health facilities, and changing income distribution, could have contributed to the growing demand for private health care.

DATA METHODOLOGY

The study used data from various government databases, healthcare websites, and PubMed articles to analyse equity, access, healthcare, health insurance, health economic evaluation, and health technology assessment in India, focusing on the last 10-12 years. The study makes a comparison between the public and the private sector health care provisions incorporating six districts in Kerala. It also makes a comparison world wide to know the status of Indian economy in the health potentiality.

DATA RESULTS

India's \$41 billion healthcare industry is expanding due to factors like declining infant mortality, longer life expectancy, and increasing population. Public health expenditure in India has increased from 1.3% of GDP to 1.4% in 2016-17, with a proposed increase to 2.5% by 2025. The total health expenditure, including private sector, is estimated at 3.9% of GDP. The Department of Health and Family Welfare has seen a 13% annual growth rate, with an additional spending of USD 2159.907 million in 2020-21. Households directly pay for healthcare, with 52% of OoPE going towards medications. Public spending on health primarily involves allopathic medication delivery in urban and rural areas. Only 14% and 19% of rural and urban areas are covered by insurance schemes, pushing 7% of the population below poverty thresholds annually. India's health insurance schemes began in the 1950s with the Central Government Health Scheme (CGHS) and Employees State Insurance Scheme (ESIS). The Insurance Regulatory and Development Authority (IRDA) Bill was passed in 1999, leading to the creation of numerous programs. Since 2007, India has seen a surge in public health insurances, including various schemes for the poor and those below the poverty line.

Health insurance schemes in India include voluntary schemes, mandatory schemes, NGOs, and employer-based schemes. The most recent scheme, 'Ayushman Bharat', was launched in September 2018 and covers over 10 crore poor families and 50 crore beneficiaries. The scheme is funded by NGOs and government grants, patient collection, and donations. The scheme is expected to reduce OoPE, covering nearly 40% of the population, including the poorest and most vulnerable sections. The coverage is based on the Socio Economic and Caste Census database.

The Ayushman Bharat Pradhan Mantri - Jan Arogya Yojana (AB PM-JAY) is the largest publicly funded health assurance scheme globally, providing health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization. As of 20th December 2023, approximately 28.45 Crore Ayushman Cards have been created, with 9.38 crore created



during the current year. The scheme has authorized 6.11 crore hospital admissions, with 1.7 crore admissions worth over Rs. 25,000 crores authorized in 2023. The scheme ensures gender equity in healthcare access, with women accounting for 49% of the total Ayushman cards created and 48% of authorized hospital admissions. The Ayushman Bhava initiative aims to increase healthcare coverage at the village level, with the National Health Authority launching an Android-based 'Ayushman App' for self-verification.

The Indian government healthcare system comprises primary, secondary, and tertiary facilities, with rural India's healthcare needs addressed by primary health centers and community health centers. These centers cater to 80,000 to 120,000 people and include Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwife (ANM), and Anganwadi workers (AWW). The Ministry of Health and Family Welfare launched programs to promote child development services. The private sector, which includes single-owned practitioners, small nursing homes, and large hospitals, has experienced rapid expansion and dependence on government-sponsored health schemes.

The Universal Health Coverage (UHC) aims to provide healthcare services to everyone without financial barriers. Four key financing strategies are identified by WHO: increasing government budgets, taxation efficiency, development assistance, and innovation in health financing. The National Health Policy 2017 aims to increase health expenditures to 2.5% of GDP by 2025, reduce households facing catastrophic health expenditure by 25%, and launch initiatives like Ayushman Bharat, National Rural Health Mission, and Janani Suraksha Yojana. The National Health Policy aims to deliver quality health services at an affordable cost, and the government has implemented initiatives like health and wellness centers, inclusion of Ayurveda practitioners, hygiene sanitation, immunization coverage, maternal mortality reduction, labor room quality improvement, ICT use, and national programs for AIDS and TB.

MAIN FINDINGS

- **Healthcare Infrastructure Development:** The healthcare infrastructure in India has not kept pace with economic growth. India's performance on health, equity, and quality indices is unsatisfactory.
- **Government Spending on Healthcare:** The percentage of total government expenditure on healthcare in India is 2.9%, which is lower compared to other countries such as the US (18.9%), Germany (17.3%), Japan (17.2%), the UK (15.9%), and China (10.1%). Out of the total health

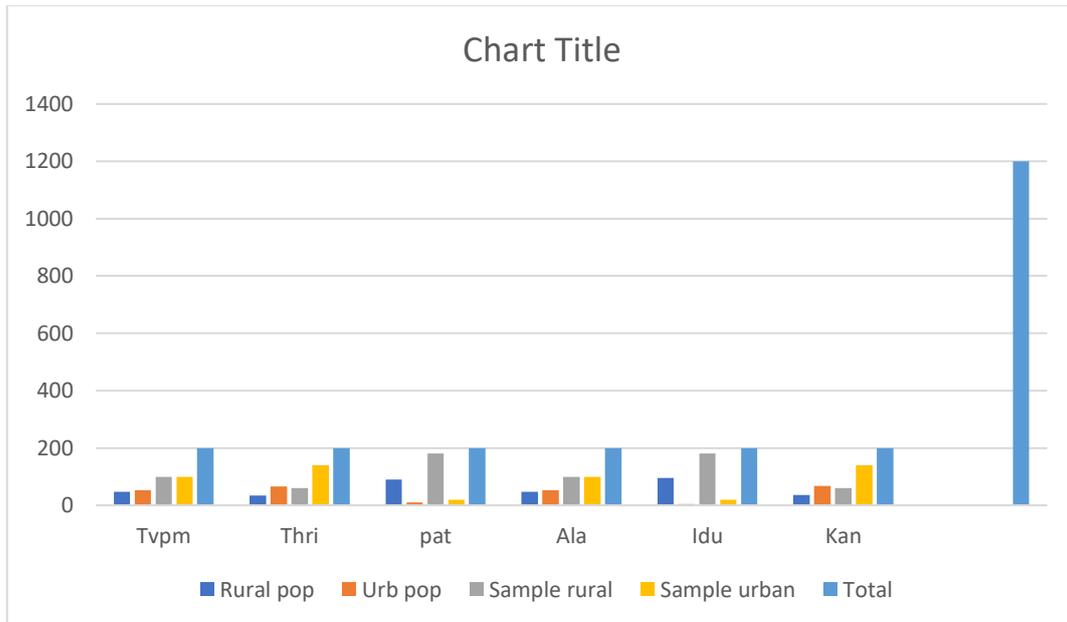
expenditure in India, the contribution of the central government is 17.3%, significantly lower than other countries like the UK (86.3%), Japan (81.3%), Germany (76.9%), the US (44.7%), and China (38%).

- **Private Health Expenditure and Out-of-Pocket Expenditure (OOPE):** Private health expenditure exceeds government expenditure in India. The majority of health expenditure in India comprises out-of-pocket expenditure (OOPE), indicating a heavy burden on individuals.
- **Role of Private Sector in Outpatient Services:** The private sector plays a significant role in providing outpatient services in low- and middle-income countries. In India, more than 90% of diarrhoea-affected children approach private healthcare providers, emphasizing the dominance of the private sector in healthcare services.
- **The healthcare systems of developed countries like the US and India differ in their private sector and public sector approaches.** The US has higher spending per capita on healthcare, low OOPE, and enhanced private health insurance coverage. India, on the other hand, lacks affordable primary and specialty care and widespread insurance coverage. Concerns over rising healthcare costs are common in both countries, and both spend a relatively small percentage of their GDPs on healthcare. China places greater emphasis on the public sector, increasing its healthcare spending faster than India. India ranks 145th among 195 countries on the Health Access Quality (HAQ) index, with large disparities observed in subnational levels of healthcare quality and access. To achieve Universal Health Coverage (UHC), India should emulate developed countries that have successfully implemented UHC, focusing on maximum coverage of healthcare costs by the public sector and fortifying the primary healthcare system. India can also raise more income tax revenue to improve infrastructure and finance for higher public spending on health.

The study mainly focuses on the data from Kerala with a comparison of broad public and private sector and includes measurements comparing its potentiality for sustainability development. This study used a cross-sectional survey of 1200 households from six randomly selected districts. The sample size was 200 households from each district, with each ward selected using simple random sampling. The survey involved two data collectors from each ward, visiting each household until ten households were completed. A respondent from each household was chosen to complete the questionnaire. The proportion of rural and urban samples in each district was proportionate to the population of the individual districts.

District	Rural pop	Urb pop	Sample rural	Sample urban	Total
Tvpm	47	53	100	100	200
Thri	34	66	60	140	200
pat	90	10	180	20	200
Ala	47	53	100	100	200
Idu	96	4	180	20	200
Kan	36	67	60	140	200
					1200

Table 1: Sample



The survey made use of a structured questionnaire to examine health care seeking practices for chronic and acute morbidity, adapted from the NSSO 71st round questionnaire related to social consumption and health. The results postulates that in Kollam district found that 59.3% of the population sought treatment for diabetes, with 60% using modern medicine, 30% using modern medicine and CAM, and 9% exclusively CAM. A study on elderly falls found that 67% sought care from government facilities, 29% from private hospitals, and 4% from general practitioners. A study on diabetes found that 54% preferred private hospitals and clinics, while 26% took treatment from government facilities. Postpartum screening showed that 50.4% used private hospitals, while 57.8% of deliveries took place in private hospitals. A study on gynaecological morbidity found that 52% of perimenopausal women sought treatment in private hospitals. The study surveyed households in Kerala, India, focusing on their drinking water sources. The majority of households had tap water, with one in five having it, and one in five sourcing it from their tube wells. Over half had well as their main source, but close to 10% had potentially low-quality sources like tankers, rivers, and open ponds. The majority of households had their own toilets, with 94% having septic tanks or flush systems. However, 1.6% had no or shared toilets. Around 64% used LPG as the main cooking fuel, while over one-third still used firewood. Hospitalization rates varied across age groups, with older individuals reporting more, followed by those under 10. Insurance coverage also showed significant differences, with no significant difference between males and females.

Kerala has a high population to bed ratio, with 939 hospital beds per 10,000 population in 2017. This is better than other Indian states, but the WHO recommends a global average of 3.98 beds per 1000 population. Health facility density and inpatient bed density are commonly used indicators for national and regional comparisons. However, these indicators can be influenced by variations in hospital size and geographical clustering, leading

to erroneous conclusions about service availability and inter-district comparisons.

Health facility density is primarily used to assess outpatient care, but most figures published for Kerala at the state and national levels are based only on facilities under the Directorate of Health Services. Data regarding inpatient beds is published based on sanctioned beds, not functional beds. To assess the efficiency of healthcare services, better indicators like average length of stay during hospitalization and bed occupancy rate should be generated routinely.

Conventional indicators are not useful for gauging regional disparities within and between districts and identifying marginalized groups in terms of availability and access to care. Morbidity rates for acute illnesses and chronic diseases are high, with an increase in chronic diseases morbidity rate indicating the growing burden of non-communicable diseases in the state.

The study postulates that the private sector has been the primary provider of inpatient and outpatient curative services in Kerala and India since the 1990s. Surveys show that 62% of inpatient care is provided by the private sector, with 55.5 percent of hospitalization episodes in the previous 365 days being in the private sector. Reasons for seeking private care include unavailability of services, long waiting times, perception of low-quality services, and distance to facilities. In acute illnesses, 61% of people approached a government source or facility, with PHC/CHC being the most common facility. Only 45% of households have insurance coverage, but 24% of claims from the private sector are covered by government insurance schemes. Speciality care, such as cardiology, nephrology, delivery care, and blood bank services, still dominates the public sector.



Realms	Sector	P Value
Reliable	Public and pvt	0.01
Tangible	Public and pvt	0.86
Responsive	Public and pvt	0.62
Assure	Public and pvt	0.79
Empathetic	Public and pvt	0.88
perceptions	Public and pvt	0.74

Table 2: P value of public and private sector health care facilities

MODEL	β	SD	Beta	Confidence interval	Sig
Constant	3.29	0.12	-	3.05–3.54	0.00
Waiting Time	0.04	0.01	0.11	0.01–0.06	0.00
Place of Receiving Services	0.00	0.00	-0.11	0.00–0.00	0.00
Type of Services	0.11	0.05	0.07	0.01–0.21	0.02
Education	-0.04	0.02	0.07	0.02–0.08	0.04
Occupation	0.02	0.01	0.06	0.00–0.04	0.05

Table 3: Linear regression factors affecting the perception of quality health services

The main findings of the study found out that there is a significant gap in tangible health care quality between public and private sectors, while private sector quality was higher in tangibility. Factors affecting perceptions included waiting time, location of services, services types, education, and occupation of participants. However, no significant difference was observed in other areas of health services quality.

CONCLUSION

Thus, India's large population has led to overburdened public hospitals, necessitating urgent improvements. The government should support private hospitals, as they significantly contribute to the health sector. To enhance efficiency, more medical personnel should be hired and technology, such as medical gadgets, mobile health apps, wearables, and sensors, should be used. Mental health care services should be improved through increased financing, education, and stigma reduction. Addressing health disparities requires collaboration with other sectors like education, housing, and sanitation. Sustainable health governance can promote efficient healthcare services through better management systems and independent oversight mechanisms. Public awareness of early detection and prevention is crucial for saving money on out-of-pocket expenses. The "one health approach" aims to address the connections between human and animal health. Health plays an important role in maintaining the sustainable development potentiality of Indian economy that is meeting the needs of the

present generation without sacrificing the needs of the future generation.

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NEURON-SPECIFIC ENOLASE AS A MARKER OF PERINATAL CENTRAL NERVOUS SYSTEM DAMAGE IN CHILDREN WITH BRONCHIAL ASTHMA

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ABSTRACT

One of the most common childhood diseases that affects the quality of life of patients and their families, which in severe cases leads to disability, is bronchial asthma (BA). The results of recent studies show that the majority of children with bronchial asthma have a history of perinatal damage to the central nervous system (CNS), which increases the risk of developing bronchial asthma in children of preschool age by 3.4 times. Particular attention of researchers is drawn to the study of the diagnostic and prognostic significance of biochemical markers of neuronal damage in fetuses and newborns, in particular, neuron-specific enolases. In this regard, it is of interest to study the level of neuron-specific enolase in children with asthma who suffered perinatal damage to the central nervous system.

KEYWORDS: bronchial asthma, perinatal damage, central nervous system, newborns, adolescents, neuron-specific enolase.

Bronchial asthma is a common chronic inflammatory allergic disease of the respiratory system in childhood. Disability among the child population due to allergic diseases is formed mainly due to bronchial asthma, so the priority task is to find methods for predicting the development of severe forms and uncontrolled course of the disease [6,8,13,19].

According to research data, more than 80% of all cases of bronchial asthma (BA) have their origins at an early age, manifesting themselves in repeated episodes of broncho-obstructive syndrome against the background of acute respiratory viral infections [6,7,15].

Various adverse effects in the ante- and postnatal period can contribute to the sensitization of the child's body, change

the functional activity of the neuroimmune-endocrine system, which affects the development of allergic inflammation and bronchial hyperreactivity [7,8].

Recently, an opinion has increasingly been expressed about the serious contribution of hypoxic damage to the central nervous system (CNS) and prematurity in the genesis of bronchial asthma. Hypoxia and prematurity are factors in the imperfection of the newborn's immune response, leading to frequent infectious diseases that disrupt the neurogenic regulation of the bronchi [8,13,21]. Some studies have noted a correlation between the depth of CNS damage and the severity of BA symptoms caused by more severe neuro-immune-endocrine imbalance [6,7,16].

Neurological and psychopathological disorders that develop as a result of perinatal central nervous system lesions (PCNSL) naturally close the vicious circles of AD pathogenesis, limiting

the patient's adaptive capabilities throughout life. In this regard, the study of clinical and dynamic features of psychoneurological disorders in children with BA is a very urgent task, as it can help improve methods of prevention and treatment of this disease [7,8,20].

It has been proven that perinatal damage contributes to the frequent development of bronchial obstruction in children in the first years of life [9,18]. However, in order to fully reveal the pathogenetic mechanisms of the formation of asthma in children, a comprehensive examination using modern diagnostic methods is necessary [11,13].

In this regard, special attention of researchers has been drawn to the study of the diagnostic and prognostic significance of biochemical markers of neuronal damage in fetuses and newborns [2,3,5,12,14,16]. These markers include neurotrophins and neurospecific proteins that play an important role in brain development. One of the markers of neuronal damage is neuron-specific enolase (NSE), which is localized in the cytosol of neurons and endocrine cells and is found in the blood when they are destroyed [1,3,4,7,9,15].

Enolase is a glycolytic enzyme. In other words, it is involved in the breakdown of carbohydrates. In this case, energy is released, which is used to support various life processes. This enzyme is present in all cells, but different tissues contain different species (isoforms). So, one of them is neuron-specific enolase (NSE), which is localized in neurons [1,2,10,12,17].

It has been shown that an increase in its level in premature newborns who have suffered asphyxia or cytomegalovirus



infection is an unfavorable factor in relation to the prognosis of further psychomotor development [1,3,5,10,16,18].

Morozova A.Yu. et al. (2019) found that in full-term newborns with intrauterine growth retardation of II-III degrees, not only the content of neuron-specific in the blood is increased by 2-2.5 times enolase, but also a low level of neurotrophic growth factor is determined [10,12].

All of the above once again proves the need for an in-depth study of the course of bronchial asthma in children at the present stage with clarification of the role of perinatal damage to the nervous system and, especially, the content of neuron-specific drugs in the blood, enolase (NSE) with the development of timely diagnostic methods.

THE PURPOSE OF THE STUDY was to study the content of neuron-specific enolase in children with bronchial asthma as a predictor of perinatal damage to the central nervous system.

MATERIALS AND METHODS. The study was conducted on the basis of the pulmonology department of the regional children's multidisciplinary medical center Samarkand. The study is based on data from a comprehensive examination of 48 children with bronchial asthma (BA) aged 5-11 years. Observation of patients began with a detailed analysis of the perinatal history. The anamnestic data of the examined children was documented by an extract from the maternity hospital.

When selecting patients for the study, the inclusion criteria were all children diagnosed with asthma aged 5 to 11 years. Exclusion criteria included children under 5 and over 11 years of age; concomitant gross somatic pathology and organic neurological symptoms. The control group consisted of 18 practically healthy children of identical age. The criteria for selecting children into the control group were the absence of

active complaints during a targeted survey of children and their parents. Clinical neurological examination revealed no signs of organic damage to the nervous system; medical documentation data did not contain information about the pathology of the perinatal period, inflammatory and traumatic diseases of the nervous system.

The level of NSE, a highly specific marker of neuronal damage, was determined by enzyme-linked immunosorbent assay (ELISA) using "Nikom Can kits Ag NSE EIA" (Sweden) according to the manufacturer's instructions. The ELISA results were taken into account photometrically using a Stat photometer Fax » 1904+ USA. Before the analysis, it was recommended to adhere to the following preparation rules: refrain from intense physical activity for 2-3 days; Do not eat fatty foods for 1 day. To determine NSE concentration, blood was taken from the antecubital vein. The data specified by the developer company were used as normal values; NS E 13.0 µg/l was considered the upper limit of normal values.

RESEARCH RESULTS. During the study, the observed children with BA were divided into 2 groups: the first (main group) group consisted of 25 children with BA, whose perinatal history contained indications of prenatal, intranatal or postnatal risk factors for the development of perinatal CNS damage.

The second group (comparison group) - 23 children with asthma without concomitant damage to the perinatal central nervous system. The children's mothers were healthy and the pregnancy proceeded without complications.

The distribution of children by age and gender in the observation groups showed their comparability (Table 1). In both groups of children with asthma, boys slightly predominated, amounting to 54.2%, and the average age of the examined children with asthma was 7.75±0.99 years.

Table 1
Gender and age characteristics of the examined children

Sign	Main group (n=25) abs. /%	Comparison group (n=23) abs. /%	Control group (n =18) abs. /%
Boy, abs. /%	14; 56	12; 52.2	10; 55.6
Girl, abs. /%	11; 44	11; 47.8	8; 44.4
Average age, years	7.8±1.1	7.65±0.89	7.65±1.12

Analysis of the perinatal history showed in the main group of children with BA the predominance of low birth weight among prenatal factors (RR=0.521; $\chi^2=10.6$; P<0.05), severe toxicosis in the mother (RR=0.642; $\chi^2=12.9$; P<0.01), fetoplacental insufficiency (RR=0.565; $\chi^2=12.7$; P<0.01). Among the intrapartum factors, bleeding was noted with placenta previa (RR=0.792; $\chi^2=19.1$; P<0.001), prolonged difficult labor (RR=0.811; $\chi^2=15.4$; P<0.01), as well as fetal hypoxia during labor (RR=0.621; $\chi^2=13.7$; P<0.05). Postnatal risk factors were represented mainly by mechanical ventilation after the birth of the child (RR=0.621; $\chi^2=14.9$; P<0.05), neonatal seizures (RR=0.741; $\chi^2=17.9$; P<0.01).

Analysis of delivery and the condition of the child at birth in the observation groups showed that of the total number of children in the main group, 11 were born naturally (44%), and 14 (56%) were delivered by cesarean section, the indications for which were the lack of effect from treatment of gestosis and chronic placental insufficiency. Whereas in the comparison group these indicators were 22 (95.7%) and 1 (4.3%), respectively. In the control group of children, physiological birth was noted in 100% of cases (Figure 1). The average Apgar score in children in the control group was 8±0.87 points, while in the main group (6±0.77 points) it was significantly lower than even in the comparison group (7.87±0.97 points).

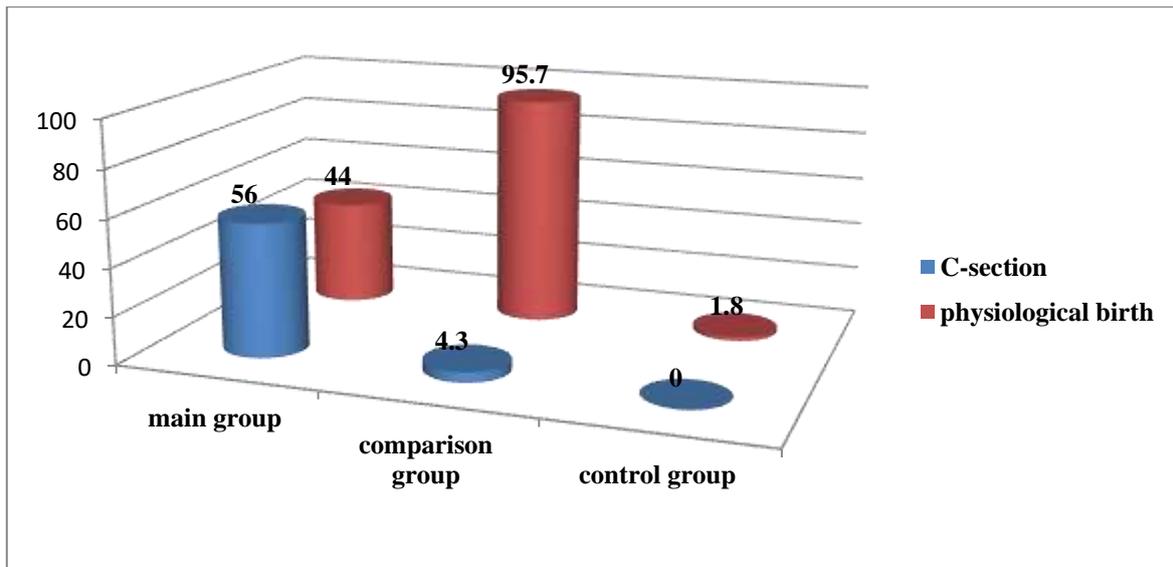


Figure 1. Peculiarities of delivery of mothers in observation groups (%)

The average weight and height of children with asthma at birth in the study group was 3220.0±138.6 g and 53.7±0.8 cm, respectively, while the body weight and height of children in the main group (2976.0±178.9 g and 50.9±0.56 cm) were significantly lower than in the comparison group

(3460.2±133.4 g and 54.7±0.4 cm) ($P < 0.05$). In the control group of children, body weight and height at birth were (3524.2±143.4 g and 55.3±0.7 cm) (Figure 2).

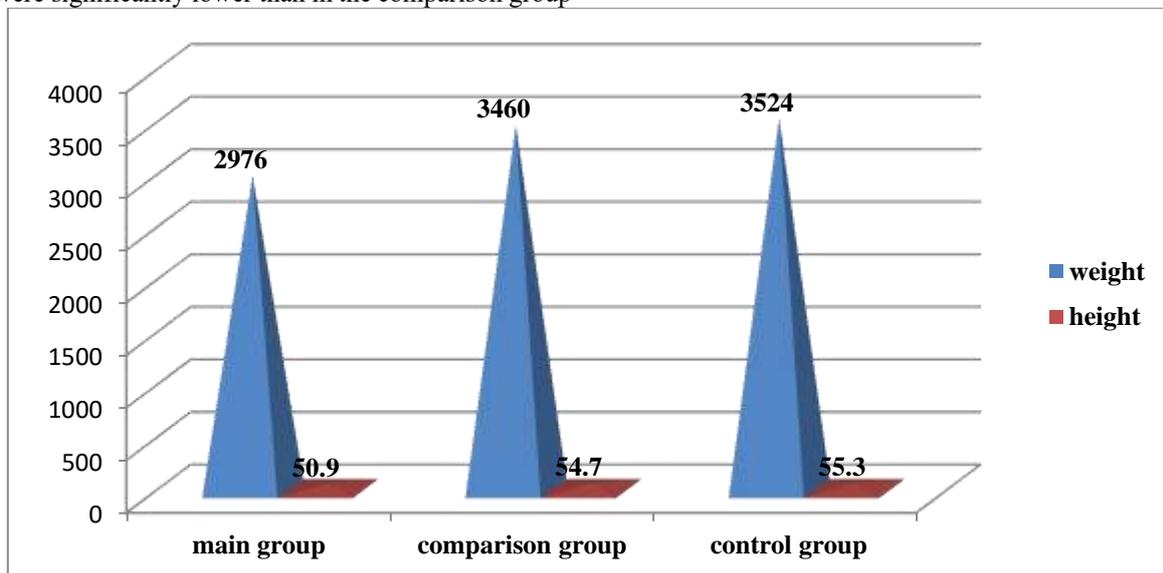


Figure 2. Weight (grams) and height (cm) of children at birth in observation groups

And an analysis of the complaints of children in both observation groups showed that the main complaints during hospitalization of patients in the hospital were expiratory shortness of breath (64.9% and 49.4% in the main and comparison groups, respectively). Dry cough was significantly more common in the main group - 67.3%, while productive cough, on the contrary, was significantly more common in the comparison group - 53.4% and was effective in nature. An increase in expiratory shortness of breath and wheezing at the beginning of the disease was recorded in 42.5% of cases in children with asthma who had a history of perinatal central nervous system damage. Also, patients in the main group were characterized by

complaints of decreased appetite, weakness, fatigue, lack of air, and symptoms of intoxication - 66.8% of cases. It should be noted that in more than half of the cases these complaints were clearly expressed.

A study of the syndromic consequences of perinatal hypoxic damage to the central nervous system in children of the main group revealed various speech disorders (19; 76%), autonomic dysfunction (15; 60%) and hyperreactivity and attention deficit syndrome (20; 80%). Some children in the main group had neuroses and neurotic reactions (7; 28%), as well as a neurogenic bladder (6; 24%) (Figure 3).

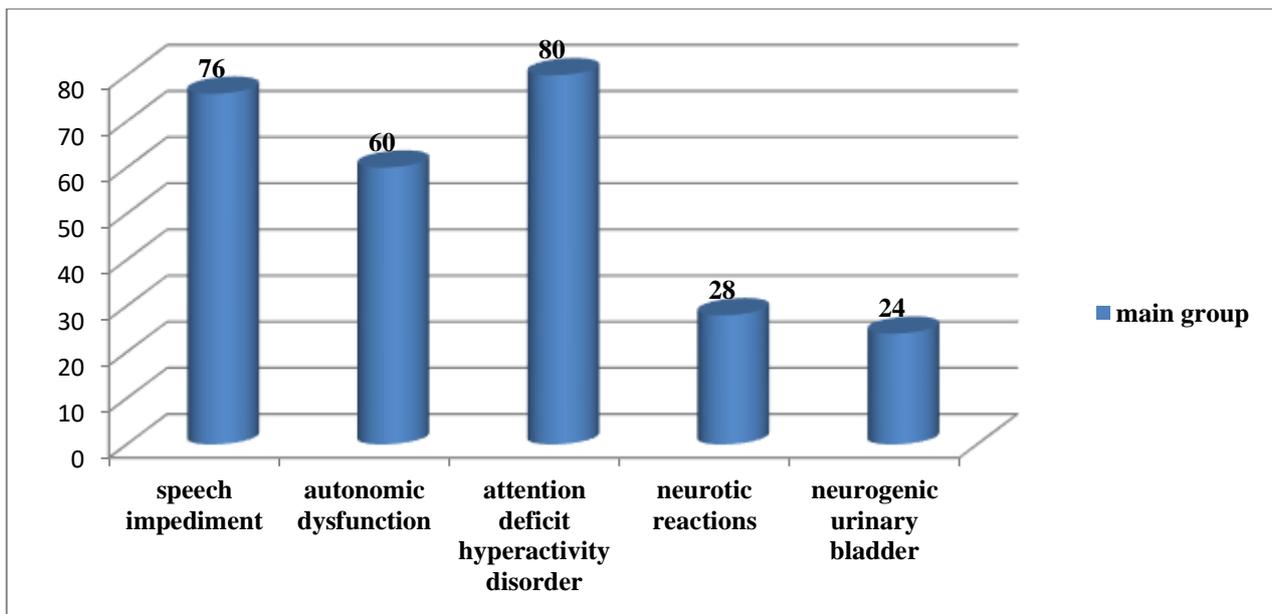


Figure 3. Characteristics of Neurological Syndromes in the main group of children with asthma

At a further stage, the level of neuron-specific enolase in study groups. It was found that in healthy children ($11.1 \pm 1.9 \mu\text{g/l}$) and children with asthma from the comparison group ($12.1 \pm 0.9 \mu\text{g/l}$) the level of neuron-specific enolase was within normal values. Whereas in the group of children with asthma against the background of the consequences of perinatal damage to the central nervous system, this marker was almost 1.9 times higher than the values in the control group and 1.7 times higher than the value obtained in patients from the comparison group, amounting to $21.1 \pm 0.54 \mu\text{g/l}$.

As a result, it was found that, regardless of the severity of the identified neurological syndromes, in the main group of patients there was an inverse correlation between the signs of a strong close connection - $r = 0.699$ ($P < 0.01$).

Thus, the data obtained indicate that the level of neuron-specific enolase in children with bronchial asthma who suffered perinatal CNS damage is significantly higher not only in comparison with healthy peers, but also with children suffering from asthma without signs of perinatal CNS damage. The data obtained can be used not only as important predictors of the prognosis of the severity of bronchial asthma and concomitant conditions, but also, most importantly, to evaluate the effectiveness of the therapy including correction of the neurological status against the background of pathogenetic therapy of the underlying disease.

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FACTORS INFLUENCING CUSTOMERS INTENTION TO PURCHASE RESIDENTIAL PROPERTY IN INDIA

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ABSTRACT

This research investigates the determinants influencing customers' intention to purchase residential property in India, focusing on property-related factors, the surrounding environment, and investment considerations. Drawing from various studies exploring customer buying intention in the Indian real estate market, the findings underscore the critical role of the property's healthiness, value, safety, security, and location in shaping customer buying intentions. Additionally, the surrounding environment, encompassing the neighbourhood, facilities, and accessibility, emerges as a substantial influencer. The study delves into investment-related dynamics, exploring the connection between consumer purchase intention (CPI) and real estate investment decisions. By offering valuable insights, this research equips developers, policymakers, and stakeholders in the real estate industry to make informed decisions and tailor strategies to meet the evolving demands of the market.

KEY WORDS: residential property, purchase intention, real estate, investment decision,

1.1 INTRODUCTION

One of the most significant investments for both people and businesses alike is real estate, which is a dynamic and important sector of the global economy. The global real estate industry is a robust and multifaceted sector that has a significant impact on economies and societies all over the world. It includes a wide range of properties, including residential, commercial, industrial, and specialised properties like resorts and hotels. Real estate, with its broad reach, serves as both a reflection of economic prosperity and a driver of further development. One of its most important roles is to contribute to economic growth, as it accounts for a significant portion of a country's wealth and GDP. Construction, sale, and maintenance of real estate properties create jobs and stimulate related industries such as finance, architecture, and interior design. (Musole., 2009). Another critical factor reshaping the global real estate landscape is urbanisation. The ongoing migration of people to cities has increased demand for urban real estate, which includes both housing and commercial spaces. As real estate companies strive to meet the changing needs of urban populations, this trend has created new opportunities and challenges. Real estate is a popular asset class among investors due to its potential for long-term growth and wealth preservation. This is due to the fact that it provides tangible, appreciating assets, often delivering rental income and capital appreciation, attracting both individuals and institutions (Liu et al., 2018). Real estate plays a pivotal role in fostering job creation and driving economic growth. The decision to invest in real estate is intricately linked to job growth, influencing factors such as demand, population dynamics, and overall economic well-being. The development and ongoing operations of commercial real estate constitute a significant source of employment, supporting millions of jobs and making substantial contributions amounting to trillions in economic value (Mallick & Mahalik., 2010). Meanwhile, the acquisition

of residential property represents a significant life decision that extends beyond the mere physicality of a structure. In navigating this profound juncture, potential homeowners are confronted with a plethora of factors that intricately shape their intentions and choices. This essay embarks on a comprehensive exploration of the multifaceted landscape defining customers' intentions to purchase residential property. The decision-making process involved in such a substantial investment involves considerations that extend beyond tangible aspects. These considerations encapsulate the intricate interplay of location, affordability, quality, promotional strategies, and corporate image. Recognizing the depth and complexity of these influences is paramount in comprehending the evolving dynamics of the real estate market and is central to the strategic efforts of developers, marketers, and policymakers alike (Rachmawati et al., 2019). Purchasers of various types of flats and apartments attribute distinct levels of significance to different influencing factors and buyers' behaviour holds valuable insights for real estate marketers, enabling them to discern the most pivotal factors for diverse categories of buyers and implement tailored strategies accordingly. Such nuanced understanding is instrumental for real estate companies in aligning their marketing approaches with the specific preferences and priorities of varied buyer segments, ultimately enhancing their effectiveness in the competitive market (Sundrani.,2018). Location, quality, and price are the main factors influencing consumers' decisions to buy along with unique characteristics associated with each of these variables. Which includes factors like the sort of economy, loan accessibility, quality perception, professional opinions, emergency service availability, and pollution levels (KK & PK., 2015). The real estate sector is very interested in learning more about the elements that influence consumers' intentions to buy residential property. The relationship between consumer purchase intention (CPI) and preferred individual investment



amount, the impact of joint information framing and personality traits on housing purchase decisions, and the relationship between CPI and consumption have all been studied in relation to real estate. Numerous elements have been shown in this research to have an impact on consumers' preferred residential property investment levels, including attitude, social power, subjective norms, perceived behaviour control, location, surrounding environment, and legal documents (Hassan et al., 2021 and Kabir et al., 2023). In order to suit the wants and preferences of prospective property purchasers, real estate developers and policymakers must have a thorough understanding of these aspects in order to make informed judgments and customize their tactics (Karunarathne & Ariyawansa., 2015). In the context of the ever-changing real estate milieu, understanding the nuanced factors at play becomes not just an academic pursuit but a strategic imperative for those engaged in the dynamic realm of residential property transactions. Factors influencing residential property purchases, including quality, price, location, promotion, and corporate image. Contrary to prior studies, it revealed a nuanced hierarchy, with location and price being the foremost determinants. Quality and corporate image had diminished impact, while promotion played a minor role (Jing-yi et al., 2023).

1.2 PROBLEM STATEMENT

Given the intense competition in India's real estate market, developers and policymakers must have a thorough understanding of the factors influencing consumers' intentions to buy residential real estate in order to make well-informed decisions and customize their approaches to suit the needs and preferences of prospective buyers. Comprehensive studies on the variables influencing buyers' intentions to buy residential real estate in India are, nevertheless, lacking (Omrane & Bag., 2022). This conceptual paper's goal is to determine and examine the variables that affect consumers' decisions to buy Residential Property in India By examining the relationship between consumer purchase intention (CPI) and preferred individual investment amount, the impact of CPI in real estate, the influence of joint information framing and personality traits on housing purchase decisions, and the link between CPI and consumption, the paper seeks to add to the body of existing knowledge. The study will also look at how customers' chosen investment quantities for residential property in India are shaped by variables like attitude, social power, subjective norms, perceived behaviour control, location, surrounding environment, and legal paperwork and to further explore and analyse the numerous elements that influence customers' intention to purchase residential property, this study intends to add to the body of knowledge.

1.3 RESEARCH METHODOLOGY

The conducted study primarily revolved around an exhaustive review of previous literature. By thoroughly examining existing theories, models, and studies related to customer intentions in the Indian residential property market, the study aimed to develop a comprehensive conceptual framework. This framework outlined key factors influencing customers' intention to purchase, with each factor precisely defined, and their relationships elucidated. The operationalization of

variables was based on insights drawn from the literature, ensuring clarity in measurement. The study drew findings regarding the correlations between these aspects through a synthesis and analysis of the literature, theoretically advancing our knowledge of consumer behavior in the Indian real estate market. In addition, the study discussed the drawbacks and difficulties of depending solely on earlier research, providing industry stakeholders with useful takeaways. In the end, the study aimed to offer a solid basis for subsequent research by putting forth directions for additional investigation and research topics that might improve our understanding of the topic.

1.4 FACTORS INFLUENCING CUSTOMERS INTENTION TO PURCHASE RESIDENTIAL PROPERTY IN INDIA

A multitude of factors—financial, governmental, social, physical, environmental, pricing, product quality, location, financing possibilities, neighbourhood features, and demographics—have a significant impact on decisions made when purchasing a home. Together, they influence how potential homeowners decide what to buy, providing information that helps marketers adjust their tactics to suit a wide range of consumer tastes and developers select the best sites for their projects. Online home purchasing selections are also influenced by other factors like product variety, delivery speed, social media impact, privacy, and customer feedback. These components include cognitive aspects, individual requirements, situations, feelings, memories, subconscious effects, and overall goals (Deepak et al., 2018; Rashmi et al., 2018 and Jhun et al., 2021).

Financial Factor

Customers' intents to buy residential property are significantly influenced by financial factors, which account for a significant portion of their decision-making process. Important considerations for potential homeowners include mortgage interest rates, household income, home prices, and the ease of obtaining finance. The importance of finance availability is shown by the influence that government and bank strict lending requirements have on the choices made by real estate investors. The strong association observed between financial factors and buy intention is consistent with previous research conducted in Malaysia (Yoke et al., 2018). Financial considerations have been shown to have a significant impact on consumers' intents to buy residential real estate, especially in a study carried out in Bali, Indonesia and it also showed that logical factor has a substantial impact on buyer decisions is money, and potential buyers who have not yet purchased property in Bali indicate greater concern about this. The study highlights the need of taking into account both rational and irrational elements in the context of real estate buying behaviour, particularly challenging the popular assumption from classic financial theory that investors constantly act rationally. The study highlights the importance of psychological, emotional, intuitive, and evaluative aspects while making decisions, especially for individuals who plan to live in the property rather than those who are looking for financial prospects (Anastasia & Suwitro., 2015). Yogesh et al., (2018) emphasised that financial factors are given the highest consideration by residential property buyers when evaluating alternatives. Since buying real estate



involves taking out significant loans and paying premiums, financing is a crucial consideration for buyers. It does not, however, go into specifics about how customers' intentions to buy residential property are influenced by the financial issue (Tawfik et al., 2015).

Demographic Factor

Customers' intentions to invest in residential real estate are significantly influenced by demographic considerations. Understanding these demographic factors is essential in order to forecast how they will affect the market for residential real estate. varied generations have varied demands and preferences. For example, baby boomers prefer larger lots, whereas Generation Y is used to smaller lots or units with a medium density. Customers' intentions to buy residential property are influenced by a wide range of elements, such as income, capital worth, house ownership, comfort with variety, expectations of work-life balance, technical literacy, and career strategy. A thorough grasp of the dynamics affecting the residential real estate market requires an appreciation of the subtleties inherent in these demographic components (Richard et al., 2005) and demographic characteristics have a direct effect on consumers' choice factors, which in turn have a direct effect on purchase intention of residential property (Jose et al., 2020).

Location Factors

Location factor has the greatest impact on customers' intention to buy apartments (Phuong et al., 2020). Customers prefer locations close to workplaces, schools, city centres, and shopping malls for convenience in daily activities and Phuong et al., (2021), confirms that location is the most important element influencing consumers' plans to buy real estate and highlights the enormous impact that location has on customers' intentions to invest in real estate. Notable elements influencing this impact include being close to places of employment, marketplaces, retail establishments, educational institutions, major thoroughfares, and relationships with loved ones. Even the decisions of homebuyers are notably influenced by key location factors, including proximity to schools, main streets, and workplaces (Jie et al., 2018). The primary determinant shaping customers' decisions to purchase residential properties is the location, prioritized above factors such as price, quality, and corporate image (Rachmawati et al., 2019). However, Hei & Dastane, (2017) found a strong relationship between the financial, neighbourhood, and location factor, and consumers' decision making of residential property. The other two factors, namely features and demographic factors, have a weaker association. It was also discovered that gender, age, marital status, monthly income, and education level have a moderate impact on consumer decision making. Karimi et al. (2023) investigated how location-related factors affected housing market with a particular focus on unsold new homes. And discovered that location had a significant impact on the number of unsold homes.

Dwelling Characteristics

The attributes of a home, including living area, location, and atmosphere, all have a significant and favourable impact on buyers' intentions to buy residential real estate. When it comes

to purchasing real estate, buyers may easily evaluate these palpable characteristics. A study conducted in Kota Kinabalu highlighted the significance of housing attributes, such as size, length, and quality of construction, in influencing purchasing intentions. Customers' housing decisions were also found to be influenced by financial issues, including mortgage availability and house pricing. Additionally, it was found that the developer brand's reputation and image were significant predictors of purchase intention. When taken as a whole, these results highlight how important housing attributes are in determining consumers' propensity to purchase residential real estate (Julius et al., 2016). Customers' intention to purchase residential property is significantly influenced by factors such as construction quality, construction time, design, and the scale of the house. These considerations become focal points for customers as they contemplate buying a house (Phuong et al., 2020).

Neighbour Factors

Neighbourhood considerations become crucial variables in determining customers' intents to buy residential property. These include important factors like the standard of services and facilities, the area's overall liveability, safety and security measures, and its closeness to hospitals, schools, and shopping centres. The results strongly suggest that in order to meet the wants and preferences of prospective homeowners, real estate developers should take these neighbourhood factors into account when designing new developments (Nor et al., 2019). The distance from a church or mosque was identified to have a notable and positive correlation with house rental prices in the Accra metropolis of Ghana (Raymond, Darfo-Oduro., 2020). House prices are positively influenced by neighbourhood factors like adjacent ravines and household income (Teck et al., 2011). Shahidul (2012) explored the effects of different neighbourhood types, including gated-guarded neighbourhoods with landscaped compounds and freehold tenure neighbourhoods, on the values of residential properties.

Infrastructural Factor

When considering the acquisition of residential property, customers' decisions are greatly influenced by infrastructure concerns. One of the most important factors is the property's location; in particular, the accessibility of a house to amenities and popular locations is a major factor in influencing the preferences of potential purchasers (Syukor et al., 2016). Furthermore, buyers give careful thought to health and safety issues, assessing things like the quality of the air and water as well as the accessibility of medical facilities. Customers' intentions to invest in residential real estate are greatly influenced by the property's features, size, and structural quality, among other important criteria. Buyer decisions are greatly influenced by factors outside the physical boundaries of the property, such as the neighbourhood, local amenities, and ease of access to public transit (Omrane & Bag., 2022). Communication tools and legal documentation play a significant role in the decision-making process. In addition to boosting buyers' confidence in the property, the availability of appropriate legal papers and effective communication tools plays a significant role in influencing their decision to move forward with a purchase (Chia et al., 2016).



Additionally, prospective purchasers give careful consideration to the area's high-quality infrastructure development, which includes dependable public utilities, well-maintained roads, and easily accessible public places. This all-encompassing approach to infrastructure factors emphasizes how important they are to consumers' decisions to buy residential real estate as a whole. Developers and legislators are therefore urged to carefully integrate these factors into residential property design and planning in order to accommodate the various demands and inclinations of prospective purchasers in a constantly changing real estate market (Kabir et al., 2023)

Beliefs

Beliefs originating from many cultural and religious traditions have a significant impact on buyers' intents to buy residential real estate. This influence affects buyers' problem awareness and decision-making processes in relation to design, shape, alignment, size, location, and structure, among other important aspects of property considerations (Poologasingam & Perera., 2021). These superstitious beliefs form living spaces, house features, and even notions of luck or unluckiness related with locations and distances, greatly impacting the preferences and decisions of buyers. These beliefs also apply to financial decisions and developer brand selection, when perceptions of luck or unluck influence choices. Though they still have an influence on decision-making, younger generations—especially those in the Chinese community—show a discernible decline in this regard due to their more tolerant outlook. In order to create tactics that appeal to the requirements and preferences of their target market and promote a culturally sensitive approach to real estate marketing and development, developers and legislators must recognize and comprehend these superstitious beliefs (Keong et al., 2019). Ancient techniques like Feng Shui and Vastu Shastra are meant to bring balance and harmony into homes. Following Feng Shui concepts when purchasing a residential property might assist in making a wise and successful selection. A few basic guidelines to bear in mind while purchasing a home are, according to Feng Shui experts, keeping the place tidy and uncluttered, adding plants to every room, opting for a home with a curving entryway, and avoiding homes that are situated on hills, at the end of a cul-de-sac, or facing a "T" intersection. It's also critical to consider the property's external scenery, the community, and its surroundings. Positive energy enters the house through the entrance, also known as the gateway or mouth of Qi. Seeking guidance from a professional when attempting to purchase a home with Feng Shui is advised. (Engshuibalanz, 2023; Jennifer choo, 2022). Vastu Shastra, an ancient Indian science, guides the selection of residential properties based on principles aimed at creating harmony and balance. According to Vastu, a well-designed entryway serves as the mouth of positive energy, attracting good luck and fortune.

Service Quality

Customers' intents to buy residential property are significantly influenced by the level of service that developers provide. Consumers expect precise representation, knowledgeable communication, and consideration of their requirements and preferences at all times during the real estate transaction process. Customers' overall impression of the property is

greatly influenced by the perceived quality of the service, which in turn influences their choice to make a purchase (Omrane & Bag., 2022). When purchasing real estate, buyers give careful thought to a number of factors, including the developer's reputation, location, property pricing relative to market value, and future prospects. Interestingly, consumers base their opinions on past experiences with the billing system's dependability and service quality, and they are less satisfied when their expectations are not met (Islam et al 2022). High-quality service delivery must be developers' top priority in order to satisfy clients and build confidence. Developers can improve their sales success and draw in more clients by doing this in the cutthroat real estate market (Syukor et al., 2016).

Other Factors

Buying residential real estate in India involves a complex web of elements, including the property itself, its surroundings, and more general real estate investment considerations. Important factors that greatly influence customer purchasing intentions include the property's value, safety, security, and overall health (Omrane & Bag., 2022). Additionally, the property's opportunities, structural quality, and different physical characteristics—such as size, shape, alignment, design, and location—have a significant impact on how customers perceive and make decisions (Chia et al., 2016). Another significant element is the local surroundings, which includes the neighbourhood, amenities, and accessibility. A major factor influencing client decisions is the property's location. Relationships among financial aspects, location, and neighbourhood concerns highlight their significance in customers' decision-making when buying residential real estate (Lee & Ong., 2020). Furthermore, the relationship between consumers' purchase intents and preferred individual investment levels is investigated, taking into account a variety of variables including social power, attitude, location, perceived behaviour control, subjective norms, and socialization. The choice to buy residential property in India is a complex one, and those involved in the real estate sector need to understand these factors in order to develop strategies that effectively cater to the changing needs and preferences of prospective buyers and meet the ever-changing demands of the Indian real estate market (Abhang & Kumar., 2022).

PESTLE Analysis

In the dynamic landscape of the Indian residential real estate market, potential homebuyers' decisions are profoundly influenced by a multitude of factors that can be effectively analysed through a PESTLE framework. Here's a detailed exploration of these key determinants:

1. Political Factors

- Government policies wield a substantial impact, shaping the real estate climate and influencing property prices and investment attractiveness
- The overall political stability is a crucial factor, as uncertainties can impact the confidence of homebuyers and developers alike.

2. Economic Factors

- Economic indicators such as GDP growth, employment rates, and industrial development



play a pivotal role in driving property prices upward.

- b. Affordability, a function of inflation rates, interest rates, and the availability of home loans, significantly influences the decision-making process of potential homebuyers.

3. Social Factors

- a. Proximity to essential amenities like schools, hospitals, markets, and transportation hubs is pivotal, as it directly correlates with the desirability and demand for residential properties.
- b. The strength of social infrastructure, encompassing hospitals, grocery stores, and public transportation, acts as a catalyst in enhancing the overall value of a property.

4. Technological Factors

- a. Infrastructure development, including roads, highways, and public transportation, not only impacts accessibility but also contributes to the appreciation of property prices.
- b. The integration of modern amenities such as high-speed internet and smart home features significantly influences the attractiveness of residential properties.

5. Legal Factors

- a. Stringent adherence to legal processes, encompassing thorough documentation and due diligence, is imperative for instilling confidence in potential homebuyers.
- b. The presence of clear and comprehensive paperwork, such as title deeds and sale deeds, directly affects the perceived value and security associated with a property.

6. Environmental Factors

- a. The environmental footprint of a property, considering factors like location and nearby facilities, is pivotal in determining its market value.
- b. Properties embedded in pleasant environments with access to green spaces and other amenities often command higher prices due to increased desirability.

A nuanced understanding of these multifaceted factors empowers potential homebuyers to make well-informed decisions. By meticulously considering aspects like location, economic conditions, social infrastructure, technological advancements, legal frameworks, and environmental considerations, individuals can navigate the complex real estate landscape and gauge the potential value and returns associated with a residential property in India (Godrej Properties, 2023; Das & Datta., 2021; SLN Ventures, 2023).

1.5 DISCUSSION

This study looks at the variables that influence buyers' propensity to purchase residential properties in India, focusing on aspects pertaining to the homes themselves, the surrounding area, and investment-related issues. The results highlight the critical role that elements like the property's condition, value, safety, security, and location play in influencing consumers'

purchase intentions in the Indian real estate market. These findings are the culmination of a variety of investigations on customer purchasing intentions. The study also emphasizes the significance of the external environment as a significant predictor, which includes the neighbourhood, facilities, and accessibility. Investigating the relationship between consumer purchase intention (CPI) and real estate investment decisions, the study delves into the dynamics surrounding investments.

1.6 CONCLUSION

The choice to buy residential real estate in India is impacted by a wide range of issues, including investment considerations, environmental factors, and property-related factors. This study explores these important variables and how they affect consumers' decision-making, providing developers, legislators, and other real estate industry players with insightful information. Customers' decisions to buy residential real estate are largely influenced by the property itself, including its condition, worth, security, and safety. Additionally, customers' impressions and decisions are greatly influenced by the features, layout, and location of the property. Strong correlations have been shown between financial, neighbourhood, and location aspects and customers' decision-making, highlighting the surrounding environment—which includes the neighbourhood, facilities, and accessibility—as another significant element.

Understanding these factors and their potential impact on customers' intentions to purchase residential property empowers developers and policymakers to make informed decisions and tailor strategies to meet the evolving demands of the real estate market in India. This approach can lead to increased sales, enhanced customer satisfaction, and, ultimately, contribute to the growth and success of the real estate industry in the country.

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A REVIEW ARTICLE ON APEENASA AND ITS MANAGEMENT IN AYURVEDA

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ABSTRACT

Apeenasa is a condition in which voitaiated vata and kapha dosha casues nasaavaroddha with either shoshana or prakledana ,nasa dhoomayana and gandha rasa ajnanatha with some of the clinical features of vatakaphaja pratishaya.

KEYWORDS- *Apeenasa, Nasaroga , Rhinitis, sneezing*

INTRODUCTION

Apeenasa is clarified beneath the Nasaroga in Ayurvedic classics. Apeenasa may be a condition characterized by Anaha within the Nasa (nasalblockage), related with Shoshana (dryness) or Prakledana (stickynasaldischarge) with a feeling of smoke coming out of the nose and inability to perceive the smellor taste. It 'll too have other symptoms similar to that of Pratishyaya. The condition can be correlated to Chronic allergic rhinitis for better understanding according to modern science.

Rhinitis is the inflammation of the nasal mucus membrane. Recurrentattacks of acute rhinitis in the presence of predisposing factors leads to chronic rhinitis in which there is long standing inflammation of the nasal mucosa, often producing excessive mucus secretions.

Historical Review

The reference with respect to Apeenasa is not found in Vedic texts. But Nasa is described as one of the Indriya in Yajurveda, Atharvaveda and Bhagavadgeeta. The depiction of Apeenasa has been given in all the classical textswritten during Samhita period.

➤ Charaka has given the description of Apeenasa in 26th chapter (TrimarmeeyaChikitsaAdhyaya) of Chikitsasthana¹.

- In Susrutha Samhita, the disease is explained in 22nd chapter (Nasagataroga vijñaneeya) of Uttaratantra².
- Madhavakara has explained about Apeenasa in 58th (Nasaroganidana)chapter.
- Apeenasa is also explained in 4th chapter of Tritiya Khanda of Gadanigraha,
- Vangasena explained Apeenasa inNasarogadhikara chapter.
- The explanation is found in Bhavaprakasha Madhyama Khanda 65th chapter
- Yogaratnakara explained inNasarogadhikara³.
- Bhavaprakasha and Yogaratnakara have replaced Apeenasa with Peenasa in Which the clinical features are similar to Apeenasa. The commentator of Bhavaprakasha clearly explains that, Peenasa and Apeenasa can be used as synonymous.
- Chakrapanidatta has explained the Chikitsa of Apeenasa in NasarogaChikitsadhyaya⁴.
- The disease Apeenasa s mentioned in Ashtanga Hridaya uttaratantra 19thChapter⁵.
- In Astanga Sangraha description on Apeenasa is given in uttaratantra 23rdChapter⁶.
- The disease Apeenasa isn't specified in Kashyapa Samhita and Bhela Samhita.

Table No. 01. Classification of Nasa Roga.

Sl.	Nameofroga	C.S. ⁷	S.S. ⁸	Y.R. ⁹	Sha.sam. ¹⁰	A.H ¹¹ & A.S ¹²
01.	Apeenasa	+	+	Peenasa	+	+
02.	Puti nasya	+	+	+	Puti nasa	Putinasa
03.	Nasapaka	+	+	+	Ghranapaka	Ghranapaka
04.	Shonitapitta	+	+	4types	–	---
05.	Pooyashonita	+	+	+	Puti rakta	Puyarakta
06.	Kshavathu	+	+	+	Kshava	+
07.	Bhramshathu	+	+	+	+	---
08.	Dipta	+	+	Dipti	Diptaka	Dipti
09.	Nasanaha	+	+	Pratinaha	Nasanaha	+
10.	Parisrava	+	+	+	Puyasrava	Nasasrava
11.	Nasashosha	+	+	+	+	+
12.	Nasarsha	+	4types	4types	+	+
13.	Nasashopha	+	4types	4types	--	--
14.	Nasarbuda	+	7types	4types	+	+
15.	Pratishyaya	+	5types	5types	5types	5types



16.	Dushtapeenasa	-	-	-	+	+
17.	Putaka	-	-	-	-	+
	Total no	31	31	34	18	18

Nidana Panchaka

The detailed study of Nidana Panchaka is helpful in understanding the disease and for planning the treatment.

Nidana

The term Nidana refers to all the factors which cause initiation and progress of the disease. In the treatment of a disease exact

understanding of Nidana and avoidance of such nidanas constitute an important role. Reference regarding the specific Nidana of Apeenasa has not been mentioned in the classics; hence the causative factors mentioned for Samanya Nasaroga can be considered for the same.

Table No. 02. Aharaja Nidana of Apeenasa

Sl.	Aharaja (dietary)	C.S.	S.S.	Y.R.	A.H&A.S
01.	Ajeerna	+	-	-	--
02.	Atyambupana		-	+	+
03.	Sheeta Ambu pana	+	-	-	--
04.	Peetana Anyena Varina	-	-	+	+

Table No. 03. Viharaja Nidana of Apeenasa

SL.	Viharaja (behavioural)	C.S.	S.S.	Y.R.	A.H&A.S
01.	Ati Nariprasanga	+	+	-	--
02.	Ati Swapna	+	-	+	+
03.	Ratri Jagarana	+	-	+	+
04.	Mutra Pureesha Vegadharana	+	+	+	--
05.	Chardi Nigraha	-	-	+	+
06.	Bashpa Nigraha	-	-	+	+
07.	Bashpa	+	-	-	--
08.	Atapa Sevana	-	+	-	--
09.	Rajah Sevana	+	+	+	+
10.	Dhuma Sevana	+	+	-	--
11.	Shitam ati pratapa		+	-	--
12.	Avashyaya	+	-	+	+
13.	Ati jala krida	-	-	-	--
14.	Ati Bhashana	+	-	+	+
15.	Shirasobhitapa	+	+	-	--
16.	Anilasevana	-	-	+	+
17.	Neecha Upadhana	-	-	+	+
18.	Atyuccha Upadhana	-	-	+	+

Table No. 04. Manasika Nidana of Apeenasa

SL.	Manasika	C.S.	S.S.	Y.R.	A.H&A.S
01.	Ati Krodha	+	-	-	--

Table No. 05. Kalaja Nidana of Apeenasa.

SL.	Kalaja	C.S.	S.S.	Y.R.	A.H&A.S
01.	Ritu Viparyaya	+	-	-	--

Atyambu Pana, Atisheeta Jalapana, Ambukrida, Avashyaya causes increase in Sheeta Guna. Diwaswapna causes increase in Snigdha Guna and exposure to Dhooma causes immediate increase in Kapha Dosha¹³. These factors act as Kapha Prakopaka Nidana and increase Kleda in the Srotas. Atyambu Pana also causes Amavridhi which in turn leads Mandagni and Ajeerna.

Sandharana causes Viloma Gati of Vata. Ratri Jagarana and Atibhashana increase Rukshal Guna. Due to Atisheeta there

will be Sheeta Guna Vriddhi hence leading to Vata Prakopa. Vyavaya causes Dhatu and Indriya Kshaya, thus causing Vata Prakopa due to which there will be Parushata, Sankocha, and Shosha in the Srotas.

The Nidanas like Atyambupana, Ajeerna, Ati Sheeta, Neecha and Atyuccha Upadhana, Vegadharana etc acts as Utpadaka Hetu and leads to accumulation of Vata and Kapha Doshain the body. Raja, Peetana Anyena Varina, Avashyaya etc. acts as Vyanjaka Hetu and triggers the disease



Nidanarthakara Roga

Acharya Charaka in the context of Prathishyaya has stated that, in the presence of Prathishyaya if the person continues Ahita Ahara, it causes Apeenasa¹⁴. In this context, Prathishyaya is considered as Nidanarthakara Roga for Apeenasa.

The process of manifestation of disease is called Samprapti (pathogenesis). It includes various stages as disease progresses. The detailed knowledge of pathogenesis is very necessary to find the extent of Dosha and Dushya vitiation, involvement of Avayava, Srotas and prognosis of the disease.

Samprapti of Apeenasa can be understood by studying it under two headings,

- Samanya Samprapti of Nasaroga
- Vishista Samprapti of Apeenasa

Samanya Samprapti of Nasaroga

Due to the Nidana Sevana the Doshas initiated by the Prakopa of Vata Dosha causes various Nasarogas.

Vishista Samprapti of Apeenasa

According to Susrutha, Vata and Kapha attain Prakopa and leads to Apeenasa¹⁵. Acharya Gadadhara's opinion on Apeenasa as compiled by Vijaya Rakshita is apeenasa is a condition due to vitiation of Pitta and Kapha.

Acharya Susrutha, Madhavakara, Yogaratnakara and Bhavaprakasha have followed Charaka's view.

Sanchaya Avastha

Excessive use of Dosha Prakopaka Nidana causes accumulation of Dosha in its own place. This is known as Chayavastha. The indulgence in various Nidanas mentioned earlier lead to the accumulation of Vata and Kapha Dosha.

Some specific Nidanas like exposure to Raja, Dhooma etc may cause Khavaigunya in the Nasa which may become the site of localization of Prakopita Dosha in the later stage of Samprapti.

Prakopa Avastha

Further indulgence in the Nidana leads to the Prakopa of Vata and Kapha Dosha. Here, Vata is vitiated with its Ruksha, Sheeta, Khara properties and Kapha gets vitiated with its Snigdha, Sheeta, shlakshna, Mritsna properties.

Prasara Avastha

In this stage Prakopita Dosha is carried all over the body by Vata.

Sthanasamshraya Avastha

In this stage, the Prakopita Dosha gets lodged at the site of Khavaigunya, which is caused by the specific Nidanas. In Apeenasa, as Khavaigunya occurs in the Nasa, the vitiated Vata and Kapha gets localized in this site. The premonitory symptoms of the disease will be seen in this stage.

Vyakti Avastha

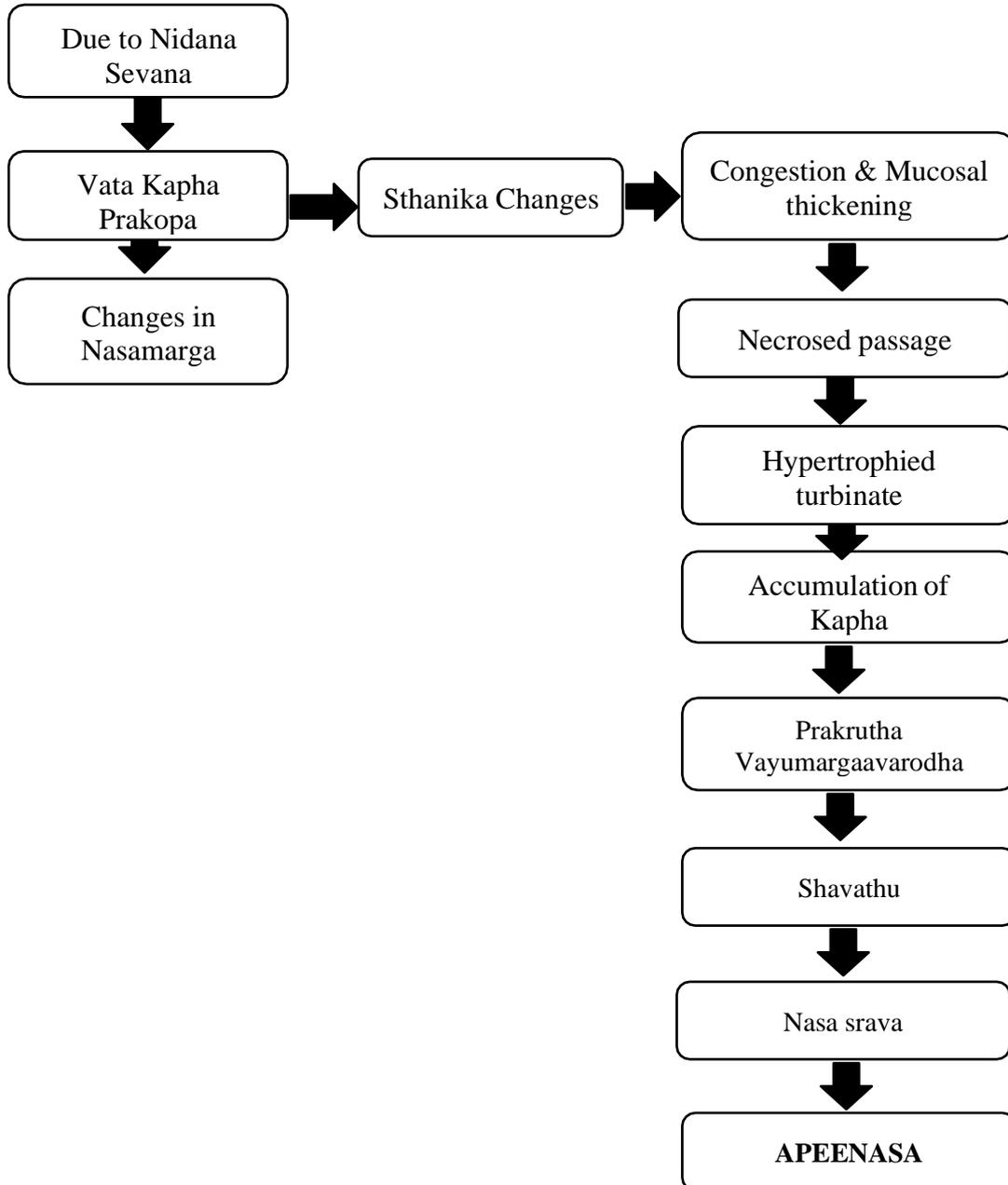
The complete manifestation of the signs and symptoms of the disease is seen in this stage. Apeenasa manifest completely in this stage.

Bheda Avastha

If the disease is neglected in this stage, it becomes chronic and may lead to various complications.

Samprapthi of Apeenasa

Figure No. 01.



Samprapti Ghataka

- **Dosha:** There is difference of opinion in Dosha Pradhanatwa of Apeenasa.
- ✓ Vata and Kapha – Charaka
- ✓ Vata and Kapha – Susruta
- ✓ Kapha, Vata and Pitta – Dalhana
- ✓ Kapha and Vata – MadhavaNidana
- Dushya : Rasa
- Adhistana: Nasa
- Vyakta sthana: Nasa
- Rogamarga: Madhyama



Poorvarupa

Purvarupa are the premonitory symptoms of the disease which are observed before the complete manifestation of the disease. No reference is available regarding Poorva Rupa of Apeenasa in the classics. But in the context of Prathishyaya, Acharya Charaka explains that, if Prathishyaya is neglected, it will lead to Apeenasa. Hence, we can consider the Purvarupa of Prathishyaya here.

Acharya Vagbhata, Charaka & Kashyapa have not mentioned the Purvarupa of Prathishyaya. Acharya Sushruta and Videha have mentioned Purvarupa of the Prathishyaya which are as follows –

Table No. 06. Purvarupa of Prathishyaya / Apeenasa.

SL.	Purvarupa of Prathishyaya/Apeenasa	S.S.	V.S	Y.R.
01.	Shirogurutva (Heaviness of the head)	–	+	+
02.	Kshavathu (Sneezing)	+	+	+
03.	Angamarda (Bodyache)	+	–	+
04.	Parihristaromata (Horripilation)	+	–	+
05.	Stambha (Stiffness in nose)	+	–	+
06.	Nasa Dhumrayana	–	+	–
07.	Taluvidarana	–	+	–
08.	Kanthodwamsa	–	+	–
09.	Mukhasrava	–	+	–
10.	Manthana	–	+	–
11.	Shiropurnata	–	–	+

Rupa

Rupa of a disease appears at the stage of Vyaktavastha.

Lakshanas of Apeenas according to various Acharyas are given in the table:

Table No. 07. Rupa of Apeenasa.

SL.	Rupa	C.S.	S.S.	M.N.	A.H&A.S
01.	Anaha	+	+	+	--
02.	Nasadhoomayana	+	+	+	--
03.	Prakledana	+	+	+	+
04.	Shoshana	+	+	+	--
05.	Gandha Ajnanata	+	+	+	--
06.	Rasa Ajnanata	+	+	+	--
07.	Vatakaphaja Prathishyayokta lakshana	+	+	+	--
08.	Gurguraswasa				+
09.	Peenasadika Vedana				+
10.	Singanaka				+
11.	Kandu				
12.	Daha				
13.	Paka				

Almost all the Acharyas have explained that, Apeenasa is a condition where there will be Anaha in the nasa (nasal obstruction), associated with Shoshana (dryness) or Prakledana (sticky nasal discharge) with a feeling as though warm smoke is coming out of it, and inability to perceive the smell or taste of materials. It will also have other symptoms similar to that of Prathishyaya.

Dalhana commenting on the above verse mentions that, Nasanaha occurs due to the Shoshana of Kapha by Pitta; where as Bhavaprakasha considers it as the Shoshana of Kapha by Shwasa. Vijayarakshita, in Madhukosha Commentary of Madhava Nidana, explains the meaning of Nasanaha as Avabaddhatha. According to him, Vata does the Shoshana of

Kapha leading to Nasanaha.

As per Vijayarakshita, Dhoomayana means experiencing “Santapa” and Dalhana commenting on Dhoomanyana considers Pitta is responsible for Dhoomayana.

Further Dalhana explains the meaning of Prakledana as Ardrabhava which is due to Kapha and Nasashushkata due to Pitta.

Vijayarakshita, commenting on Rasa Ajnanatha, explains that, the Dosha which is responsible for the commencement of Nasaroga causes the Dushti of Rasana and due to this, the perception of taste is affected. According to him, as there is



Avabaddhata, the person cannot perceive the smell. Further he explains that, ‘Prathishyaya Samana Linga’ can be considered as VataKaphaja Prathishyaya Lakshana.

The clinical features of Vataja Prathishyaya are Nasavarodha, Tanu Srava, Shosha in the Gala, Talu and Oshta, Toda in the Shankha Pradesha and the features of KaphajaPrathishyaya are Sheeta and Shwetha Varnayukta Kapha Srava in large quantity, Shirogouravata, Shuklavabhasata, Shunakshi, and Kandu in the Kanta, Talu, Oshta and Shira.

Upashaya And Anupashaya

There is no reference regarding Upashaya and Anupashaya of Apeenasa.

Vyavachedaka Nidana

There are a number of other conditions, which can produce symptoms similar to those of Apeenasa, which need to be considered in the differential diagnosis. Few conditions among them are as follows –

Table No. 08. Vyavachedaka Nidana of Apeenasa.

Sl.	Apeenasa	Vataja prathishyaya	Kaphaja prathishyaya	Dushta prathishyaya
01.	Nasanaha	Anaddha, Pihita Nasa	–	Nasanaha
02.	Shoshana in the Nasa	Gala, Talu, Oshta Shosha	–	–
03.	Prakledana	Tanu Srava	Sheeta, Panduvarnayukta Bahu Kapha Srava	Prakledana
04.	Dhoomayana	–	–	–
05.	Gandha Ajnanata	–	–	Gandha rasa Ajnanata
06.	Rasa Ajnanata	–	–	–
07.	Shanka Toda	Shanka Toda	–	–
08.	Kshavatu	Kshavatu	–	–
09.	Swaropaghata	Swaropaghata	–	–
10.	Vaktravairasya	Vaktravairasya	–	–
11.	Kandu in the Kanta, Talu, Oshta and Shiras	–	Kandu in the Kanta, Talu, Osha and Shiras	–
12.	Shiro Gourava	–	Shiro Gourava	–
13.	–	–	–	Durgandhita Shwasa

Upadrava Of Apeenasa

The references regarding the Upadrava of Apeenasa are not available in the classics. But generally Dushta Prathishyaya and Shirorogas are said to be the Upadravas of Nasarogas.

Chikitsa Vivechana

Ahara

Various dietary articles are advocated in Apeenasa –

- Intake of Teekshna, Alpa and Laghu Ahara.
- Intake of Ushna Jala.
- In Apeenasa of recent onset, the combination of Dadhi with Maricha and Guda is said to be beneficial and also food preparation with Gritha, Anna and Godhuma is to be given.
- After intake of food prepared with Vidanga and Godhuma the person suffering from Peenasa should drink Sheetala Jala before going to sleep.
- Ksheera boiled along with Panchamula is given to drink.
- Yusha prepared with Gritha, Guda and Vidanga is used.

Vihara

Patient is advised to stay in Nivatagraha as Vihara which has been advocated in Samanya Nasaroga Chikitsa.

Chikitsa

- Vamana and Virechana are followed after Snehana and Swedana in the patients of Apeenasa.
- Intake of Guda & Maricha along with Dadhi is an effective measure in Apeenasa
- Dhoomapana is to be advised by considering the Dhoomapana Kala.
- Dhooma and Avapida Nasya are advised with Katu Rasa Dravya
- Avapida Nasya is administered with Hingu, Trikatu, Indrayava, Sveta Punarnava and Laksa, seeds of Surabhi, Katphala, Vaca, Kusta, Shigru and Vidanga.
- Sarshapa Taila cooked with above drugs along with cow’s urine is also used for Nasya.
- Nasya is administered with Taila prepared out of Haridra, daruharidra, murva, pippali, jatipatra and danti.
- Kalinga, Hingu, Maricha, Laksa, Tulasi, Katphala,



- Vaca, Kusta, Shigru and Vidangaalong with Cow's urine and Sarshapa taila is used for Nasya and the same can also be used as Avapida Nasya.
- Katphala, Pushkaramula, Srngi, Vyosha, Dhanvayasa and Karavi are powdered and taken along with Adraka Swarasa or the Kashaya of these drugs can be used in Peenasa.
 - Surasadi thaila Nasya -oil prepared with Surasa, Vyosha, Kusta, Katphala, Vidanga & Laksha and Sarshapa Thaila
 - Vyoshadi Churna – Oil cooked with Vyaghri, Danti, Vacha, Sigru, Surasa, Trikatu and Saindhava is put into the nose.
 - Vyoshadi Vati – Trikatu, Chitraka, Talisa, Tinthidika, Amlavetasa, Chavya, Ajaji are taken in equal quantity, Twak, Ela, Patra is taken in 1/4th part each. This Churna and added with Purana Guda and Vati is prepared. This cures Peenasa Roga.

- Chitraka and Haritaka are taken in equal quantity and administered in the form of Churna or Kwatha.
- **Patadi Taila** – The Kalka of Pata, Haridra, Daruharidra, Murva, Pippali and Jati Pallavais boiled along with Taila.
- Shadbindu Ghritha – Bhringaraja Lavanga, Madhuka, Kusta and Nagara are boiled along with Goghrittha. This cures the Peenasa Roga.
- Kalingadi Avapida – Kalinga, Hingu, Maricha, Laksha Swarasa, Katphala, Kushta, Shigru, Vidanga are used for Avapida Nasya.
- **Pathya and Apathya :**
- Various dietary regimens, conducts, medicaments and the treatment modalities which are Patya (helpful) and Apatya (hazardous) for the patient suffering with Nasaroga are listed below.

Table No. 09. Pathyapathya for Nasaroga / Apeenasa.

SL.	Pathya		Apathya	
01.	Aharaja	Upacharaja	Aharaja	Viharaja
02.	Purana Yava	Snehana	Drava ahara	Snana
03.	Purana Shali	Swedana		Krodha
04.	Kulatta Yusha	Shiroabhyanga		Mala avarodha
05.	Mudga yusha			Mutra avarodha
06.	Gramyamamsarasa			Vata avarodha
07.	Jangala mamsarasa			Sleeping on floor
08.	Vartaka			
09.	Kulatha			
10.	Shigru			
11.	Karkoti			
12.	Bala mulaka			
13.	Lashuna			
14.	Dadhi			
15.	Taptambu			
16.	Varuni			
17.	Trikatu			
18.	Katu, Amla, Lavana Rasayukta, Snigdha, Ushna and Laghu Bhojana			

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JOURNEY IN HERITAGE LANGUAGE PRESERVATION: VOICES OF THE KAGAN SPEAKERS

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ABSTRACT

The emergence and embracement of immigrant languages threaten indigenous languages to be neglected resulting to become extinct. This qualitative study aimed to gather the oral literature and analyze the morphosemantic features of the Kagan language in Hagonoy, Davao del Sur to help preserve the language and the culture of the tribe which has gradually vanished because of assimilation with people of different culture and language. Kagan elders whose ages ranging from 46 to 92 years old were the informants, with nine assigned for the FGD and 14 for the IDI. Results revealed that Kagan's preserved oral literature consists of prayer, lyric poetry, and poem. It also divulged that Kagan language is rich of distinct characteristics in terms of its morphology and semantics. The retrieved oral literatures' morphological features include affixes, verb tenses, pronouns, descriptive adjectives, adverbs, and conjunctions. The semantic features are the deictic expressions, denotative words, connotative words, symbols, synonymy, antonymy, and dialectal words. Further, results of the study would provide essential information on the morphosemantic features which convey the existence of an ethnolinguistic group that bears its distinct cultural heritage.

KEYWORDS: Education, Applied Linguistics, Kagan language, phenomenology, morphosemantic features, Philippines.

INTRODUCTION

Language determines one's culture, history, and identity. It is used to claim the national or local identity and subsequently forms members in the social group and participants in its culture. The onset of modernized and industrialized world welcomes immigrant languages that risk the status of the minority languages (Allardt, 1979) creating a potential of the dominant language to devour smaller languages around the world (Molina, 2012). This made many linguists to predict that by the next century, about half of the world's five or six thousand languages particularly the minority languages will be extinct (Nettle & Romaine, 2000).

In the United States, Cho (2015) reported that there is a decline of the heritage language of the Spanish-speaking high school students in Miami, Florida as they move through school because of constant interaction of these children of immigrants with English speaking children. The same report on the study of Nguyen, Shin, and Krashen (2001) that a similar decline was found among Vietnamese-speaking children in the United States in elementary and middle school.

Meanwhile, in the study of Headland (2003), 30 endangered languages in the Philippines were noted; two were already identified extinct – the Agta, Dicamay and the Agta, Villa Viciosa expounded in his study in 2010. Like the Kagan tribe, there is a dearth of recorded collection of Kagan cultures particularly its oral literatures and language features that if not saved may lead to its language death signifying the loss of the unwritten oral literatures. In addition, the report of Eberhard, Simons, and Fennig (2019) states that Kagan language is in its threatened status because it is already losing its users leaving about 500 speakers. The Kagan population is not determined as

they are counted together with the Kalagans, which however, according to the ethnologue and the report of Asa and Dag Wendel (2002), the two are of different tribes. Hence, no exact and separate statistical file of the Kagans.

Marfil (2014) reported that Kalagan (or Kagan) tribes used to be a single tribe. However, they were later divided into two. Half of the group followed the Muslim faith, while the other half retained their traditional faith. The Kalagans are described as an Austronesian dialect and a group that lives in the uplands inland from the western coast of the Davao Gulf in Mindanao particularly in Davao del Sur, southwest of Davao City inland along coast, Compostela Valley, and Davao Oriental provinces. Kalagan dialects are Isamal dialect in Samal Island; Western dialect in Davao Oriental Province; Lupon along the gulf down to Hagonoy and Guihing near Digos City; and Eastern dialect mainly Davao Oriental Province (Hays, 2015).

The Barangay Leling in Hagonoy, a municipality in Davao del Sur was considered as the most solid Kagan community in around 1980's. As to the exact figure of the total Kagan population, it was difficult to determine since the data from the National Census and Statistics Office (NCSO) in 1980, did not differentiate between Muslim-Kalagan and Kagan-Kalagan (Asa & Dag Wendel, 2002).

The Kagan tribe as shown in the result of the study of Yu (2017) has also its oral literature preserved, however, limited. They have the "balyan", an old folk expert in rituals, who is authorized to chant the folk epic. The folk epics they have preserved and documented expressed that the beliefs and values possessed by their tribesmen are deeply rooted from their ancestor's experiences which were passed on orally from generations to generations. The oral literature of this tribal



group serves as evidence that the Kagan ancestral language and cultural heritage is still in its existence. Nevertheless, the closeness to and daily interaction with the dominant Cebuano language speakers, Asa and Dag Wendell (2002) argued that Kagan speakers would either switch to Cebuano or mix languages thus, eradicating the Kagan language.

Moreover, since oral literature determines distinction of one's language and culture from the other, it can be analyzed through its linguistic and non-linguistic attributes. In the stylistics of oral literature, the artist is closely observed in his "manners of expression" in terms of diction, sentence patterns, sound patterns, and paralinguistic accompaniments. This can be evident in the use of such figures of speech as personification, symbolism, imagery, metaphor, allusion, etc. all of which give oral literature its beauty and aesthetic value (Emezue, 2018). Meanwhile, the language in oral literature can also be dealt by its morpho-semantic analysis as used by Dorais (2016) and focusing on the verbs as lexical category of the Edo language by Omoregbe and Aigbedo (2015). Before Omoregbe and Aigbedo delved into the semantic classification (function) of verbs in the language, they look first at the morphological compositions (form) of the different verbs.

Further to say, it may not yet a language extinction on the Kagan language because there are still Kagans who speak their language, but with the Cebuano speakers in attendance and a failure to preserve this threatened language through documenting their oral literature, this indigenous language may come to its saddened fate. Asa and Dag Wendell (2002) argued that the closeness to and daily interaction with the Cebuano speakers, Kagans would either switch to Cebuano or mix languages thus, eradicating the Kagan language.

This phenomenological investigation attempted to unveil the successes and struggles of the Kagan speakers in their heritage language transmission and preservation through recording their oral literatures. This study also archived the oral literatures and its linguistic features which could be the source for MTB-MLE materials for Kagan learners.

RESEARCH QUESTIONS

1. What are the existing oral literature of the Kagans?
2. What are the linguistic features of Kagan oral literature?

METHODOLOGY

This study used qualitative research to examine the path of the Kagan elders in archiving their oral literature and analyzing its morphosemantics to ward off ethnic extinction. Purposively chosen were the 23 Kagan elders, 14 of which were subjected to the in-depth interview (IDI) and nine to the focus group discussion (FGD). Creswell (2013) conforms that in the phenomenological research 5 to 25 individuals who have all experienced the phenomenon are enough number to have the saturation of data. The following are the inclusion criteria: Kagan elders must be aged 50 and above whose first language is Kagan; elders may be male or female; they must be born with and raised by both Kagan parents who have not intermarried with other tribal individual; and they may be educated, professionals, or never have been in school. However, Kagan speakers age below 50 years old were excluded in this study as they are believed to have limited information on the historical information of Kagan culture and language.

The researcher sought approval from the National Commission of Indigenous Peoples (NCIP) to be presented to the Office of the IP Mandatory Representative, the local office taking charge of the minority groups in the area. The Tribal chieftains were used as gatekeepers to reach out the participants of the study. The informed consent must be obtained informing of the rights of the participants. They were also told that they may opt to decline in the middle of the study if they felt uncomfortable already. As soon as all the necessary processes were done, interview proper and note taking on the Kagan oral literature as evidence of language preservation immediately followed.

Aside from the IDI and FGD that were used to gather the corpora for this research, the existing oral literature documented during the interview and the archived eight written literatures were also the sources to substantiate in analyzing the morphosemantics of the Kagan language. All recorded responses were transcribed, translated and compared, coded into categories, grouped and organized to extract the essential themes. The analyzed linguistic features were validated by an expert Kagan speaker who could understand English. Before finalizing the full manuscripts, a presentation to the community was conducted and attended by the Kagan leaders and elders and a representative from the NCIP Office for the purpose of validation.



RESULTS AND DISCUSSION

Table 1
The Existing Oral Literature of the Kagan

Existing Oral Literature	Title
Prayer	Ama Nami (Our Father) Paningayo (Prayer)
Poem	Pagpuno sa Banwa Yan (In the Beginning of the Earth) Awon Tahas ni Moises (The Mission of Moses)
Lyric Poetry	Pagdanga (Game) <i>Topic: Courtship</i> Pagdanga (Game) <i>Topic: During Wake</i>
Folk Tales	Si Tilanduk aw Busaw (Tilanduk and the Monster) Si Tongtong aw Datu ay Banwa Lanip Ga (Tongtong and the Datu of Lanip Ga) Ya Pagtanam na Duwa Mannanap Magtagauk asta Umpu (The Battle between the Two Animals Magtagauk and Umpu) Ya Pagdiyandi na Kagan aw Buwaya (The Blood Compact of the Kagan and the Crocodile) Si Mollog aw Kura Nan (Mollog and His Horse) Ya Datu aw Biya ay Banwa Magagong (The Datu and the Princess in Magagong)
Fables	Ya Kasampetanan na Ube aw Kalibangbang (The Story of the Monkey and the Butterfly) Ya Lawan aw Agtuk (The Lawaan and the Black Ant)

Table 1 presents the gathered oral literatures of the Kagan in Hagonoy, Davao del Sur of which six oral literatures are narrated by the key informants that include two prayers, two lyric poetry, and two poems. However, due to the limited preserved oral literatures from them and restricted words from the pieces, eight documented written literary pieces that include the six folktales and two fables are included to substantiate the study on the morphosemantics of the language.

Prayer

Ama Nami is a memorized prayer expressing that Kagans are believer of God. The acknowledgement and the passing on of this old prayer to the young generation signifies that the remaining Kagans are Christians but retained some of their old beliefs like ritual. The prayer describes that Kagans are submissive to God or to Timanem or Magbabaya and that He is so powerful that he can provide all their needs as expressed in the line: *Ya kanan nami sa lahat na allaw, iyatag kanami arun na allaw* Give us this day our daily food (PR1L8).

Poem

The poems reflect that Kagans have their belief on the words of God. *Pagpuno sa Banwa yan* (In the Beginning) describes the creation particularly of the first man and woman and how the sin came to earth. The symbols signify that human beings were created by God and the use of the *gusok* (ribs) speaks the submission of a woman to man and the *dawon* (leaves) suggests realization of the presence of sin. The poem expresses that Kagans acknowledge their Timanem as the creator of everything. On the other hand, the poem *Awon Tahas ni Moises* (The Mission of Moses) is expressing the mood of anger through the use of the descriptive words like *dakwa karaman* (big anger), *miraman* (angry), and *mingkamatay* (died).

Lyric Poetry

Pagdanga is a Kagan term for game. As experienced by the informants during their younger years, every time there was a bereaved family because of the death of a family member, neighbors would visit the family to give their condolences and comfort. One way of comforting the family was to do a *pagdanga* in a form of verse or “*berso-berso*” (as others called it) which issues could be about death or about love. Sometimes the game was as a chance of a man to court and win the heart of a lady. This game was usually done during wake. Kagan believe that death brings grief to the family members because nobody knows where the soul of the dead would go.

Folktales

Si Tilanduk aw Busaw is a folktale that talks about the determination of a boy named Tilanduk to avenge the *busaw* (monster) who orphaned him. The war efforts of Tilanduk describe the characteristics of the Kagan on how they deal with their enemies that they will never cease in avenging not until they could defeat their enemy and obtain their victory. Moreover, the words *sinampan* (*jar*), and *agung* (*tribal musical instrument*) mentioned in the folktale articulate the objects used in the olden times by the Kagans giving additional distinctions to their identity.

Si Tongtong aw Datu ay Banwa Lanip Ga is another folktale that speaks about having a reward if one shows kindness to others and to the nature. The words *langgam* (*bird*), *buntud* (*mountain*), *mannanap* (*wild animals*), *isda* (*fish*) suggest that because Kagans had only few neighbors in the olden times, they only interacted with the nature around them. Further, the words *kamagi* (*gold necklace*), and *mutiya* (*pearls*) speak of the richness of the place in natural resources, while the *kubaw* (*turban*), and *pamukan* (*tribal belt*) suggest that the Kagans use



the objects as their body accessories giving the tribe a unique appearance from the other tribes.

Another folktale is the *Ya Pagtanam na Duwa Mannanap Magtagauk asta Umpu* that tells about the fight of the two big snakes that was witnessed by a *mangayaw* (hunter). The use of *mangayaw*, *babuy iyas* (wild pig) and *dilek* (spear) in the story signifies that hunting is one of the Kagan's survival activity of long ago.

Ya Pagdiyandi na Kagan aw Buwaya is another folktale using the third person point of view that describes the strength and the bravery of the Kagans in combatting any enemy, even wild animals, they may encounter. There are many symbols used in the story like crocodile, princess, datu, and blood compact that speak of the nature of the tribe. It also defines the Kagan's place – Padada and Balutakay in Hagonoy, Davao del Sur – that once were surrounded with rivers infested by crocodiles. In the story, the *biya* (princess) and the only child of a Datu in Padada is devoured by a crocodile as she bathes in the river.

Si Mollog aw Kura nan is another ancient story that speaks of a child of a slave who desires to marry a *biya* (princess), a daughter of a datu. It also conveys the status gap between a slave and a datu in the olden times among the Kagans. Mollog as a slave has his thin horse while the Datu has hundreds of horses.

Fables

Ya Kasampetanan na Ube aw Kalibangbang is a literary piece that showcases the fight between the arrogant *ube* (monkey) and the gentle *kalibangbang* (butterfly). The use of *marayig ube* (many monkeys), *kalibangbang*, and *dagat* (sea) reflects that their ancestors were living in the forest and surrounded with waters.

The use of the butterfly as the protagonist in the story signifies the characteristic of the Kagans. Similar with the butterfly, Kagans are not trouble-making tribe. But if they are challenged and disturbed by enemies, they will never refuse and they will really fight back.

The final literature is also a fable entitled *Ya Lawan aw Agtuk* that talks about the consequence of being proud. Pride will bring one to destruction. The vivid arrogant character of the *lawan* signifies the other tribes while the humble ant symbolizes the Kagan clan. This is how other tribes regard themselves comparing to other groups. It may be a good attribute for one's group putting pride and prestige, but if it is not appropriately used, it will dispel them. The same with the other tribal groups, Kagan people has also the pride of their ancestry yet humble in preserving their reputation.

Table 2.1
Morphological Features of Oral Kagan Literature on Affixation and Verb Tense

Prefix	Root Word	Past Tense	Present Tense	Future Tense
<i>pig-</i>	patay dakep	Pig+patay = killed Pig+dakep = caught		
<i>mi-</i>	dugdug ari	Mi+dugdug = broke Mi+ari = cut		
<i>mika-</i>	demdem dengeg	Mika+demdem= thought Mika+dengeg = heard		
<i>mig-</i>	lawung tanam		Mig+lawung =saying mig+tanam =fighting	
<i>ipa-</i>	ug de			Ipa+ug = will throw Ipa+de = will bring
<i>mag-</i>	agi sugbu			mag+agi = will pass by mag+sugbu = will take a bath
Infix	Root Word	Past Tense	Present Tense	Future Tense
<i>-im</i>	layug sugaw	L+im+ayug = flew S+im+ugaw = cried		
<i>-um</i>	luwa dateng			L+um+uwa = will come out dumateng = will arrive, will reach
Circumfix	Root Word	Past Tense	Present Tense	Future Tense
<i>pag – an</i>	kallek ngan	Pag+kallek+an = feared Pag+ngan+an = named		
<i>ki – an</i>	agi ubad	Ki+agi+an = encountered Ki+ubad+an = untied, released		



It is presented in Table 2.1 the morphological analysis of the Kagan language on the affixation and the verb tense found in the gathered oral literature. Parallel to its affixation is the verb tense. The affixation that signal verbs and tenses includes prefix, infix, and circumfix. The suffix is not discussed in this table since it does not indicate action verbs, rather, a noun marker. The fundamental characteristic in the verb system of the Kagan language is that it consists of different affixes.

The common prefixes are [pig-], [mika-], [mi-], [mig-], [ipa-], [mag-]. The prefixes [pig-], [mika-], and [mi-] indicate actions that are done in the past. Examples of these are the *pig-* in the words *pig + patay* (killed) and *pig + kita* (saw). The prefix [mi-] also signals past action like *mi + dugdug* (broke). Another common prefix is the [mig-] which is used to indicate continuous action in the present time. This can be seen in the example *mig + lawung* (“(present) be” verb + saying). Moreover, both prefixes [ipa-] and [mag-] are used to indicate futurity of the action as noticed in the examples *ipa + ug* (will throw) and *mag + agi* (will pass by).

Another affixation in the Kagan language is the infix which is the attachment of bound morphemes in the middle of the root word. The common infixes are [-im-] and [-um-]. Both are used for consonant initials of the root words. On one hand, the [-im-] is used to tell past action as in the example *-im- + layug = limayug* (flew). On the other hand, the infix [-um-] signals futurity of the action like the *-um- + luwa = lumuwa* (will come out).

The circumfix is another affixation found in the Kagan language. They are the [pag-an] and [ki-an]. Both circumfixes suggest actions done in the past. In the example *pag + kallek + an = pagkallekan* which means *feared*, the action verb is not only suggesting past action but also indicating verb in the passive voice. However, it is not in the circumfix [ki-an] as being used in the words *ki + agi + an = kiagian* means *encountered*, which only signals action that is already done.

Table 2.2
Morphological Features of Oral Kagan Literature on Word Classes

Word Class	Examples	Meaning
Pronouns		
• Personal Nominative	aku, kami	I, we
• Accusative / Dative	kanak, kanami	me, us
• Genitive	kanak, name	mine, our
• Indefinite	lahat	all
Descriptive Adjectives	Marayaw, maneg, matas	Good, strong, high/tall
	kabut, dakwa, tagbi	Brave, big, small
Adverbs		
• Manner	gayed, kenne	Strongly/surely, continuously
• Direction	dun, adti	there
• Location	sed	inside
• Position	asidi, ari	here
• Time	arun, kinsem	now, tomorrow
• Frequency	pirmi	always
Conjunctions		
• Coordinating	aw	and
• Subordinating	kay, kun	because, if

In Kagan language, word classes that are evident are the pronouns, descriptive adjectives, adverbs, and conjunctions as shown in Table 2.2.

Pronouns are found in the gathered oral literature. Unlike the English language which pronouns provide a clear distinction of gender class, Kagan language does not have this characteristic. They also have personal pronouns that are nominatives like *aku* (“I”), and *kami* that means (“we”). Accusative/dative pronouns are also found like *kanak* (“me”) and *kanami* meaning (“us”). However, both *kanak* and *kanami* are not only used as accusative but also as genitive as shown in the examples *ya kanak kubaw* (my turban) and *ya kanami eped* (our companions). The *kanak* is used as “my” while the *kanami* is used as “our” in the sample sentences. Finally, Kagan language has only one indefinite pronoun, the *lahat* which means “all”.

Adjectives are also one of the characteristics of the Kagan language. The descriptive adjectives found from the gathered oral literature characteristically have the affix *-ma* like the words *marayaw* (good); *maneg* (strong) and *matas* (high or tall). However, there are also bare stems like *kabut* (brave) in *mangkabut utaw* (many brave men) which the *mang-* is a prefix indicating plurality. Other examples are *dakwa* (big) *dakwa kauy* (big tree), and *tagbi* (small).

Adverbs in Kagan show its different aspects. The words *gayed* (strongly, surely) and *kenne* (continuously) are adverbs of manner. The words *dun* and *adti* which both means “there” are another aspect of adverb showing direction found in the Kagn



oral literature. Meanwhile, present also in the Kagan language is the adverb of giving location like the word *sed* (inside) and another examples that are indicating position like the *asidi* or *ari* which both means “here”. Furthermore, the adverbs of time and frequency are also evident in the Kagan language like the words *arun* (now) and *kinsem* (tomorrow) are indicating time while the word *pirmi* (always) indicates the frequency of an action.

Conjunctions are used to connect two ideas. In the Kagan language, the coordinating and subordinating conjunctions are observed. The word *aw* (and) is a coordinating conjunction used to link two words or two sentences. There are also subordinating conjunctions found in the gathered oral literatures like the words *kun* (if) and *kay* (because) that once attached to the sentence, they create a subordinating clause.

Table 2.3
Semantic Features of Oral Kagan Literature

Kind / Type	Examples	Meaning
Deictic expressions	dun, adti	there
• spatial deixis	asidi, ari	here
• personal deixis	ku, aku kami	I we
• temporal deixis	arun, kinsem	now, tomorrow
Denotative / Conceptual	buyag, kalibangbang	old woman, butterfly
Connotative / Affective	buyag kalibangbang	missing someone, longing nature, communion with God, lightness
Symbols	Kaguwangan(forest) tubig (water)	mysterious, unknown birth, fertility, cleansing, refreshment, purity home of spirits, spiritual nourishment, liberation, union and fertility
Synonymy	kauy (tree) dakwa – mabakla utaw – eseg	big man
Antonymy		
• gradable	Dakwa – tagbi marayaw – mikaket	big – small good – bad
• converse	mingkauge – pigbuntun pigkebuso – pigpaluwa	scattered – gathered
• complementary / relational	ama – ina datu – allang	imprisoned – released father – mother leader – slave
• polarity	pigbanggetan – pigubad	tied – untied
Dialectal words	Kubaw, kampilan, dilek	turban, sword, spear

The semantic features evident in the gathered oral literatures are presented in Table 2.3. The deictic expressions, denotative or conceptual words, connotative or affective words, symbols, synonymy, antonymy, and dialectal words are the features discussed in this part.

Deictic expressions are words that point to the time, place, or situation in which a speaker is speaking. In this study, the expressions are in the form of spatial deixis, personal deixis, and temporal deixis. For the words in spatial deixis, the speaker is pointing to a direction or location like *dun* and *idtu* (there) and *ari* and *asidi* (here). In the same manner, the personal deixis are also found in the gathered words. The *ku* and *aku* that means “I” are pointing the first person singular or the person himself while the *kami* meaning “we” is pointing to the first person plural. Another deitic expression is the temporal deixis which are words that denote time. Instances for these are *arun* (now) and *kinsem* (tomorrow).

Denotative / conceptual is another semantic feature found in the Kagan language which are evident in the gathered oral literature. These are words having dictionary meanings and are showing literal references. Examples are the words *buyag* as a Kagan word for an old woman referring to an aged woman worthy of respect from the young ones and *kalibangbang* (butterfly) which is a kind of an insect that flies with often brightly colored wings.

Connotative / affective are words that suggest a meaning apart from its explicit definition. The denotation of the Kagan words has its connotation. Like for instance the *buyag* or old woman could mean missing someone or longing for someone or something as reflected in the story *Ya Pagdiyandi na Kagan aw Buwaya* (The Blood compact Between the Kagan and the Crocodile). The story tells about the *buyag* who witnessed how her only one daughter was devoured by a crocodile. She was so saddened on the incident and the succeeding events in the story described how she expressed her extreme grief on the loss of her child.



Symbols are another semantic feature from the gathered literature that speak of the nature and culture of the Kagan people particularly their ancestors. The *kaguwangan* (forest), *tubig* (water), and *kauy* (tree) are only few examples of symbolisms reflecting the nature of living that the old Kagan had. The *kaguwangan* or the forest is suggesting the unknown and mysteriousness of the roots of the ancient Kagan where they got the pattern of their practices and traditions distinct from other groups. This is further suggesting that their forefathers were settling in thick forests and from the unknown species inhabiting in the vast area, the mysterious knowledge of the ancient Kagan able them to determine animals and plants that would help them in their survival.

Synonymy is also present as a semantic feature in the Kagan language. Many words are found synonymous like *dakwa* and *mabakla*. Both are adjectives that have the same meaning of “big”. However, *dakwa* is preferably and commonly used by Kagan speakers rather than the *mabakla*. For nouns, the *utaw* has the same meaning with *eseg* which both words mean “man” but the word *utaw* may also refer to people regardless of gender while the *eseg* refers only to “male”.

Antonymy denotes the oppositeness of the words. From the gathered literatures, the antonymy is shown in the different types: gradable, converse, complementary or relational, and polarity. For gradable antonyms, the words are expressing relationships along a continuum like the adjectival words *dakwa* or *mabakla* which means “big” that are in opposite to *tagbi* “small”. The converse antonymy is also shown in the word *mingkaug* “scattering” that is conversely opposite to *pigbuntun* “gatherd”. Furthermore, complementary or relational antonymy are also evident in the gathered lexemes. This type of antonym is having pairs of opposites where one cannot exist without the other such as if there is an *ama* “father” there must have an *ina* “mother”. Finally, the word *pigbanggetan* which means “tied” is completely opposed yet interconnected to *pigubad* “untied” denoting a polarity antonymy that is suggesting opposites that are interconnected.

Dialectal words are the final semantic feature found in the Kagan oral literature. These dialectal terms are confined to a definite locality that reflect the culture and the identity of a tribe like that of the Kagans. The *kubaw* that means “turban” or “head dress” is signifying the traditional costume of the Kagan people. *ya datu miglawung sa bakleg, ayawan ku kanmu ya kanak kubaw.* (the Datu is telling to the old man, I will leave you my head dress.) The given example is suggesting that the head dress symbolizes power and authority worn by an influential member in the tribe like a leader or a datu.

DISCUSSION

Existing Oral Literatures of the Kagan

The six existing oral literatures served as testimonies of customary beliefs of the Kagan and their faith to their God that are continually observed by this tribal group. The results confirm to what Ki-Zerbo (1990) explained that oral tradition can be interpreted as a testimony delivered verbally from one generation to the next and can also be interpreted as a form of a number of customs that have been established in certain

communities, a series of belief, the routines which is performed repeatedly to show the continuity through the spoken word or phrase by mouth as argued by Errington (1984). Oral literature is then conveying a verbal testimony about the things in the past that is passed on to the young generations. Additionally, the study conducted in Hagonoy, Davao del Sur where the researcher had encountered only few Kagan elders who could recall their oral literatures supports the report of Eberhard, Simons, & Fennig (2019) on having identified the Kagan language as a threatened language because of its decreasing number of users.

Morphological Features

The morphological features found are affixes, tense of verb, pronouns, descriptive adjectives, adverbs, and conjunctions. According to Manova (2014) prefixes and suffixes are the most common types of affixes cross-linguistically. Kagan language being from a group of Austronesian dialects as cited by Blust (2020) shows many affixes which most of them are verb-forming. This is confirmed in the study of Levin and Polinsky (2019) that verb morphology is richer in Austronesian than nominal morphology.

The word classes are also evident in Kagan language. They are the pronouns, descriptive adjectives, adverbs, and conjunctions. Pronouns are evident; however, unlike in English that consists many rules like, for example, its pronoun can identify gender by the use of “he” or “she”, the Kagan language is different because it cannot provide clear distinction of gender class as it does not adhere to it. The Kagan language can be identified in number (singular and plural), person (first, second, third) and case (nominative, accusative and genitive) just like in English.

The adjectival words are also found in the Kagan language. In many languages there is one lexical category whose primary function is to modify noun. This category is generally labeled Adjective according to Kroeger (2005). Despite of being agglutinative, bareness of the stem is also observable in the Kagan language. The adverbs in Kagan on the other hand, are used in different aspects. The use of their intensifier *tuu* and *untu* (very) is an example of this that do not have affixes. Pearson (2003) refers intensifier to “a word, usually an adverb, that is used to emphasize an adjective, adverb or verb. However, observing the patterns of their adverbs, there are no markers in their morphological structure unlike in English that the use of *-ly* signifies its being an adverb.

Conjunctions is another morphological feature found in Kagan language. Mauri (2017) articulated that it is defined as linguistic elements that link two or more words, phrases, clauses, or sentences within a larger unit, in such a way that a specific semantic relation is established between them. There are different groups of morphological structure of conjunctions in English; however, Kagan language shows only two uses – coordinating and subordinating conjunctions. Morphologically, their conjunctions are in the base form and do not need for affixes to perform their function.



Semantic Features

Semantic features found in Kagan language are deictic features, denotative and connotative, symbols, synonymy and antonymy, and the dialectal words.

Deictic features of the Kagan language are expressed in spatial, personal, and temporal deixis. Huang (2007) affirms that "Deixis is a universal linguistic phenomenon, that is, all human languages contain deictic terms". Kagan language is not excused from this. It also has several deictic expressions. Levinson (1983, cited in Stapleton, 2016) explained that deixis can be understood if contextual information of utterance is present. We cannot identify the meaning of this utterance, unless we know the time of the utterance, the place, and who the speaker is, in other words the context of the utterance.

For the denotative and connotative, most of the words taken from the gathered literary pieces are associated with nature like *trees, butterfly, moon, stars, tears*. The words are not ordinarily used in the literature as they do not simply express a thought, but also express feelings beyond the word's literal meaning according to Sekhar Rao (2017) that reflect the culture of the Kagan people. The connotation of the terms adds elements of emotion, attitude, or color of the Kagan cultural heritage like how the Kagan regarded the nature, such as trees, for it is where they were heavily linked as part of their life and survival in the old times.

Further to say, the symbols used in the oral literatures like forest, blood, water, mountain, anahaw, snake, and fire are associated in the warring, wandering, and hunting ways of life in the past. Everything that the old Kagan did, in their life, any biological, or internal need took place in the forest. Their spiritual needs were also gratified in the woods. As contested by Marfil (2014), many Kagan are still ethnic religionists, believing in the traditions and religions of their forefathers. They continue to believe in a variety of environmental spirits.

Synonymy and antonymy transpired also as semantic feature for Kagan language which entails the richness of their vocabulary. The synonymy is reflected in the varied lexical categories like adjectives, adverbs, nouns, and verbs while the antonymy is used in adjectives, verbs, and nouns. The correct usage and the knowledge of when and how to use these types of words as articulated by Bisera (2018) is considered to be one of the characteristics of the highest level of speaking skills of any foreign language.

Finally, the dialectal words in Kagan articulate of their characteristic since the words like *dilek, sawwe, biya, pamukan, kubaw dagum*, are words that are only encountered in the Kagan tribe. This speaks of their distinction from the other tribal groups. The symbol, together with the allegory, forms a dialectical unity where the terms mutually highlight one another; therefore, the allegory is at the same time, the sign and the significance, and the symbol is just the sign argued by Pedersen (2015).

RECOMMENDATIONS

This paper contributes to the appreciation of the Kagan culture and to the understanding of the morphosemantic features of the Kagan language. The study is delimited to the gathered oral literatures but the help of the few written literatures retrieved from the SIL archived, it provided substantiated details to analyze the morphological and semantic features of the language. This study recommends for various researches related to this study particularly on the investigation of morphology and semantics.

Other researches like distinctions of Kagan, Kalagan, and Tagakaulo languages can also be done to have a wider lens of the variations of culture and distinct linguistic features of the three languages which are believed to have belonged to one family. Finally, those researchers seeking for professional and personal growth in understanding culture and language may cite this study as reference.

CONCLUSIONS

I, the researcher, not having the blood of a Kagan nor having the idea of how to use the language was determined to unveil the hidden uniqueness of the Kagan who are just only known of their label and not anymore of their cultural identity.

This study provided me opportunity to interact with the indigenous people in Hagonoy, Davao del Sur and to meet the old Kagan author and illustrator of his time who did help in the preservation of the language and culture of the tribe. I realized that even marginalized and once discriminated tribe had contributed to the preservation of the diverse cultural heritage of the archipelago.

The study served as a prelude towards addressing the significance of language description and documentation of cultural heritage as a tool of language understanding, empowerment, and cultural awareness. And above all, this seemingly painstaking unsurmountable linguistic journey served as the leeway of unlocking the portals to peek through the possible and scholarly endeavor of countering language extinction.

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COLLOCATIONS WITH THE ADJECTIVE “ACHCHIQ” (BITTER)

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ABSTRACT

This article analyses the morphological and syntactic forms of the modifier- collocations with the adjective “achchiq” (bitter) in the Uzbek language and new semantic and stylistic changes in meaning and style. The collected examples were analyzed morphologically and lexically, and a list was compiled to analyze the changes in meaning within them. Attempts have been made to classify and analyze these lexical units according to their meaning and characteristics and ways of use in communication.

KEY WORDS: the meanings of the word “achchiq”, word combination, compound word, linguistic unit, definition.

It is known that the word “achchiq” (bitter) in the dictionary of Uzbek national language belongs to the adjectives and is made from a linguistic unit belonging to the verb group “achimoq” (to taste bitter). Therefore, in order for things or events to be “achchiq” (bitter), they must taste bitter, or things and events first become bitter, then taste “bitter”, if left for a long time, even turn into “acid” (alkali - caustic). In this sense, this word shows a polysemy. The meanings of the lexeme “achchiq” (bitter) are interpreted as follows in the “Explanatory Dictionary of the Uzbek Language” (2020) [2]:

The taste, that makes the tongue sour and tingles. Bitterly hot pepper.

Example: Farg‘ona vodiysidan boshqa joylarga ekiladigan turp negadir **achchiq ta‘m**, taxir mazaga ega bo‘ladi. K.Mahmudov, Qiziqarli pazandachilik.

Translation: For some reason, radish grown in other places than the Fergana Valley has a **bitter** taste. K. Mahmudov, Interesting cooking.
Bitter tea –deeply brewed tea.

Example: chol mayingina kulib qo‘ydi va xizmat qilayotganlarga bitta **achchiq choy** olib kelishni buyurdi. Gazetadan.

Translation: ...the old man laughed softly and ordered the waiters to bring one teapot of **deeply brewed tea**. From the newspaper.
Sour, stinging. Bitter (grainy) pomegranate.

Example: Otasi **achchiq** olma yesa, o‘g‘lining tishi qamashadi. Maqol.

Translation: If the father eats a **bitter apple**, the son’s teeth will gnash. Proverb.

Harmful to the senses, caustic. Bitter gas. Bitter tobacco. A bitter smell.

Example: Jiqqa ho‘l o‘tin yolg‘iz “pirs-pirs” qilib, **achchiq zahar** tutun buruqtiradi. Oybek, tanlangan asarlar.

Translation: Densely wet wood makes a lonely “pirs-pirs” and emits **bitter poison** smoke. Oybek, selected works.
Exhilarating, soul-stirring

Example: Dalalarda kech kuzning **achchiq shamoli** esa boshladi. S.Ahmad, Qadrdon dalalar. Tashqarida shamol uvular, **achchiq sovuq** naq badanni kesib ketguday edi. Gazetadan. [Sherbek] To‘rig‘ini egalladi. O‘zini egar ustiga olar olmas, otga **achchiq qamchi** bosdi. S. Anorboyev, Oqsoy.

Translation: And the **bitter wind** of late autumn started to blow in the fields. S.Ahmad, Dear Fields. The wind howled outside, and the **bitter cold** seemed to cut through the body. From the newspaper. [Sherbek] sat on his horse. When he could not get himself on the saddle, he **whipped the horse bitterly**. S.Anorboyev, Aksoy.

Polysemantic meaning:

Touching one’s heart, hurting one’s heart; harsh, unpleasant. A bitter irony. Bitter criticism.

Example: Haq so‘z – achchiq so‘z. Maqol. – U hatto bu achchiq ta‘nalarni eshitmaganday, sur bo‘lib turardi. Mirmuhsin, Umid.

Translation: The truth is a bitter word. Proverb. - He was silent as if he didn't even hear these bitter reproaches. Mirmukhsin, Umid.

The one with a bitter tongue - one who speaks harshly to a person, interrupts with words.



Example: Elmurodga rota komandiri yoqmadi: qalampir, tili achchiq, har gapni pisanda qilganday burab gapiradi. Shuhrat, Shinelli yillar.

Translation: Elmurad didn't like the commander: his tongue is bitter, like a pepper, he twists everything as if he were talking with inner meaning.
Grief, painful.

Example: Uning achchiq ko'z yoshlari har qanday odamga ta'sir qilmasdan qolmasdi. "Yoshlik". Cheki ko'rinmas bu so'qmoq yo'lovchining madorini, nainki madorini, jonini oladigan qismatday achchiq. "Saodat".

Translation: Her bitter tears could not fail to affect any person. This endless path is as bitter as the fate that takes the traveler's energy, strength and all the life.
noun Wrath, anger; dice.

Example: Hozir mening achchiq'im ham qahrim bor. "Erali va Sherali". Bobomning achchiq'i qursin, yomondir. "Nurali".

Translation: Now I have bitterness and anger. My grandfather's bitterness is bad.
Achchiq'i burnining ustida (yoki uchida) - a person who gets angry at something for nothing: to have a short fuse

Example: Ha, qizi tushmagur. Nafasini ham chiqarmaydi-ya. Achchiq'i ham burnining uchida, - dedi Murotali. Sh.Rashidov, Bo'rondan kuchli

Translation: - Oh, my dear daughter, she doesn't even breathe. She has a short fuse, - said Muratali.
Achchiq'i kelmoq (yoki chiqmoq, qistamoq) -to get angry (or to be angry)

Example: Go'ro'g'lining achchiq'i kelganini bilib, Soqi o'rnidan turdi. "Malikai ayyor". Xurshid achchiq'i chiqdi, deb o'yladi. N.Aminov, Qahqaha. Aytsam, yana achchiq'ingiz qistaydir. A.Qodiriy, O'tgan kunlar.

Translation: Knowing that Gorogli was angry... Soki got up. Khurshid thought that he was angry. If I tell you, you will be angry again.
Achchiq ustida - Jahl qo'zg'agan paytda- getting mad

Example: Bas endi, achchiq ustida har kim har gapni aytadi. Hamza.

Translation: That's enough, everyone says everything when getting mad.
Achchiq qilmoq - Jahl qilmoq, zarfa qilmoq - to have a conniption, to be angry, to speak bitterly.

Example: Bir talato'pni sotib olding, qattiq gapirding, deb achchiq qildi. "Malikai ayyor".

Translation: He said bitterly that you bought a problem, you spoke harshly.

Jon achchiq'ida Jahd – alam bilan, jon- jahdi bilan - struggling in pain, with pain, with soul-struggle, in agony.

Example: Ot jon achchiq'ida old oyoqlarini devor baravar ko'tarib sapchidi. S. Ahmad, Ufq. U [Ortiq] sapchib o'rnidan turib.. jon achchiq'ida mashina orqasiga aylanib o'tib, brezentni ochib tashlab, o'rindiqlar tagini titkilay ketdi. M. Mansurov, Yombi.

Translation: The horse raised its front legs to the wall in agony. He [Ortiq] got up with a huff... he went around to the back of the car in agony, opened the tarpaulin and started looking under the seats.
noun Difficulty, challenging; sadness, grief; suffering.

Example: Achchiq bilan chuchukni totgan bilur, uzoq bilan yaqinni yurgan bilur. Maqol. Bir achchiqning bir chuchugi bor. Maqol. – Turmushning achchiqlarini totib ko'rgan.. qadimgi batrak Abdurasul bu kunlarda o'z muddaosining amalga oshayotganini his etar edi. P.Tursin, O'qituvchi

Translation: He who has tasted bitter and sweet, knows who has walked far and near. A bitter has a sting. - Abdurasul, an old soldier who has tasted the bitterness of life, felt that his destiny was being fulfilled these days.

It can be seen that in this dictionary the verbs such as *achchiqlanmoq*, *achchiqlashmoq* (to become angry or bitter), pair-words, such as *achchiq-tizziq* (distress), *achchiq-chuchuk* (good and bad days of the life or salad made of sliced tomato and onion), *compound words*, such as *achchiqmiya*, *achchiqtosh* were codified as a result of the above-mentioned meanings of the word "bitter" and that the expressive power of our national language increased through them. In addition to the examples given above, in the explanatory dictionary there are other words such as *achchiq anor* (bitter granate), *achchiq garmdori* (bitter pepper), *achchiq gaz* (bitter gas), *achchiq hid* (bitter smell), *achchiq istehzo* (bitter sarcasm), *achchiq ko'z yosh* (bitter tears), *achchiq olma* (bitter apple), *achchiq qamchi* (bitter whip), *achchiq sovuq* (bitter cold), *achchiq so'z* (bitter word), *achchiq ta'm* (bitter taste), *achchiq tamaki* (bitter tobacco), *achchiq tanqid* (bitter criticism), *achchiq shamol* (bitter wind), *achchiq choy* (bitter tea).

In the course of our work, we were interested in the place and frequency of use of the word "bitter" in our colloquial language (not in dictionaries), the formation of new word combinations depending on the situation and opportunity, we witnessed that it encountered various morphological-syntactic forms and new semantic-stylistic meaning and stylistic changes. We compiled a list of the collected examples for a deeper morphological and lexical study and a wider analysis of their meaning changes. We currently have the following words in our inventory *achchiq aroq*, *achchiq bayonot*, *achchiq bodring*, *achchiq dori*, *achchiq gap*, *achchiq hayol*, *achchiq haqiqat*, *achchiq hayot*, *achchiq hazil*, *achchiq kinoya*, *achchiq kofe*, *achchiq meva*, *achchiq murch*, *achchiq non*, *achchiq osh*, *achchiq peshona*, *achchiq pivo*, *achchiq piyoz*, *achchiq qismat*, *achchiq qovun*, *achchiq sirka*, *achchiq suv*, *achchiq taqdir*, *achchiq ta'na*, *achchiq*



tarvuz, achchiq tush, achchiq turmush, achchiq vino, achchiq zahar, achchiq o'y, achchiq shokolad.

Below, we will try to classify and analyze the above-mentioned lexical units according to newly discovered features of meaning and methods of use in communication, including:

I. Collocations with the meaning of "bitter" is related to taste.

- **Sho'r, nordon (Salty, sour)**¹- *bitter tomato, bitter cherry, bitter apricot, bitter apple, bitter peach.* To what extent the "bitterness" of the named vegetable type "tomato" and the fruit types "cherries, apricots, apples, peaches" differ from each other in terms of taste, for example, it seems better to understand the meaning of the word with the ratio of salty to tomatoes, and the ratio of apples and apricots to sour. After all, fruits and vegetables are different, so their "bitterness" level and quality are not the same. "Bitterness" is felt by keeping the taste of each fruit or vegetable at a certain level.
- **Tursh (Sour).** Compounds with the meaning of "sour", usually soups and doughy foods, or foods made from mash, beans, peas, turn sour when left standing, and such food is called "it is addled". In addition, dried apricots with low sugar content are called "turshak" in our national language. The word "tursh" came to Uzbek language from Persian.
- **Taxir (Acerb).** Compounds found in the meaning of "acerb", can include language units such as bitter tea, bitter coffee, bitter cocoa, bitter medicine. After a few days, the taste of these drinks deteriorates, their bitterness increases, and their smell and taste become unpleasant.
- **Talx (Acidic).** Compounds meaning "acidic", when liquid food is boiled for a long time and water is reduced, the taste of food is more salty and the food becomes acidic. If the beer is left for a long time, it will become acidic if the expiration date has passed. In such cases, food or beer is called bitter (bitter food, bitter beer).
- **Qizdiruvchi.** Compounds meaning "heating": usually alcohol drinks heat up the body of a person, and they are called bitter alcohol, bitter brandy.
- **Kuydiruvchi.** Compounds with the meaning of "burning", such language units as hot pepper, which naturally has this property, bitter vinegar with excessive alkaline properties, and high-dose alcohol, bitter alcohol, can be included in this group.
- **Ta'mi buzilgan, aynigan.** Compounds with the meaning "distorted, nauseated", as a result of partial rotting of tomatoes, melons, watermelons, turnips, and beets, their taste is nauseated and they cannot become full of alcohol. In this case, they are called bitter tomato, bitter melon, bitter watermelon, bitter turnip, bitter beet. Raw cucumbers and raw grapes are also bitter when they are not yet fully ripe and are called cucumber is still bitter or grape is still bitter, unripe.

II. Compounds related to "human body metabolism", it is known that when a person sweats or cries when he is working

hard or is mentally nervous, the fluid coming out of the body or the tears flowing from the eyes are salty, and they are called bitter tears or bitter sweat. Bitter urine can be cited as an analogous example. Similar to these, there is also the phrase bitter forehead, which can be interpreted in two ways: the saltiness of the forehead skin or bad fate. The lexeme "salty forehead" is a clear proof of this.

III. Compounds related to "spiritual experiences of a person", such as bitter dream, bitter thought, bitter thinking. Emotional situations that point to the extreme badness of certain processes in human life, the difficulty of enduring and bearing, or the end of the reality that has befallen a person with extremely negative consequences are expressed by these phrases.

IV. Compounds "emphasizing the hardships of social life", human life can be easy (easy, effortless, pleasant) or difficult (complicated, challenging, full of suffering) in a certain sense. The second situation is figuratively called bitter life, bitter fate, bitter truth. In this case, the meaning of the word "taste" is heavy (unbearable), difficult (full of challenges), pain (suffering) and others.

V. Compounds related to the meaning of "negative image", among them can be included lexemes bitter word, bitter sentence, bitter message, bitter information, bitter statement. In these examples, "bitter" has nothing to do with the language, our organ of taste, a person needs a high spirit to understand the bitterness that is understood through compounds, or a person observes them mentally, changing the negativity of the image to the negativity of the message, information or statement to the good.

VI. Bitter sarcasm, bitter taunt, bitter reproach, bitter joke, bitter humor, which are used to mock and oppress the interlocutor, are also used in communication for the purpose of touching the person of the interlocutor, knocking him to the ground, laughing at him.

VII. Among the compounds related to "expression of unpleasant weather" can be included bitter air, bitter fog, bitter wind, bitter cold. These compounds take into account the fact that the air or fog contains irritants (so that the nose is irritated by the combination of various substances with oxygen in the air and fog), as well as the body-shaking properties of the wind and the cold's pinching of the face. There are also compounds related to the smell, such as bitter tobacco and bitter smoke, the bitterness of which is mainly assessed by the amount, level or type of the burning substance spread into the air. Just as incompletely burned gas is responsible for the bitterness of smoke, the type of tobacco plays an important role in the bitterness.

In the process of analyzing the above described and classified word combinations, we witnessed another important phenomenon in our language, that word combinations have increased their expressive power as a result of the drastic changes (improvement) of the social life of our people. Those

¹ These words are a product of the Persian vocabulary, and they have alternatives, such as *banamak* and *namakin* in this language.



who changed their morphological form and became a compound word. Now they are not “two independent words that are interconnected in terms of lexical and grammatical meanings and express the same thing or event [11]”, but morphologically they have become compound words, meaning to name things and events.

This phenomenon is one of the age-old traditions of enriching the vocabulary of certain languages. However, the fact that compound words are made from two words, and compound words are made from compound words is a natural phenomenon in the development and progress of every language, it is not news for every person who is interested in language.

In this sense, our inventory includes the words “bitter granate”, “bitter pepper”, “bitter almond”, “bitter onion”, “bitter chocolate” and “bitter grain”. In them, the subordinate feature of the word combinations with the “bitter” component does not specify the ordinate word, but now it indicates a third thing, or fruits, vegetables, and sweets, as a component of the determining compound word. Taste, which is emphasized in word combinations, now takes second place in communication, and the main emphasis is placed on variety, species and type, etc. After all, the variety has no direct connection with “spiciness”, the connection is indirect. In the context of communication, first there is a variety or species, and then it is understood that “spicy” vegetables and fruits are grown and products are prepared from this variety. As a result, the language becomes richer, the power of expression increases.

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LIFE AND SCIENTIFIC ACTIVITY OF KAYKOVUS

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ABSTRACT

This article describes Kaykovus's pedagogical ideas, didactic and moral teachings, his meetings with famous scientists in Bukhara, Samarkand, and Khorezm before writing "Kabusnama", as well as his moral views.

KEY WORDS: *Education, pedagogical ideas, philosophy, "Kabusnama", primary education, family's tradition, ancient Greek culture, higher education, bibliographic literature, future generations.*

Moral education is a crucial aspect of shaping and nurturing a child's personality. Schools play a vital role in instilling in elementary school students an active approach to life, fostering patriotism, and encouraging friendship. We understand these as the state's care for our religion, folk traditions, customs, culture, literature, and history. To begin our research, we must acknowledge the significance of Kaykovus's "Kabusnama" in the history of pedagogical ideas worldwide. The ideas presented in this book are one of the spiritual roots of our country and form the basis of our research. Before we delve into the details of this book, it is important to understand the life and work of Kaykovus, and how his pedagogical ideas can be incorporated into the education of future pedagogues [1].

Unsurul-Maoli Kaykovus Ibn Iskandar Ibn Qabus Ibn Voshingir Ibn Ziyor, the author of "Kabusnama" came from a family of small feudal rulers of Tabaristan. Merdaviy, the ancestor of Kaykovus, who served as an ordinary general during the Samanid dynasty, lived in 931-936 and created a large independent property in the north of Iran through conquest. He relied only on his military strength, which caused the boundaries of his kingdom to frequently change due to the success or failure of his military campaigns. Eventually, the unstable state union he had created fell apart, and the western part of his territory was handed over to Buveykhidam. The Samanids controlled the kingdom during the reign of Voshingir (935-967) [2].

Kaykovus openly writes about the inappropriate behavior that led to the tragic death of his grandfather in "Kabusnama". Kaykovus's main aim as a pedagogue was to demonstrate that negative consequences result from bad behavior, malicious actions, and unpleasant characters, based on truthful historical information and events related to his family of intellectual ancestors.

Another important point is that Kaykovus always tells his son about his origin while the work is being written. One day he said: *"My father, the great Amir, may God be pleased with him, never pursued a fugitive and never allowed anyone to do*

this..." [3], the following passage makes these meaningful points: *"...A woman reigned in Rey, her name was Sayida,... She was the daughter of my mother's nephew, the wife of Fakhruddavla"* [3]. It is also known that Kaykovus married Sultan Mahmud's daughter. In each chapter of his work, he reminds his son that his grandfather is from the great and powerful Sultan Mahmud bin Sabuk. But the fact that Kaykovus was an aristocrat is clearly and systematically described at the beginning of "Kabusnama".

According to Kaykovus, he represents the aristocrats. Kaykovus himself was from the royal family, and at that time he learned all the necessary knowledge and performed administrative duties. According to S.Dolimov, Kaykovus was a highly educated, knowledgeable, literate person. Before writing "Kabusnama", he visited Bukhara, Samarkand, Khorezm and met famous scientists. Researched and analyzed pedagogical works. The question of the ancestor, grandfather, father and other relatives of Kaykovus is solved quite correctly from a genealogical point of view, however, determining the years of birth and death caused many difficulties. There is no clear opinion on this issue in scientific research and bibliographic literature. According to A.Krimsky [4] and T.Gols [5], Kaykovus was born and lived for more than 63 years. At the end of his life, he wrote "Kabusnama" to his son.

Analyzing the existing literature, the year of birth and death of Kaykovus is 1020-1083. It can be calculated, because according to the sage, "Kabusnama" was written in 475, and according to all authors, he lived for 63 years.

There is very little information available regarding Kaykovus's years of study, his teachers, and the professions and arts he acquired during that time. However, upon analyzing "Kabusnama," we can conclude that he had a good understanding of the new sciences and arts that were emerging during his time. It can be concluded from the scientist's positions on primary education for children that he himself successfully passed this stage of the medieval Eastern education system.



It is easy to find specific information about Kaykovus's study of military art. His father pays great attention to his learning of martial arts. "When I was ten years old," writes Kaykovus, "I had a teacher named Bamanzar-Khojrid who knew the art of horse riding and was a master of martial arts. He had a dark-colored servant named Rayhon. ... My father, may God be pleased with him, taught me to ride a horse, to learn the art of javelin throwing..., throwing and swimming..." [3].

In addition to military arts and oral sciences and professions, Kaykovus studied philosophy, medicine, mathematics, veterinary medicine, and ancient Greek culture from teachers specially hired by his father, Amir Iskandar. Because in the chapters of "Kabusnama" about these professions, the author shows great knowledge in describing these topics. For example, in the chapters "Medical Treatment", and "Methods of Science", we can be surprised by new information about the deep knowledge of Kaykovus, including ancient Greek science in general. He imitated Ibn Sina: "You should know that medical science consists of two parts: theory and practice" [3]. In this chapter, Kaykovus discusses topics such as diagnosis, treatment theory, patient care principles, medical ethics, and more. Based on his clear and insightful thoughts, it can be concluded that his medical education was provided by a highly qualified teacher who had a deep knowledge of ancient Greek and Eastern medicine. Kaykovus said that he is close to medicine: "I really liked medicine, it is a useful science. ... people want to talk a lot about what they like," [3] he explains with great enthusiasm. This passion and dedication has allowed him to achieve a lot in his educational journey. Another significant aspect of Kaykovus's life is whether or not he and his father continued their family's tradition of intellectual pursuits by becoming kings or princes.

S. Nafisi says that neither Kaykovus nor his father Iskandar was a king [6]. It is known from the "Kabusnama" that Kaykovus was not a king, the issue related to his father is of a different nature.

Iran did not have an independent government after it was conquered by the Seljuks. Kaykovus, who ruled a part of Tabaristan, was only an emir. His rule was limited to Gorgan and Tabaristan. His wife was the daughter of Sultan Mahmud Ghaznavi, which meant that he spent a lot of time traveling to other regions. For example, he lived in Sultan Maudud's palace for 8 years, then spent some time in the Ghazul and Rum regions of India, and later in the city of Ganja in the palace of Amir Abulsawar Shaowar ben Fazl Shaddadi. He also went on pilgrimage. Ibn Isfandiyar wrote that he died in 462 AH, but some scholars believe that the year of writing "Kabusnama" does not match the year of his death since it is written as 475 years. If we believe that Ibn Iskandar wrote it, then it is true that the "Kabusnama" was completed between 457-462. Therefore, we can agree with S.Nafisi and all the opinions related to Kaykovus.

Kaykovus was a representative of the aristocratic environment of medieval society. His father's family was famous for their soldiers, and his mother's family were great princes. These

family backgrounds need to be taken into account when analyzing Kaykovus's pedagogical ideas. In most cases, his views are considered from an aristocratic point of view.

Kaykovus's only work "Kabusnama" is written in the national tradition and is a historical one, it consists of 44 chapters and 56 stories. It was written in Tajik language in 1082-83. It is a pedagogical-didactic work written for the purpose of educating his son Gilonshah. The author stated the purpose of writing the work as follows: "...One of the immortal things in life is a book, there is no powerful force that can destroy it..." I will tell you some stories about overcoming every difficult task and trying to leave a good name that will be an example for future generations, you will learn, that I will fulfill my fatherly duty. The author often gives examples from his life and the life of our ancestors. His stories, on the one hand, help restore Kaykovus's life, and on the other hand, the information obtained in this process serves as additional material for the study of his pedagogical ideas. "Kabusnama" as a pedagogical-didactic work is famous not only in the East but also in the West.

"Kabusnama" was published 8 times in Iran and India. Among these editions, the edition of Reza-Kuli-khan-Hidayat is the best. This edition was published in Tehran in 1307-8 and 1890-91. The third edition was published in 1314 and 1897. It was published in Bombay, the fourth is the third edition of Reza-Kuli-Khan, 1319-1902, and it was published in Tehran. A fifth edition was published again in Bombay in 1326 and 1907-8. It is based on the editorship of Reza-Kuli-khan. However, publishers tried to make many changes to the text and fill it with fragments of various legends and poems. In 1331 and 1912-13, a part of the Book was published in Bombay. 1341 and 1923 Reza-Kuli-khan's edition was reprinted in Isfahan, this time under the editorship of Fathullah bin Amulla Wali Urduni Bakhtiru.

Kaykovus's pedagogical ideas have their own sources:

- a) pre-Islamic culture of Iranian-speaking peoples;
- b) folk pedagogy;
- c) advanced traditions of the civilization of the Soman era and practical pedagogy of Arab-Persian theoretical thinking (the works of al-Razi, al-Farabi, Ibn Miskawayh, Ibn Sina);
- c) it is possible to show the Islamic-theological pedagogy expressed within the framework of life thinking and image.

The most important of these is the pre-Islamic culture. Of course, one of the theoretical foundations of Kaykovus's pedagogical teaching is the pre-Islamic culture, that is, the didactic and moral teaching of Zoroastrianism, which may seem ambiguous. However, it should be noted that the ethical idea of Zoroastrianism influenced not only Kaykovus, but also the outlook of many Turkic-speaking thinkers and Western scientists.

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A COMPREHENSIVE EVALUATION OF EMPLOYABILITY PREDICTION USING ENSEMBLE LEARNING TECHNIQUES

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ABSTRACT

The Quality Education plan reflected in the Goal four of the United Nations 2030 Agenda for Sustainable Development stresses the essential function of Education in developing an equitable and just society and reaching complete human potential. The present-day Technical Higher Education system focuses only on the skill sets a student acquires on completion of the programme. The visibility of private HEI is made through the national and international rankings they have and the stakeholders are concerned about the campus placements of their wards. The IT firms choose HEI s for campus drives by their visibility and they need skilled workforce with multidisciplinary abilities. This study by collecting information from the student database, employing ensemble learning techniques, focuses on such aspects makes an efficient prediction on factors that contribute to high quality learning and improved possibility of campus placement. The proposed model extracts data from dataset with 20 attributes. This enhanced predictive approach based on stacking ensemble learning approach predicts the campus placement chances to an accuracy of 90.21%.

KEYWORDS: quality education, multidisciplinary abilities, placement prediction, ensemble learning, stacking ensemble.

I. INTRODUCTION

The Goal eight of United Nations 2030 agenda for sustainable development, decent work and economic growth, can be achieved through the goal four Quality Education. As higher education systems grow and diversify, this education sector has been identified as one of the promising areas for private and foreign investments. The need for a skilled workforce with multidisciplinary abilities across the sciences will be increasingly in demand for campus placements and is a challenge to the institutions in the current scenario. The introduction of new generation courses with learner-centric, discussion-based, flexible and industry-oriented curriculum has now become a practice of private educational institutions to ensure learning outcomes and employability to its graduates. The rationale of this work is an attempt to provide tools/guidance to technical HEIs and curriculum developers on how to structure programmes based on student placement possibilities and thus achieve goal eight of sustainability development using performance-based assessments.

The work helps in boosting the institutions to device fruitful steps to eradicate unemployment among the technically qualified youth. The observe allows the institutions, students, curriculum designers and the college through enhancing their knowledge on how a great deal the scholars are getting to know and what sort of they're at risk of employment in campus. There have been plenty of studies on education data mining and few on student employability prediction but the prediction with ensemble learning techniques are less presented [2,3,12,13].

Ensemble Learning Methods

Ensemble styles that train numerous students (the learned model can be known as a postulation) and furthermore

consolidate them for use, with Boosting and Bagging as agents, are a sort of cutting-edge proficiency approach. Gathering styles train numerous students to break a similar issue. As opposed to normal education approaches which attempt to build one student from preparing information, group styles attempt to develop a bunch of students and join them. Troupe proficiency is additionally called commission-grounded education or learning various classifier frameworks [6]. Group is essentially a style that help the delicacy of powerless students (likewise applied to as base students) to solid students, which can make genuinely exact guesses. It joins two or further calculations of practically equivalent to or various sorts called base students. This makes a stronger framework, which consolidates the guesses from every one of the base students to get our last "exact" and more uncertain biased choice. Fig1 shows a typical ensemble skeleton.

There are three garments of early grants that prompted the ongoing area of group styles; that is, consolidating classifiers, outfits of feeble students and admixture of specialists.

1. Joining classifiers was significantly concentrated on in the example acknowledgment local area. Experimenters in this string for the most part work serious areas of strength for on and attempt to plan significant joining rules to get more grounded consolidated classifiers.
2. Gatherings of powerless students was significantly concentrated on in the AI people group. Requests in this field much of the time work on feeble students and attempt to plan significant calculations to support the presentation from frail to solid.
3. Admixture of specialists was considerably concentrated on in the brain organizations' local area. Experimenters for the most part think about a pinnacle and-overcome

methodology, attempt to gain proficiency with an admixture of parametric models deliberately and use consolidating rules to come by a general outcome.

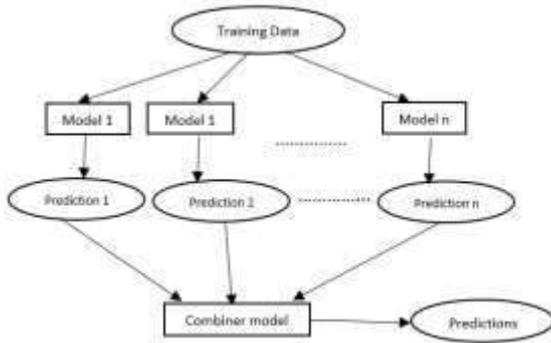


Fig 1: General Ensemble Architecture

Many recent research are employing ensemble machine learning techniques and are reporting encouraging results for a variety of applications. Inspired by these successful outcomes of ensemble combinational techniques, the authors attempt to explore ensemble learning methods for employability prediction. Despite much research consideration of applying ensemble approach for many prediction and recommendation systems, there is a still limited amount of attention focusing on employability predictions by considering different categories of data.

Relevance of Work

On thorough evaluation of the similar methods employed, the authors noticed a degradation in the prediction process since the attributes contributing to the intelligent quotient level of students were never considered. The authors identified demographic data as well as the mentor index play a vital in contributing to the attitude of the person. Apart from technology skills such attributes are necessary for such prediction systems. The authors attempted to employ various ML algorithms and then applied the ensemble methodology for getting the accurate result. The results at various stages are analyzed with actual data available and the true positive cases are proved.

Analysis

Precisely, the authors attempt to address the following open research queries:

- (i) Are ensemble techniques effective for learning variety of attributes and making effective predictions.
- (ii) How to upgrade and adapt existing machine learning models with ensemble techniques for the dataset.

From the experimental studies conducted, the authors were able to attain some encouraging results.

As a summary, the authors were able to introduce the efficient set of attributes to be selected for predicting employability using ensemble techniques which can be considered as the major contributions in this work.

II. LITERATURE REVIEW

The aim of this research work is based on the high potentiality that can be applied in machine learning techniques for predicting the performance of graduates based on several factors. The research suggests that applying different machine

learning and to the top ensemble models can produce better results. Multilevel classification proved to be one of the best approaches for classification and these approaches construct ensemble members using bagging scheme [7]. Many studies included the characteristics of students like behavioural features, academic and demographic performances in the training data set for supervised machine learning techniques. The study involves the comparison of many machine learning algorithms and it is observed that logistic regression can give better accuracy. The performances of the algorithms were evaluated by AUC and RUC, which shows the real accuracy of the algorithm [8]. Support Vector Machine (SVM) classifier also featured as one of the best algorithm for prediction analysis [19].

On the dataset, the study performed classification using Decision Tree (ID3), Naive Bayes, K-Nearest Neighbor and Support vector machines to predict student's academic performance. After implementing the ensemble method, it is found that the accuracy of the model increased. The researchers also used Bagging, Boosting, and Voting Algorithm that are the common ensemble methods [18]. The authors suggested an ensemble algorithm The authors cautioned an ensemble set of rules "Roughly Balanced (RB) Bagging" the use of sampling approach to enhance the unique bagging set of rules for facts units with skewed magnificence distributions. The variety of samples in the biggest and smallest lessons are different, however they're correctly balanced whilst averaged over all the subsets, which helps the method of bagging in a extra suitable way [9].

Ensemble mastering strategies, have validated incredible capacities to enhance the prediction accuracy of base mastering algorithms. The authors suggest the speculation which offers development in accuracy of multi method strategies to ensemble mastering is because of a boom withinside the variety of ensemble individuals which are formed. Multi method ensemble mastering strategies are extra correct than their issue ensemble mastering strategies [21].

Ensemble mastering first off extracts a fixed of functions with a number of transformations. Based on those found out functions, more than one mastering algorithms are applied to provide susceptible predictive results[16]. Over the preceding years, ensemble mastering has drawn good sized interest withinside the discipline of synthetic intelligence, sample recognition, device mastering, neural community and facts mining. Ensemble learning proved to be efficient and functional in wide area of problem domain and substantial world application [17]. Normally, academic parameters are given more weightage in predicting the academic performance of a student. The study compares the two models: one built using academic parameters only and another using both academic and non-academic (demographic) parameters[1,11].

The research can be useful for predicting student performance and helping educators to make informed decisions by proactively notifying the students [14]. The study used machine learning approaches for predicting students' employability and it gives a promising conclusion that lead to the researchers to

be motivated to enhanced the process and to validate the produced predictive model for further study [17].

The study reported all machine learning algorithms that were used and compared to predict employability; reporting that deep learning methods are rarely used although once again identifying the weakness in searching for the optimal parameters [15]. The findings indicate that the understanding of employability is enhanced by considering both structural and individual dimensions [5]. One of the important issues that have be taken into consideration when building classifier ensembles is to select a pool of diverse and complementary individual classifiers for the ensemble [10]. The obtained results of the study reveal that there is a strong relationship between learner's behaviors and their academic achievement [4].

METHODOLOGY

The experimental dataset was the technical student record of the HEI for which the prediction system was built. The dataset consists of 1965 student data who had successfully graduated the institution in three consecutive years. After optimization 20 attributes were selected for prediction of the employability characteristics.

Dataset Characteristics

The data from the data set is categorized primarily to three: Demographic, Scholastic and Co-Scholastic. In the outcome-based education scenario, the Co-Scholastic factors contribute a lot to the achievement of Course Outcome (CO) and Programme Outcome (PO). Measuring of academic performance is a challenging task, since three factors are connected with the performance and prediction- demographic, academic and campus behavioural factors. The authors considered all these factors and the data pertaining to co-scholastic index which contribute directly to the possibility of employment was carefully chosen. Technical skills such as index in product development, paper publication, patent, prize winning in Hackathons are now a scale for measuring the ability of a student. Mentoring plays a key role in the current education state and the index was concluded based on the overall continuous observation and assessment [2,12,22]. It is observed that socio-psychological and educational aspects are more predictive outcome than with medical.

Demographic data which points more to the family characteristics can also be measured as a contributor of scholastic levels as well as attitude of a student. The authors were keen in observing the fact that HR level is an inevitable part of the placement process where attitude of a person plays vital role. The Scholastic factors which are the direct output obtained from evaluation system cannot be replaced in any situation. It is the quantitative measure of eligibility for any selection procedure and has given due importance. Educational data mining techniques are exploring faster, but need more collaborative studies with challenge of minimal attributes [14,20].

The authors carefully applied the Machine Learning algorithms as prediction and classification cases. Machine learning techniques provide accurate predictions on student's

assessment marks and achievements. Dimensionality reduction applied in the dataset initially as large number of input features always makes the prediction a challenging task. Stacking ensemble models are found very effective in multi-label ensemble classification problems[18].

Ensemble Technique

Group is the method involved with consolidating forecasts from numerous models to a solitary vaticination to consummate section execution. We join prepared on the equivalent dataset to decide whether they beat the loftiest scoring single model. Every framework is assessed utilizing stacking ensemble. Figure 2 depicts the ensemble methodology used in this study.

Boosting and Bagging

There are two standards of group styles, or at least, successional troupe styles, where the base students are produced successionally, with Boosting as a delegate, and resemblant outfit styles where the base students are created in equal, with Bagging as an agent. The starting incitement of successional styles is to take advantage of the general exhibition can be helped in a remaining of resemblant gathering styles is to take advantage of the freedom between the base students, since the mistake can be decreased decisively by consolidating autonomous base students.

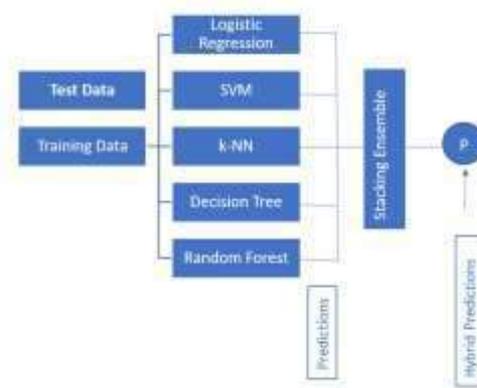


Fig 2: Ensemble Methodology

Stacking

Stacking is a design where a student is prepared to join the singular students are known as the student, or meta-student. We first train the first likewise initiate another informational collection for preparing the meta viewed as info highlights while the first markers are as yet viewed as markers of the new preparation information. A general stacking methodology is represented below.

```

Input: Data set  $D = \{(x_1, y_1), (x_2, y_2), \dots, (x_m, y_m)\}$ ;
        First-level learning algorithms  $\mathcal{L}_1, \dots, \mathcal{L}_T$ ;
        Second-level learning algorithm  $\mathcal{L}$ .

Process:
1. for  $t = 1, \dots, T$ : % Train a first-level learner by applying the
2.    $h_t = \mathcal{L}_t(D)$ ; % first-level learning algorithm  $\mathcal{L}_t$ 
3. end
4.  $D' = \emptyset$ ; % Generate a new data set
5. for  $i = 1, \dots, m$ :
6.   for  $t = 1, \dots, T$ :
7.      $z_{it} = h_t(x_i)$ ;
8.   end
9.    $D' = D' \cup \{(z_{i1}, \dots, z_{iT}), y_i\}$ ;
10. end
11.  $h' = \mathcal{L}(D')$ ; % Train the second-level learner  $h'$  by applying
        % the second-level learning algorithm  $\mathcal{L}$  to the
        % new data set  $D'$ .

Output:  $H(x) = h'(h_1(x), \dots, h_T(x))$ 
    
```

III. RESULTS AND DISCUSSION

Prediction Cases and Results

The authors first tried decision tree model on number of straight out highlights present. Truly, one of the significant advantages of this sort of framework is its straightforwardness to comprehend and decipher. This model gave a prediction accuracy rate of 0.8790024. Random Forest is the method of the classes (section) of the singular trees. When applied the model on our dataset, execution contrasting with the previous models, with a delicacy of 0.8905202 is observed. K-Nearest Neighbour to our dataset, models were made with various "k" values fluctuating from 1 to 100 and delicacy of each model being tried by making vaticination on the test information. The authors utilized "knn" work in R for this approach which got back the worth of $k = 20$ with in general delicacy of 0.8897394. Applying support vector machine model to our dataset, was somewhat trickier since this model requires the dataset to be switched over completely to a configuration of SVM bundle, and direct straightforward scaling to the information (Kumari, Jain, and Pamula 2018). Our initial step is to address every perception in our dataset as a vector of genuine figures, i.e., convert the categorical attributes into numeric information. The prediction rate for single classifiers was accomplished after applying this model to our information, with a delicacy of 0.8848902.

Table1: Accuracy of level 1 classifiers

Model	Accuracy
Decision Tree	0.8790024
Random Forest	0.8905202
K- Nearest Neighbor	0.8897394
Support Vector Machine	0.8848902

Now, the authors present the various results of the study. Figure 3 shows each model's delicacy and a correlation between them.

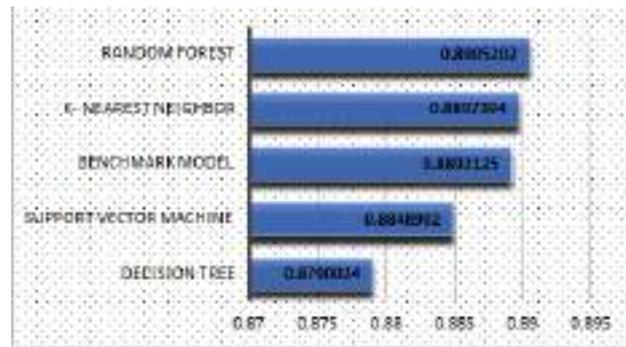


Fig 3. Model Accuracy

Figure 4, clearly represents the accuracy comparisons of various models with the proposed stacking ensemble model.

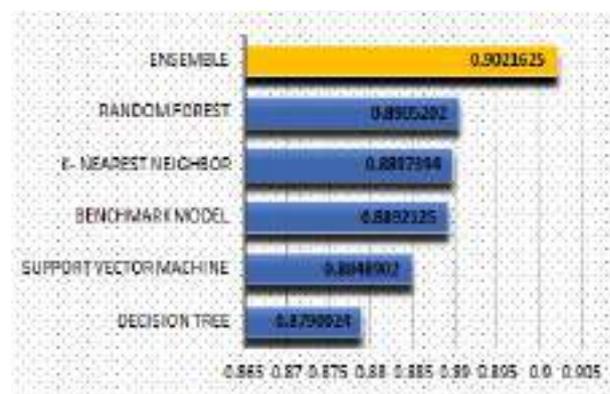


Fig 4. Accuracy comparison with stacking ensemble

IV. CONCLUSION

Predictive models and recommender systems producing accurate suggestions can support learners to grab amazing opportunities. The authors, well experienced academicians in self-financing professional sector, were in constant study of finding a best prediction system for employability which in turn can help the HEIs for the timely educational interventions and equip their stakeholders for suitable employment. This work is an extension of the previous studies made by the same authors by engaging ensemble learning techniques.

For any prediction system, choosing the correct set of attributes which give best result, is a challenge. This study is carefully done by employing different algorithms in Machine Learning and then the stacking ensemble model which combines the predictions and produces more accurate results. To minimize the error possibilities, in prediction, R2, Mean Square Error and Root Mean Square Error scores were studied with two different test data ratios. On comparison with the actual placement data of three consecutive years and the better prediction accuracy from the previous study, the attributes chosen for the datasets can be made optimum. The prospective work may introduce possible consideration of psychological attributes which may help in bringing out the attitude of the ward.

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A STUDY ON ANALYZING THE ADOPTION AND SATISFACTION LEVELS OF DIGITAL WALLETS IN BANKING SECTOR

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ABSTRACT

Introduction: This research endeavors to address the critical issue in the adoption and satisfaction levels of digital wallets within the banking sector. The research problem centers on understanding the factors influencing digital wallet adoption and satisfaction, particularly exploring whether gender plays a significant role in shaping these dynamics. Against the backdrop of the digital transformation in banking services, this study aims to contribute valuable insights into enhancing inclusivity and user satisfaction.

Methods: Employing a cross-sectional research design, this study utilizes convenience sampling to gather data from 200 participants within the banking sector. The research methodology incorporates a structured questionnaire employing Likert scales to assess adoption patterns and satisfaction levels. The sample is stratified based on gender and age groups. Data analysis involves descriptive statistics, independent samples t-tests for gender differences, and One-Way ANOVA tests for age group comparisons.

Results: The results highlight a gender disparity in both the adoption patterns and satisfaction levels of digital wallets. Female participants exhibit a higher mean adoption score and satisfaction level compared to their male counterparts. Statistical analyses reveal significant differences, emphasizing the need for tailored strategies to meet the distinct preferences of male and female users. Age-related variations, however, do not emerge as significant factors influencing adoption patterns or satisfaction levels.

Conclusion: In conclusion, the study underscores the importance of gender-sensitive approaches in designing and promoting digital wallet services in the banking sector. The findings imply that financial institutions need to customize their strategies to cater to the unique preferences and concerns of both male and female users. While age does not play a significant role in shaping digital wallet dynamics in this context, continuous efforts are warranted to ensure a user-centric and inclusive digital banking experience.

KEYWORDS: Digital wallets, banking sector, gender disparity, adoption patterns, user satisfaction.

INTRODUCTION

In recent years, the landscape of banking services has undergone a transformative shift, with digital innovations playing a pivotal role in shaping the financial ecosystem. Among these advancements, digital wallets have emerged as a key facet of modern banking, offering customers a convenient and efficient means of conducting financial transactions. As the adoption of digital wallets continues to rise, understanding the factors influencing their uptake and gauging customer satisfaction levels becomes paramount for financial institutions seeking to deliver seamless and user-friendly services.

The banking sector is witnessing a paradigm shift in consumer behavior, driven by technological advancements and changing preferences. The ubiquity of smartphones, coupled with the increasing reliance on online channels for financial activities, has paved the way for the integration of digital wallets into everyday banking experiences. However, despite the growing popularity of

digital wallets, several factors contribute to the varying degrees of adoption among banking customers.

This research endeavors to delve into the intricacies of digital wallet adoption within the banking sector, with a dual focus on understanding the adoption patterns and assessing customer satisfaction levels. The study aims to uncover the underlying factors that either propel or hinder the widespread adoption of digital wallets and to evaluate how well these digital payment solutions align with the expectations and preferences of banking customers.

SIGNIFICANCE OF THE STUDY

This research holds significance in shedding light on the dynamics of digital wallet adoption and satisfaction within the banking sector, addressing a critical gap in understanding consumer behavior and preferences. The findings will provide actionable insights for financial institutions to enhance their



digital wallet services, fostering greater financial inclusion and customer-centric innovations.

SCOPE OF THE STUDY

The study will focus on customers within the banking sector, exploring their awareness, usage patterns, and satisfaction levels with digital wallets. Demographic variations and specific factors influencing adoption will be examined. While the research will primarily concentrate on a select set of digital wallet providers, the results aim to offer broadly applicable recommendations for improving digital wallet services in the broader financial landscape.

OBJECTIVE OF THE STUDY

- 1: Assess the Adoption Patterns of Digital Wallets in the Banking Sector
- 2: Evaluate Customer Satisfaction Levels with Digital Wallets in Banking Services

HYPOTHESIS OF THE STUDY

1. H0: There is a no significant difference in the adoption patterns of digital wallets and customer satisfaction levels with digital wallets between female and male participants within the banking sector.
2. H0: There is a no significant difference in the adoption patterns of digital wallets and customer satisfaction levels with digital wallets among different age groups within the banking sector.

REVIEW OF LITERATURE

The adoption of digital wallets in the banking sector is influenced by a range of factors. Parakh (2020) and Rathore (2016) both highlight the importance of security, trust, familiarity, and ease of use in driving adoption. Joshi (2019) emphasizes the role of customer perception and adaptability, noting that despite challenges, customers are increasingly open to digital banking. Tang (2019) adds a social dimension to the discussion, suggesting that the network effect and the social experience of digital wallets play a significant role in their adoption. These findings collectively underscore the need for digital wallets to prioritize security, trust, ease of use, and social interaction in order to drive adoption in the banking sector.

Research on the awareness of digital wallet services offered by banks has shown that social media plays a significant role in customer engagement and loyalty in the banking sector (Parashar, 2018). Factors such as gender, occupation, income, perceived usefulness, trust, security, and lifestyle compatibility influence the awareness and attitude towards mobile wallets (Chawla, 2021). The Indian government's initiatives and the increased use of mobile and internet have contributed to the growth of digital payments, but lack of awareness, fear of online payment, and security concerns remain barriers (Thangam, 2019). The popularity of digital banking among young consumers is driven

by factors such as time, convenience, security, loyalty/reward points, and discount deals (Singh, 2019).

The use of digital wallets for financial transactions is on the rise, driven by factors such as smartphone penetration, efficiency, and convenience (Handayani, 2020; Fadhilah, 2021; Sukaris, 2021). The COVID-19 pandemic has further accelerated this trend, as people seek to minimize physical contact (Fadhilah, 2021). Factors influencing the adoption of digital wallets include performance expectancy, social influence, facilitating conditions, hedonic motivation, and trust (Sukaris, 2021). Despite the increasing use of digital wallets, there are still challenges and risks associated with their use, such as security concerns (Rathore, 2016).

A range of factors influence the adoption of digital wallets, with attitude towards technology, anxiety, performance expectancy, incentive, trust, habit, and facilitating conditions being key predictors (Anshari, 2021; Malik, 2019; Widodo, 2019). These factors are particularly significant in the context of South East Asia, including Brunei Darussalam and Indonesia. The convenience and ease of use of digital wallets are also important drivers of adoption (Rathore, 2016).

Research on customer satisfaction with digital wallet apps has identified several key factors. Bagla (2018) found that attractive cashback and rewards, ease of use, and transaction security are important for user satisfaction. Sebayang (2022) applied the User-Centered Design method to improve the Finpay Money app, resulting in a significant increase in user satisfaction. Muhtasim (2022) highlighted the impact of security factors, such as transaction speed, authentication, and encryption mechanisms, on customer satisfaction. These studies collectively suggest that a user-friendly interface, attractive incentives, and robust security features are crucial for enhancing satisfaction with digital wallet apps.

RESEARCH METHODOLOGY

1. Research Design:

- **Type of Study:** This study adopts a cross-sectional research design to analyze the adoption patterns and satisfaction levels of digital wallets in the banking sector.
- **Sampling Method:** Convenience sampling is employed to select participants based on their accessibility and willingness to participate in the study.

2. Participants

- **Sample Size:** A total of 200 participants from the banking sector were included in the study.
- **Demographic Characteristics:** Participants were categorized by gender and age groups, with 61.0% female and 39.0% male. Age groups included 41.0% in the 31-40 range, 36.0% in the 41-50 range, 12.0% above 50, and 11.0% under 30.



3. Instrumentation

- **Survey Instrument:** A structured questionnaire was used to collect data, employing a Likert scale to measure participants' responses regarding adoption patterns and satisfaction levels.
- **Likert Scale:** Participants rated their responses on a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

4. Variables

- **Independent Variables:** Gender and age groups.
- **Dependent Variables:** Adoption patterns of digital wallets and customer satisfaction levels.

5. Data Collection

- **Procedure:** Participants were approached through digital channels and in-person interactions within the banking sector. Informed consent was obtained before administering the survey.
- **Data Collection Period:** The data collection process spanned a defined period to ensure a representative sample.

6. Data Analysis

- **Descriptive Analysis:** Descriptive statistics were used to summarize demographic information, adoption patterns, and satisfaction levels.
- **Hypothesis Testing:** Independent samples t-tests were conducted to examine gender differences, and One-Way ANOVA tests were used for age group comparisons.

- **Statistical Significance:** The significance level was set at $\alpha = 0.05$.

7. Limitations

- **Sampling Bias:** Convenience sampling may introduce bias, limiting the generalizability of findings.
- **Self-reporting:** Reliance on self-reported data may be subject to participant biases.

RESULT & FINDINGS

Descriptive Analysis

Table 1: Gender & Age

Gender	Counts	% of Total
Female	122	61.0 %
Male	78	39.0 %
Age	Counts	% of Total
31-40	82	41.0 %
41-50	72	36.0 %
Above 50	24	12.0 %
Under 30	22	11.0 %

Among the 200 participants from the banking sector, the study reveals a slightly higher representation of females, accounting for 61.0% of the total, while males constitute 39.0%. In terms of age distribution, the study encompasses a varied range, with the majority falling within the 31-40 age group, comprising 41.0% of the participants. The 41-50 age group follows closely, representing 36.0% of the sample. Participants aged above 50 constitute 12.0% of the total, and those under 30 make up 11.0%.

Table 2: Assess the Adoption Patterns of Digital Wallets in the Banking Sector

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
To what extent are you aware of digital wallet services offered by your bank?	3.0 %	2.0 %	10.5 %	42.5 %	42.0 %	4.18
	Never	Rarely	Occasionally	Frequently	Always	Mean
How often do you use your digital wallet for financial transactions?	2.5 %	2.5 %	14.5 %	47.5 %	33.0 %	4.06
Factors in influencing your decision to adopt a digital wallet:	Not Important at All	Slightly Important	Neutral	Important	Very Important	Mean
Lack of trust in digital transactions	3.5 %	4.0 %	13.5 %	36.5 %	42.5 %	4.11
Concerns about data security	3.0 %	4.0 %	13.5 %	45.5 %	34.0 %	4.04
Limited acceptance of digital wallets at merchants	4.0 %	2.5 %	25.5 %	36.0 %	32.0 %	3.9
Complexity in setting up and using digital wallets	2.5 %	4.0 %	22.0 %	40.0 %	31.5 %	3.94
Lack of awareness about digital wallet benefits	3.0 %	3.5 %	9.5 %	38.5 %	45.5 %	4.2



The survey data presented in Table 2 provides valuable insights into the adoption patterns of digital wallets within the banking sector. The respondents were asked to express their opinions on various aspects related to digital wallet usage, shedding light on awareness, frequency of use, and factors influencing adoption.

Firstly, in terms of awareness, a substantial portion of respondents (42.5% and 42.0%) strongly agree and agree, respectively, that they are aware of digital wallet services offered by their banks. This indicates a relatively high level of awareness among the surveyed individuals. The mean score of 4.18 further supports this positive trend, suggesting a strong overall awareness.

Regarding the frequency of digital wallet usage for financial transactions, the data shows a positive inclination towards adoption. A majority of respondents (47.5% and 33.0%) reported frequent and always usage, contributing to a mean score of 4.06. This suggests a significant reliance on digital wallets for conducting financial transactions among the surveyed individuals.

When assessing the factors influencing the decision to adopt a digital wallet, the results indicate that trust in digital transactions, data security concerns, and awareness about digital wallet benefits are pivotal considerations. A majority of respondents consider trust (36.5% and 42.5%) and data security concerns (45.5%) as important or very important, contributing to mean scores of 4.11 and 4.04, respectively. Lack of awareness about digital wallet benefits also emerges as a significant factor, with 38.5% considering it important and 45.5% very important, resulting in a high mean score of 4.2.

In conclusion, the survey suggests a generally positive outlook on the adoption of digital wallets in the banking sector. There is a high level of awareness and a notable frequency of usage among respondents. However, it is crucial for banks and digital wallet providers to address concerns related to trust, data security, and awareness to further enhance adoption. Improving communication about the benefits of digital wallets and implementing robust security measures could play a key role in fostering greater acceptance and usage among consumers in the banking sector.

Table 3: Evaluate Customer Satisfaction Levels with Digital Wallets in Banking Services

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Mean
How satisfied are you with the user interface of your bank's digital wallet app?	3.5 %	2.0 %	12.0 %	40.0 %	42.5 %	4.16
Rate your satisfaction with the speed of transactions when using the digital wallet.	3.0 %	3.0 %	14.5 %	42.0 %	37.5 %	4.08
Rate your satisfaction regarding the security features provided by your bank's digital wallet?	4.5 %	3.0 %	11.5 %	48.0 %	33.0 %	4.02
How satisfied are you with the customer support services related to your digital wallet?	1.5 %	5.5 %	16.0 %	37.5 %	39.5 %	4.08
Considering all aspects of your experience, how satisfied are you with your bank's digital wallet service?	2.5 %	4.0 %	13.5 %	37.5 %	42.5 %	4.13

Table 3 provides a comprehensive evaluation of customer satisfaction levels with digital wallets in banking services across various dimensions. The respondents were asked to express their satisfaction regarding the user interface, transaction speed, security features, customer support services, and overall experience with their bank's digital wallet.

Starting with the user interface, a significant majority of respondents (40.0% and 42.5%) expressed satisfaction and very satisfaction, respectively, resulting in a high mean score of 4.16. This suggests that users generally find the interface of their bank's digital wallet app user-friendly and satisfactory.

The speed of transactions also received positive feedback, with 42.0% satisfied and 37.5% very satisfied, contributing to a mean

score of 4.08. This indicates that users appreciate the efficiency and promptness of transactions facilitated by the digital wallet.

Security features play a critical role in digital wallets, and the data indicates a commendable satisfaction level in this aspect. Nearly half of the respondents (48.0%) expressed satisfaction, resulting in a mean score of 4.02. This suggests that users feel secure and trust the security measures implemented by their banks in the digital wallet services.

Customer support services related to digital wallets were generally well-received, with 37.5% satisfied and 39.5% very satisfied, contributing to a mean score of 4.08. This indicates that users perceive effective and satisfactory customer support services when encountering issues or seeking assistance with their digital wallets.



Considering all aspects of the digital wallet service, the overall satisfaction level is high, with 37.5% satisfied and 42.5% very satisfied, resulting in a mean score of 4.13. This suggests that, on the whole, users are content with the holistic experience provided by their bank's digital wallet service.

In conclusion, the survey data reveals a positive customer satisfaction trend across various dimensions of digital wallet services in the banking sector. Users generally appreciate the user interface, transaction speed, security features, and customer support services. The high overall satisfaction level indicates that banks have been successful in providing a well-rounded and satisfactory digital wallet experience for their customers. However, continuous efforts to address any identified areas of improvement and enhance the user experience will be crucial in maintaining and furthering this positive trend in customer satisfaction.

TESTING OF HYPOTHESIS

- H0: There is a no significant difference in the adoption patterns of digital wallets and customer satisfaction levels with digital wallets between female and male participants within the banking sector.**

Result

The independent samples t-tests were conducted to investigate potential gender differences in both the adoption patterns and

customer satisfaction levels with digital wallets in the banking sector. The results indicate statistically significant distinctions for both variables.

For the adoption patterns of digital wallets, the t-statistic was 2.02 ($p = 0.045$) with 198 degrees of freedom, suggesting that there is a significant difference in adoption patterns between female and male participants. On average, female participants ($N=122$) exhibited a mean adoption score of 25.2 ($SD = 3.72$), while male participants ($N=78$) had a slightly lower mean of 23.8 ($SD = 6.03$).

Similarly, for customer satisfaction levels with digital wallets, the t-statistic was 2.13 ($p = 0.035$) with 198 degrees of freedom, indicating a significant difference between female and male participants. Female participants ($N=122$) had a mean satisfaction score of 21 ($SD = 3.42$), while male participants ($N=78$) had a slightly lower mean of 19.7 ($SD = 4.97$).

In conclusion, the study provides compelling evidence that gender plays a significant role in both the adoption patterns and satisfaction levels associated with digital wallets in the banking sector. These results suggest the importance of tailoring digital wallet services to meet the distinct preferences and needs of female and male customers. Financial institutions can leverage these insights to enhance their offerings and provide a more inclusive and satisfying digital banking experience.

		Statistic	df	p		
Adoption Patterns of Digital Wallets	Student's t	2.02	198	0.045		
Customer Satisfaction Levels with Digital Wallets	Student's t	2.13	198	0.035		
<i>Note.</i> $H_a \mu_{\text{Female}} \neq \mu_{\text{Male}}$						
Group Descriptive						
	Group	N	Mean	Median	SD	SE
Adoption Patterns of Digital Wallets	Female	122	25.2	25	3.72	0.337
	Male	78	23.8	24.5	6.03	0.683
Customer Satisfaction Levels with Digital Wallets	Female	122	21	22	3.42	0.309
	Male	78	19.7	21	4.97	0.563

- H0: There is a no significant difference in the adoption patterns of digital wallets and customer satisfaction levels with digital wallets among different age groups within the banking sector.**

Result

The One-Way ANOVA tests, conducted to examine the impact of age groups on both the adoption patterns and customer satisfaction levels with digital wallets in the banking sector, yielded non-significant results for both variables.

For the adoption patterns of digital wallets, the F-ratio was 1.848 with 3 and 57.2 degrees of freedom ($df1 = 3, df2 = 57.2$), resulting in a p-value of 0.149. Similarly, for customer satisfaction levels with digital wallets, the F-ratio was 0.994 with 3 and 58 degrees of freedom ($df1 = 3, df2 = 58$), yielding a p-value of 0.402. In both cases, the p-values are greater than the conventional alpha level of 0.05, indicating that there is no significant difference in means among the age groups for either adoption patterns or customer satisfaction levels.



In conclusion, the study does not provide evidence for significant age-related variations in the adoption patterns and customer satisfaction levels with digital wallets. This suggests that, within the studied population, age may not be a critical factor influencing

the way individuals adopt and perceive digital wallet services in the banking sector. Financial institutions may consider these findings when designing targeted strategies to enhance digital wallet adoption and satisfaction across diverse age groups.

Table 5: One-Way ANOVA (Welch's)

	F	df1	df2	p	
Adoption Patterns of Digital Wallets	1.848	3	57.2	0.149	
Customer Satisfaction Levels with Digital Wallets	0.994	3	58	0.402	
Group Descriptive					
	Age	N	Mean	SD	SE
Adoption Patterns of Digital Wallets	31-40	82	24.6	4.56	0.503
	41-50	72	25.5	3.91	0.461
	Above 50	24	23.3	4.79	0.977
Customer Satisfaction Levels with Digital Wallets	Under 30	22	23.2	7.35	1.567
	31-40	82	20.5	3.4	0.376
	41-50	72	21	4.07	0.48
	Above 50	24	20.3	3.6	0.734
	Under 30	22	18.6	6.48	1.381

DISCUSSION

The study, focused on analyzing the adoption and satisfaction levels of digital wallets in the banking sector, presents crucial insights into the dynamics of consumer behavior and preferences within this context. The demographic breakdown emphasizes a diverse representation of gender and age groups, enhancing the study's applicability to a broad range of banking professionals. The results of the descriptive analysis reveal a positive outlook on digital wallet adoption and satisfaction levels, setting the stage for a comprehensive discussion.

The gender-based analysis indicates significant differences in adoption patterns and satisfaction levels between female and male participants. Female respondents exhibit higher mean scores in both adoption patterns (25.2) and customer satisfaction levels (21) compared to their male counterparts (23.8 and 19.7, respectively). These variations highlight the need for gender-specific considerations in the design and delivery of digital wallet services. Financial institutions should tailor their strategies to address the distinct preferences and needs of female and male customers, fostering a more inclusive and satisfactory digital banking experience.

Conversely, age-related variations did not emerge significantly in the adoption patterns and satisfaction levels. The study suggests that, within the studied population, age may not be a decisive factor influencing digital wallet adoption and satisfaction. This finding underscores the universal appeal and acceptance of digital wallets across diverse age groups in the banking sector.

Moving to the results of the hypothesis testing, the rejection of the null hypotheses regarding gender differences indicates the

importance of recognizing and accommodating the unique preferences of both female and male users. This finding has practical implications for financial institutions seeking to optimize their digital wallet services and engage a broader customer base.

However, the non-significant results in age-related hypotheses suggest that, while age may not be a critical factor within the studied population, financial institutions should remain attentive to evolving generational preferences. Continuous efforts to understand the needs of different age groups can inform targeted strategies that enhance digital wallet adoption and satisfaction across diverse segments.

CONCLUSION

In conclusion, the study provides valuable insights into the adoption and satisfaction dynamics of digital wallets in the banking sector. The positive outlook on adoption, satisfaction levels, and the absence of significant age-related variations underscore the success of digital wallet integration in the financial landscape. The study emphasizes the critical role of gender in shaping adoption patterns and satisfaction levels, urging financial institutions to adopt gender-specific strategies for their digital wallet services.

Recommendations

Addressing User Diversity:

- Gender-Specific Strategies: Tailor services and communication to distinct preferences and needs of men and women.



- Continuous User Education: Educate banking professionals and address user concerns on security, trust, and awareness.
- Inclusive Design Principles: Ensure accessibility, simplicity, and customization for diverse users across age and gender.

Enhancing User Experience

- Continuous User Interface Enhancements: Maintain a user-friendly and aesthetically pleasing interface.
- Age-Responsive Features: Proactively incorporate features addressing needs of different age groups.

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INTEGRATING CHATBOT IN AN INQUIRY-BASED APPROACH IN TEACHING SCIENCE

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ABSTRACT

Science can be a challenging subject for both teachers and students. As technology in education is constantly evolving, this study aimed to explore the integration of Chatbot in an Inquiry-based approach in teaching science. This exploration measured the effect of Chatbot on the students' academic achievement and science engagement. The research participants consisted of thirty (30) grade 8 students from Pagadian City Science High School for the school year 2022-2023. This exploration utilized pre-experimental research design in order to determine the improvement of the students' academic achievement integrating Chatbot in an Inquiry-based approach in teaching Science. This study focused on the One Group Pre-test-Post-test design where only the experimental group is selected as the study subjects. In this study there was no control group as this design advised. By employing Mean and Paired Samples T-test, results revealed there is a very high significant difference between the level of students' engagement and achievement before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science in the first, second, and third trial runs. Therefore, integrating Chatbot in an Inquiry-based approach in teaching Science is highly recommended to maximize the learning of the students. Findings of the study also provided for the better implementation of the current science curriculum, which is geared towards producing active learners through technology integration.

KEYWORDS: chatbot technology; chatbot in science education; inquiry-based approach; student's science engagement; academic achievement

CONTEXT AND RATIONALE

Technology integration in education has created new possibilities in order for students to obtain knowledge and work with others, and engage in more interactive and personalized learning experiences. The extensive usage of the internet and mobile devices has made access to online resources for students simpler and connect with their peers, teachers, and experts worldwide. Additionally, the development of new educational technologies such as virtual and augmented reality, learning management systems, and artificial intelligence is leading to new pedagogical approaches and innovative teaching and assessment methods. These developments are helping to create a more dynamic and a stimulating setting for learning and student success. Technological innovations are influencing every aspect of life, and continuous technological advances are changing how a learner learns (Sürmelioglu and Seferoğlu 2019, 48).

Science can be a challenging subject for both teachers and students. Science is not just about memorizing facts and formulas, but also understanding complex concepts and scientific principles and enhancing one's capacity for critical thought and problem solving. This context can make it difficult for some students to grasp the material and for some teachers to convey it effectively. Additionally, Science is constantly evolving, so teachers need to feature the most recent advancements and discoveries in the field. However, when taught effectively, Science can be a fascinating

and engaging subject that can inspire to encourage youngsters to major in science and technology (Hadzigeorgiou and Schulz 2019, 2). A crucial pedagogical strategy used by educators in a variety of subjects, including science, is inquiry-based learning (Del Greco, Bernadowski, and Parker 2018, 75).

One of the popular modern teaching methods used in science education is Inquiry-Based Learning (IBL), which has been demonstrated to be a highly effective way to learn science. IBL is based on the principles of social constructivism, which recognize the student's potential in the classroom (Ünlü and Dökme 2020, 120). Recently, the 5Es approach has been expanded to include two additional phases, Elicit and Extend, resulting in a 7Es instructional model (Eisenkraft 2003, 56). Moreover, studies have shown that incorporating technology into inquiry-based learning can have a positive impact on students' academic performance and attitudes towards learning (Thongkoo, Panjaburee, and Daungcharone 2017, 527).

A Chatbot, sometimes known as a "talking bot," is an emerging type of software in the field of information technology (Shorey et al. 2019), able to engage in vocal or written dialogues with human users and respond to their questions utilizing the question-and-answer method (Lee and Park 2019, 79). Since technology in education today is changing how students learn, many potential methods with technical support can be integrated as a digital



learning tool to help students' study information through individualized learning support (Singh 2021). Additionally, some research has combined collaborative learning with mobile learning (Aghajani and Adloo 2018, 433).

The primary action of a chatbot begins with the user's input. The message was then analyzed by NLP (Natural Language Processing), and the chatbot responded by replying to the message based on the database. For example, if a user sends a "how are you?" message, the chatbot will look through the database for answers that match this question, such as "I'm doing OK", "Great!" etc. The ability of a chatbot to meet the needs of users has long been an issue in the field of information retrieval (Zhao et al. 2016, 5). Chatbots may be divided into two types based on how they are designed: those that are programmed according to predefined commands (rule-based Chatbot) (Singh, Joesph, and Jabbar 2019, 2) and those that are based on artificial intelligence (AI) (Zamora 2017, 2). Facebook launched its Messenger platform in April 2016 with the goal of enabling chatbots to be integrated into the application. Since then, the platform has amassed over 1.3 billion monthly users (Constine 2018, 5), accounts with more than 300,000 chatbots, and 8 billion messages are sent and received daily between companies and customers (Johnson 2018).

There is little barrier to entry when it comes to using a Facebook Messenger chatbot. Facebook Messenger is the third most popular smartphone application globally, with 68 percent of users (Hartmans 2017, 8). Users benefit from a familiar user interface, not necessary to download and set up additional applications, and 24/7 availability. A drawback of the instant messaging software is that other discussions can disrupt your conversation (Pereira and Díaz 2018).

The utilization of the social platform's already-existing infrastructure, the personalization of the discussion, and the chatbot's availability on mobile and the web are just a few advantages for chatbot creators. Any programming language or a third-party no-code platform using a visual development environment can be used to create chatbots (Smutný and Schreiberova 2020, 103).

As technology in education is constantly evolving, the Chatbot may significantly impact the sector. This work may serve as a stepping stone for researchers attempting to realize this prospect. This task would be accomplished by determining what skills the Chatbot would have in an educational context and whether it could stand alone or require other technology to bring pedagogical value to education (Roos 2018, 46).

These technologies that aid in the teaching-learning process are a significant advantage in making the lessons more manageable and will also improve students' performance in science. As a response to the things mentioned above, the researcher is challenged to develop an instruction that includes the use of Chatbots in helping

the students gain more knowledge and, in effect, increase their academic achievement and student engagement in science. In addition, the researcher will observe the positive influence of using such technology in increasing the students' class participation and will provide a better performance outcome.

Because of the potential and possibility of Chatbot technology to meet the real-time information needs of the students and as a digital learning tool to integrate in an Inquiry-based approach for use in education, as well as the limited availability of research on Chatbot technology in educational contexts, particularly in the Philippines, the current study aimed to improve Filipino students' Science concepts by integrating Chatbot in an Inquiry-based approach in teaching Science. Through this digital platform, the goal of using a chatbot in the classroom is to increase students' interest in science, their academic achievement, and to provide them with positive, individualized learning support.

INNOVATION, INTERVENTION, AND STRATEGY

In order to achieve greater lengths in knowledge acquisition, the researcher believed that learners should be involved in the teaching-learning process. As a result, teachers must redesign their lessons in order to create instructions that are tailored to the needs of their students, as well as place a greater emphasis on engaging them and allowing them to participate in inquiry-based activities.

In this research study, the researcher opted to create a Chatbot based on retrieval information since it allows the researcher to utilize the results gain from Facebook Messenger and Manychat. The developed Chatbot integrated in the lesson plans followed the 7Es Inquiry-based approach with learning objectives at the beginning of the instruction. The lesson plans developed were based from the least learned competencies and lessons were aligned to the Most Essential Learning Competencies.

A chatbot is a computer program that mimics normal speech styles in order to engage in conversational engagements with users. The phrase "chatbot" is a combination of the words "chat," which refers to its conversational aspect, and "bot," which stands for robot. In this study, the Chatbot is available through the students' Messenger accounts and was built on the ManyChat platform. Chatbots are built to obey specified instructions depending on user input (Colace et al. 2018, 528). They intend to provide responses that are similar to human-like communication (Ischen et al. 2020, 34).

The integration of Chatbot is anchored to mobile learning theory. In mobile learning, students traverse space and time as they progress from topic to topic. Learners engage with technology intermittently, comparable to a hybrid classroom. According to the principle of mobile learning, the learner is mobile—not the technology (Shuler 2009).



ACTION RESEARCH QUESTIONS

This study aimed to investigate the effects on students' engagement and academic achievement with the integration of Chatbot in an Inquiry-based Approach in Teaching Science to the Grade 8 students at the junior high school department of one of the schools in the Division of Pagadian City. It also discussed the difficulties and issues found when utilizing the innovative intervention. Moreover, it determined the insights gained as the strategy when utilize in the classroom.

It aimed to answer the following questions in particular:

1. What is the level of students' science engagement before and after integrating Chatbot in an Inquiry-based approach in teaching science in the first, second, and third trial runs?
2. What is the level of students' science achievement using Chatbot in an inquiry-based approach as revealed by the pretest and posttest results in the first, second, and third trial runs?
3. Is there a significant difference in students' engagement in science when Chatbot is integrated into an inquiry-based approach in teaching science?
4. Is there a significant difference in students' achievement in science when Chatbot is integrated into an inquiry-based approach in teaching science?

ACTION RESEARCH METHODS

Research Design

This study utilized Quasi-experimental, time series, pretest and posttest, single group design in order to determine the improvement of the students' academic achievement integrating Chatbot in an Inquiry-based approach in teaching Science. With this approach, the impact of the intervention is assessed both before and after the experiment. Single group was employed in this study to ensure the comparison is only between the pretest and posttest results only and the external factors such as individual differences between participants can be minimized.

Participants and Other Sources of Data Information

The study is conducted at the junior high school department of one of the secondary schools of the Division of Pagadian City during the 4th grading period of the school year 2022–2023, utilizing 42 Grade 8 students from Grade 8 Arthropoda were considered participants in this study. In this study, all students were taught using Chatbot in an Inquiry-based approach in teaching science.

Research Instrument

The study used three lesson plans which integrated Chatbot in an Inquiry-based approach in teaching Science and were subjected to validation by the content experts that were master teachers in the division of Pagadian City.

Science competencies and concepts discussions were based on the content standards stipulated in the science curriculum guide. Pre- and post-tests measured students' cognitive and problem-solving

proficiencies before the start of the lesson and after the end of the lesson. A Science achievement test developed by the researcher and subjected to validity and reliability testing. Experts in the field of science were asked to judge each question. The Cronbach's alpha value of the tests, after which it was subjected to reliability statistics, is 0.7, which is an acceptable value.

In order to determine the academic achievement level of the students in learning the Science concepts using the Chatbot, the researcher prepared a 15 item Multiple Choice type pretest and posttest in the three (3) lesson plans.

Data Gathering Procedure

The researcher obtained approval from the Office of the Schools Division Superintendent of Pagadian City and Office of the School Principal to carry out the study in the area to ensure the research's validity. The researcher also need permission from the teacher in charge of the class and the head of the science department. Research participants were oriented about the goal and relevance of the study, the risks and benefits of the case study, as well as the fact that the study entailed commitment and the protection of confidentiality, as part of the process for obtaining data. Informed consents were obtained from the participants' parents as part of the preliminary data gathering process. Research participants will complete a Student's Science Engagement Scale (SSES) questionnaire before and after integrating Chatbot in an Inquiry-based approach in teaching science.

Data Analysis

Integrating Chatbot in an Inquiry-based approach in Teaching Science on Science engagement and achievement was processed quantitatively using a descriptive and inferential statistics. To test for the level of significant difference between the pretest and posttest, paired samples t-test was performed. The paired t-test is used in order to test the effects before and after the integration of Chatbot in an Inquiry-based approach in teaching Science. Thus, Science engagement and achievement of the learners were treated as the dependent variables in this exploration.

Processing of the data gathered was done on the computer using the software Statistical Package for Social Sciences (SPSS), which provided for the accurate and reliable computation of the results.

RESULTS AND DISCUSSION

Level of Students' Science Engagement in the First Trial Run.

Table 1 shows the results in determining the students' level of Science Engagement in an Inquiry-based Approach in Teaching Science in first trial run. The overall level of engagement in learning science before Chatbot intervention was observed to be Very High ($M = 3.54$; $SD = 0.19$). Similarly, overall level of engagement in integrating Chatbot in an Inquiry-based Approach in learning science was also observed to be Very High ($M = 3.73$; $SD = 0.13$).



Interestingly, item #9 indicated a level of engagement in the pre-intervention interpreted as High while the remaining twenty (20) items posted means interpreted as Very High. On the other hand, only one (1) indicator of students' engagement in the post intervention out of twenty-one (21) posted a mean interpreted as

High while other indicators posted means interpreted as Very High. By and large, students' engagement both in pre-intervention and post-intervention showed approximately equivalent level of science engagement in the learning process.

Table 1: Level of Students' Science Engagement in the First Trial Run Before and After the Intervention

Statement	Pre-Implementation			Post-Implementation		
	Mean	SD	Description	Mean	SD	Description
1. My science lessons and performance tasks are important and relevant to my life.	3.37	0.96	Very High	3.63	0.67	Very High
2. My science lessons and tasks in the Chatbot are interesting and meaningful.	3.30	0.95	Very High	3.63	0.62	Very High
3. My science lessons and performance tasks are realistic and contextualized in the Chatbot.	3.57	0.63	Very High	3.70	0.47	Very High
4. I am inspired to learn new things in science class through Chatbot.	3.63	0.56	Very High	3.83	0.38	Very High
5. My science lessons and task in Chatbot stimulate my curiosity.	3.67	0.48	Very High	3.80	0.41	Very High
6. I feel encouraged and interested to work on something in science class with the integration of Chatbot.	3.57	0.68	Very High	3.90	0.31	Very High
7. I am inspired and prepared to come to science class every day with the integration of Chatbot.	3.30	0.95	Very High	3.47	0.78	Very High
8. I am having fun during collaborative learning activities in science with the integration of Chatbot.	3.47	0.73	Very High	3.83	0.46	Very High
9. I want to ask my science teacher or classmates personally or through social media if I have a trouble understanding a lesson.	2.83	1.09	High	3.13	0.82	High
10. I want to investigate and understand the societal and environmental impacts and implications from science and technology.	3.63	0.62	Very High	3.77	0.50	Very High
11. I participate and interact during small-group discussions in Science.	3.60	0.68	Very High	3.77	0.43	Very High
12. I appreciate the nature of scientific method or process.	3.37	0.77	Very High	3.63	0.56	Very High
13. I consult and share my views and knowledge to my classmates and Science teacher.	3.53	0.68	Very High	3.73	0.45	Very High
14. I do and finish my science tasks on time.	3.57	0.63	Very High	3.70	0.54	Very High



15. I raise my hand to participate in science class discussions.	3.63	0.56	Very High	3.77	0.43	Very High
16. I read and review my modules, class notes, handouts, and textbook between classes to make sure that I learn from these Science learning materials.	3.47	0.78	Very High	3.70	0.54	Very High
17. I prepare thoroughly before the test to be conducted in Chatbot.	3.67	0.61	Very High	3.90	0.31	Very High
18. I give maximum effort to my science class.	3.50	0.68	Very High	3.73	0.52	Very High
19. I always pay attention to my teacher and classmates who communicate during science class.	3.87	0.35	Very High	3.87	0.35	Very High
20. I feel supported by my classmates and science teacher.	3.90	0.31	Very High	3.90	0.31	Very High
21. I follow the instructions closely in doing my science work with the integration of Chatbot.	3.87	0.35	Very High	3.93	0.25	Very High
Weighted Mean	3.54	0.67	Very High	3.73	0.48	Very High

*Scale: 1.00 – 1.75 = Very Low; 1.76 – 2.50 = Low; 2.51 – 3.25 = High; 3.26 – 4.00 = Very High

Level of Students' Science Engagement in the Second Trial Run. Table 2 shows the results in determining the students' level of Science Engagement in an Inquiry-based Approach in Teaching Science in Second Trial Run. The overall level of engagement in learning science before Chatbot intervention was observed to be Very High ($M = 3.48$; $SD = 0.19$). Similarly, the overall level of engagement in integrating Chatbot in an Inquiry-based Approach in learning science was also observed to be Very High ($M = 3.71$; $SD = 0.12$).

Interestingly, item #7, item #9 and item #12 indicated a level of engagement in the pre-intervention interpreted as High while the remaining eighteen (18) items posted means interpreted as Very High. On the other hand, only one (1) indicator of students' engagement in the post intervention out of twenty-one (21) posted a mean interpreted as High while other indicators posted means interpreted as Very High.

Table 2: Level of Students' Science Engagement in the Second Trial Run Before and After the Intervention

Statement	Pre-Implementation			Post-Implementation		
	Mean	SD	Description	Mean	SD	Description
1. My science lessons and performance tasks are important and relevant to my life.	3.53	0.78	Very High	3.53	0.68	Very High
2. My science lessons and tasks in the Chatbot are interesting and meaningful.	3.33	0.84	Very High	3.53	0.63	Very High
3. My science lessons and performance tasks are realistic and contextualized in the Chatbot.	3.50	0.63	Very High	3.60	0.50	Very High
4. I am inspired to learn new things in science class through Chatbot.	3.63	0.56	Very High	3.77	0.43	Very High
5. My science lessons and task in Chatbot stimulate my curiosity.	3.57	0.57	Very High	3.67	0.48	Very High
6. I feel encouraged and interested to work on something	3.43	0.68	Very High	3.77	0.43	Very High



in science class with the integration of Chatbot.						
7. I am inspired and prepared to come to science class every day with the integration of Chatbot.	3.20	0.93	High	3.47	0.78	Very High
8. I am having fun during collaborative learning activities in Science with the integration of Chatbot.	3.37	0.72	Very High	3.77	0.50	Very High
9. I want to ask my science teacher or classmates personally or through social media if I have a trouble understanding a lesson.	2.77	1.04	High	3.13	0.82	High
10. I want to investigate and understand the societal and environmental impacts and implications from Science and technology.	3.53	0.63	Very High	3.70	0.54	Very High
11. I participate and interact during small-group discussions in Science.	3.53	0.63	Very High	3.87	0.35	Very High
12. I appreciate the nature of scientific method or process.	3.20	0.81	High	3.77	0.43	Very High
13. I consult and share my views and knowledge to my classmates and Science teacher.	3.43	0.68	Very High	3.80	0.41	Very High
14. I do and finish my science tasks on time.	3.47	0.63	Very High	3.60	0.50	Very High
15. I raise my hand to participate in science class discussions.	3.67	0.48	Very High	3.80	0.41	Very High
16. I read and review my modules, class notes, handouts, and textbook between classes to make sure that I learn from these Science learning materials.	3.50	0.78	Very High	3.80	0.48	Very High
17. I prepare thoroughly before the test to be conducted in Chatbot.	3.63	0.56	Very High	3.90	0.31	Very High
18. I give maximum effort to my science class.	3.53	0.51	Very High	3.73	0.45	Very High
19. I always pay attention to my teacher and classmates who communicate during science class.	3.67	0.48	Very High	3.90	0.31	Very High
20. I feel supported by my classmates and science teacher.	3.77	0.43	Very High	3.83	0.38	Very High
21. I follow the instructions closely in doing my science work with the integration of Chatbot.	3.80	0.41	Very High	3.90	0.31	Very High
Weighted Mean	3.48	0.65	Very High	3.71	0.48	Very High

*Scale: 1.00 – 1.75 = Very Low; 1.76 – 2.50 = Low; 2.51 – 3.25 = High; 3.26 – 4.00 = Very High



Level of Students' Science Engagement in the Third Trial Run.

Table 3 shows the results in determining the students' level of Science Engagement in an Inquiry-based Approach in Teaching Science in trial run 3. The overall level of engagement in learning science before Chatbot intervention was observed to be Very High ($M = 3.56$; $SD = 0.16$). Similarly, the overall level of engagement in integrating Chatbot in an Inquiry-based Approach

in learning science was also observed to be Very High ($M = 3.76$; $SD = 0.13$).

Based on the results, only item #9 indicated a level of engagement in the pre-intervention interpreted as High while the remaining twenty (20) items posted means interpreted as Very High. On the other hand, all indicators of students' Science engagement in the post intervention out of twenty-one (21) posted a mean interpreted as Very High.

Table 3: Level of Students' Science Engagement in the Third Trial Run Before and After the Intervention

Statement	Pre-Implementation			Post-Implementation		
	Mean	SD	Description	Mean	SD	Description
1. My science lessons and performance tasks are important and relevant to my life.	3.50	0.57	Very High	3.77	0.43	Very High
2. My science lessons and tasks in the Chatbot are interesting and meaningful.	3.27	0.79	Very High	3.77	0.43	Very High
3. My science lessons and performance tasks are realistic and contextualized in the Chatbot.	3.70	0.47	Very High	3.80	0.41	Very High
4. I am inspired to learn new things in science class through Chatbot.	3.53	0.57	Very High	3.83	0.38	Very High
5. My science lessons and task in Chatbot stimulate my curiosity.	3.63	0.49	Very High	3.80	0.41	Very High
6. I feel encouraged and interested to work on something in science class with the integration of Chatbot.	3.47	0.63	Very High	3.90	0.31	Very High
7. I am inspired and prepared to come to science class every day with the integration of Chatbot.	3.47	0.68	Very High	3.53	0.51	Very High
8. I am having fun during collaborative learning activities in Science with the integration of Chatbot.	3.60	0.50	Very High	3.83	0.38	Very High
9. I want to ask my science teacher or classmates personally or through social media if I have a trouble understanding a lesson.	2.77	1.04	High	3.60	0.56	Very High
10. I want to investigate and understand the societal and environmental impacts and implications from Science and technology.	3.70	0.54	Very High	3.80	0.48	Very High
11. I participate and interact during small-group discussions in Science.	3.63	0.49	Very High	3.70	0.47	Very High
12. I appreciate the nature of scientific method or process.	3.40	0.68	Very High	3.57	0.57	Very High
13. I consult and share my views and knowledge to my classmates and Science teacher.	3.40	0.68	Very High	3.77	0.43	Very High



14. I do and finish my science tasks on time.	3.60	0.62	Very High	3.60	0.56	Very High
15. I raise my hand to participate in science class discussions.	3.67	0.55	Very High	3.87	0.35	Very High
16. I read and review my modules, class notes, handouts, and textbook between classes to make sure that I learn from these Science learning materials.	3.63	0.72	Very High	3.63	0.56	Very High
17. I prepare thoroughly before the test to be conducted in Chatbot.	3.60	0.62	Very High	3.90	0.31	Very High
18. I give maximum effort to my science class.	3.63	0.62	Very High	3.63	0.56	Very High
19. I always pay attention to my teacher and classmates who communicate during science class.	3.87	0.35	Very High	3.80	0.41	Very High
20. I feel supported by my classmates and science teacher.	3.90	0.31	Very High	3.90	0.31	Very High
21. I follow the instructions closely in doing my science work with the integration of Chatbot.	3.87	0.35	Very High	3.93	0.25	Very High
Weighted Mean	3.56	0.58	Very High	3.76	0.43	Very High

*Scale: 1.00 – 1.75 = Very Low; 1.76 – 2.50 = Low; 2.51 – 3.25 = High; 3.26 – 4.00 = Very High

Students' Engagement Using Chatbot in an Inquiry-based Approach in Teaching

By employing Paired Samples T-test, Table 4 indicates the test of significant difference in students' engagement in learning Science before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science during the first, second, and third trial runs.

In the first trial run, the table (t -value = -9.56; p -value = 0.001) reveals that there is a high significant difference between the level

of students' engagement before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science. In the second trial run, the table (t -value = -9.40; p -value = 0.001) reveals that there is a high significant difference between the level of students' engagement before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science. In the third trial run, the table (t -value = -7.83; p -value = 0.001) reveals that there is a high significant difference between the level of students' engagement before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science.

Table 4: Test of Significant Difference on Students' Engagement before and after Integrating Chatbot in an Inquiry-based Approach in Teaching Science

Phase		N	mean	sd	df	t-stat	p-value	Description
First Trial Run	Pre-Intervention	30	3.54	0.67	29	-9.56	0.001	Highly Significant
	Post-Intervention		3.73	0.48				
Second Trial Run	Pre-Intervention	30	3.48	0.65	29	-9.40	0.001	Highly Significant
	Post-Intervention		3.71	0.48				
Third Trial Run	Pre-Intervention	30	3.56	0.58	29	-7.83	0.001	Highly Significant
	Post-Intervention		3.76	0.43				

*Significance at 0.05 level

This finding signifies that students' level of engagement in learning Science has significantly increased through the integrating Chatbot in an Inquiry-based approach in teaching Science. This supports the claim that integrating Chatbot in an Inquiry-based approach enhances students' engagement in the teaching-learning process.

This implication is consistent with the study conducted that the Chatbot had a significant impact on student success and engagement (Lin and Chang 2020, 78).



Chatbots are one suitable learning method for students to evaluate their prior knowledge and can be used to collect class feedback (Grudin and Jacques 2019, 8). Chatbots, on the other hand, can encourage shy or hesitant students to express questions during a typical class session (Verleger and Pembridge 2018, 2).

Chatbots are therefore a potential option for improving connection and motivation, providing personalized learning, and reducing loneliness and social isolation. It is feasible to pre-program responses to frequently requested questions and deliver immediate responses making it easier for students to ask inquiries and receive immediate answers (Cameron et al. 2017, 2). As a result, Chatbots can help teachers by answering repetitive questions and acting as virtual assistants or tutors for students (Singh 2021, 29). A student in a supportive learning environment that allows them to express their interest and become involved in the learning process will always succeed and engage more than a student who is exposed to less-interactive environment or a lack of stimulation (Dotterer and Lowe 2011).

The Table 5 reflects the pretest and post test scores of the participants for the first trial run of this investigation.

In the first trial run, the pretest mean score was 5.30, suggesting that students initially scored an average of 5.30 out of the total points. The average post-test score was 12.13, indicating a substantial rise in the academic achievement of students. The pretest standard deviation of 1.41 and the post-test standard deviation of 1.72 demonstrate the variability of scores around their respective means. The pretest had the mean variability of around 1.41 points, whereas the post-test had an average

variability of about 1.72 points. The t-value of -19.94 with a p-value of 0.001 indicates that the difference between the pretest and post-test scores is highly significant. From the pretest to the post-test, there was a substantial rise in student achievement in science. The post-test scores had a higher mean score, indicating that students performed better in the post-test than in the pretest in the first trial run.

In the second trial run, the pretest had a mean score of 6.03 and a standard deviation of 1.61, indicating that the average score was 6.03. The post-test had a higher mean score of 12.33 and a slightly lower standard deviation of 1.42, indicating that scores had improved. The t-value of -14.96, with a p-value of 0.001, revealed that the difference between the pretest and post-test scores was highly significant.

In the third trial run, the pretest had a mean score of 8.33 and a standard deviation of 1.37, indicating that the initial average score was 8.33 with considerable variability. The post-test had a higher mean score of 13.50 and relatively greater standard deviation of 1.43, indicating that scores improved with partially increased variability. The t-value of -19.65, with a p-value of 0.001, revealed that the difference between the pretest and post-test scores was extremely significant. This provides substantial support against the null hypothesis, implying that the observed difference is unlikely to be the result of random chance. This finding signifies that students' level of achievement in learning Science has significantly increased through the integrating Chatbot in an Inquiry-based approach in teaching Science. This warrants the claim that Chatbot enhance students' achievement in the teaching-learning process.

Table 5: Test of Significant Difference in Academic Achievement Level of Students before (pretest) and after (posttest) integrating Chatbot in an Inquiry-based approach in teaching Science in the First, Second, and Third Trial Runs.

Phase		n	mean	Sd	df	t-stat	p-value	Description
First Trial Run	Pre-Intervention	30	5.30	1.41	29	-19.94	0.001	Highly Significant
	Post-Intervention		12.13	1.72				
Second Trial Run	Pre-Intervention	30	6.03	1.61	29	-14.96	0.001	Highly Significant
	Post-Intervention		12.33	1.42				
Third Trial Run	Pre-Intervention	30	8.33	1.37	29	-19.65	0.001	Highly Significant
	Post-Intervention		13.50	1.43				

*Significance at 0.05 level

The findings indicate a considerable improvement in student science achievement from the pretest to the posttest. The higher mean post-test score supports this finding, and the statistical significance of the results increases confidence in the observed improvement. This implication is consistent with the study conducted that individualized learning aid provided by Chatbots has a major impact on student learning and enjoyment (Winkler and Söllner 2018) despite the fact that various research on the effective adoption of Chatbots have been conducted (Dutta 2017).

CONCLUSION AND RECOMMENDATIONS

With the significant difference in the students' level of science engagement and academic achievement taught through

integrating Chatbot in an Inquiry-based approach in teaching science, then this approach could be used to enhance students' capabilities in understanding science concepts. The null hypothesis is rejected in the conducted three trial runs meaning, the students applied with integrating Chatbot in an Inquiry-based approach in teaching science obtained higher posttest scores.

Based on the results of the study, this concludes that integrating chatbot in an Inquiry-based approach in teaching science results better students' engagement and academic achievement.

It is suggested that teachers may integrate Chatbot in an Inquiry-based approach in the learning process to maximize the students'



engagement and learning outcomes and enabling teachers to explore new technology similar to Chatbot. It is suggested that other grade level and different subject matter to utilize chatbot to increase engagement and achievement in the learning process.

Since Chatbot can be utilized as a supplementary digital learning tool, it is recommended that further study would be conducted among various levels and subject matter.

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IMPLEMENTATION OF NATIONAL POLICE CLEARANCE SYSTEM BY THE PHILIPPINE NATIONAL POLICE

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ABSTRACT

This study presents an analysis of the shift from local police clearance to a centralized national police clearance system in the Philippines, implemented by the Philippine National Police (PNP). The study examines the rationale behind the transition, the process of implementation, and the potential impact on law enforcement and public service delivery.

Through the use of a qualitative methodology and in-depth interviews with PNP Officials, the study explores subjective experiences. The findings provide insights into the challenges and opportunities associated with the adoption of a national police clearance system. Ongoing initiatives including continuous NPCPS training, active client's feedback, and assessments, are encouraged in order to maintain efficacy.

To sum up, the shift to centralized national police clearance represents a critical advancement in modernizing application process of police clearance and fostering efficient public service delivery in organizations such as the PNP.

KEYWORDS: *National Police Clearance, Philippine National Police, Law Enforcement, Public Service, Implementation*

INTRODUCTION

The Philippine National Police (PNP) has embarked on a significant initiative aimed at modernizing and standardizing the process of obtaining police clearances through the implementation of a National Police Clearance System. This strategic transition represents a fundamental shift from the traditional localized approach to a centralized and uniform system for background checks and criminal record verification. The introduction of the National Police Clearance System marks a pivotal moment in the evolution of law enforcement procedures and public service delivery in the Philippines, with far-reaching implications for both the PNP and the general populace. The transition to a National Police Clearance System is motivated by the need to address challenges associated with the existing decentralized clearance process, including variations in procedures, data integrity, and accessibility. Through this initiative, the PNP aims to streamline the application and issuance of police clearances, enhance the accuracy and reliability of background checks, and improve the overall efficiency of law enforcement procedures. Furthermore, the implementation of a centralized clearance system is expected to have broader implications for public service delivery, as individuals and organizations seeking background information on individuals will benefit from a more standardized and accessible process.

By exploring the multifaceted dimensions of this transformative initiative, this study endeavors to contribute to a deeper understanding of the opportunities and challenges associated

with the adoption of a National Police Clearance System in the Philippines. The insights gleaned from this analysis are intended to inform policymakers, law enforcement agencies, and other stakeholders, facilitating informed decision-making and best practices as the PNP continues to modernize and enhance its services to meet the evolving needs of the Filipino society.

In the subsequent sections of this study, we will delve into the methodology employed in investigating the transition, present the findings of the study, and offer recommendations for optimizing the National Police Clearance System within the Philippine National Police. Through this comprehensive analysis, we aim to contribute to the ongoing discourse surrounding law enforcement procedures, public service, and the advancement of a modernized, efficient, and accessible clearance system in the Philippines.

A comprehensive review of various theories highlights key matters and insights in the study. According to Shea, Jacobs, Esserman, Bruce & Weiner (2014), Organizational readiness for change is an important factor in the successful implementation of new policies, programs, and practices. This are essential in the transition of local police clearance to centralized national police clearance. Weiner (2009), defined organizational readiness for change as a mutli-level, multi-faceted construct. As an organization-level construct, readiness for change refers to organizational members' shared resolve to implement a change and shared belief in their collective capability to do so.



Organizational readiness to change may be a key determinant of implementation success and a mediator of the effectiveness of implementation interventions. If organizational readiness can be reliably and validly assessed at the outset of a change initiative, it could be used to assess the effectiveness of implementation-support activities by measuring changes in readiness factors over time (Helfrich, et al., 2018)

In the PNP Organization, organizational readiness can be translated as a catalyst to deliver better service to its clientele. This connects to transformation as a radical change process, undertaken to respond to a crisis or to take advantage of a great opportunity. It has a much more profound effect than any mere improvement program on both workers and clients. Transformation begins at the top with a vision and results in lasting change in the way things get done around here, but only when transformation becomes everybody's job.

This study seeks to provide a comprehensive analysis of the transition to a National Police Clearance System by the Philippine National Police. It aims to examine the rationale behind the adoption of a centralized system, the methods and processes employed in its implementation, and the potential impact of the new system on law enforcement procedures, public service delivery, and the overall effectiveness of background checks and criminal record verification. Additionally, the study will offer recommendations to optimize the implementation of the National Police Clearance System, addressing critical considerations for its successful integration into the existing law enforcement framework. It uses the Organizational Culture and Change Theory to examine how the organizational culture affect the sudden shift of local police clearance to centralized national police clearance.

OBJECTIVES OF THE STUDY

The Objectives of the study are as follows:

1. To examine the rationale behind the transition from a localized system of police clearances to a centralized national police clearance system within the Philippine National Police;
2. To analyze the methods and processes utilized by the Philippine National Police in implementing the shift from local to national police clearance, including the development of standardized procedures and the integration of modern technologies;
3. To assess the potential impact of the transition to a national police clearance system on law enforcement procedures, public service delivery, and the overall efficiency of background checks and criminal record verification; and
4. To explore the challenges and opportunities associated with the adoption of a national police clearance system, including logistical, technical, and public awareness considerations.

METHODS

This study utilizes a qualitative approach through in-depth interviews as a research technique. This method aims to gather

comprehensive insights into the experiences, views, and opinions of respondents regarding the shift of local police clearance to national police clearance and its impact in the law enforcement and public service delivery. Purposive sampling was used to select respondents with personnel manning the NPCCS and client's who have first-hand experience in NPCCS services, including 12 PNP personnel, 12 NPCCS clients. Structured interviews with open-ended questions were conducted in person, simultaneously recorded for correctness, and supported by field notes. Thematic analysis was employed to identify relationships between the data and other variables, recognize patterns, and provide insight into the data that may not be otherwise apparent. Ethical considerations and anonymity protection were also ensured through institutional review board approval and anonymization of participants. The study presents qualitative results in a narrative format aiming to provide a comprehensive understanding of this subject.

RESULTS AND DISCUSSION

The findings of this study reveal that the shift to a national police clearance system is driven by the need for standardization, improved data management, and enhanced accessibility for both individuals and organizations requiring police clearances. The PNP has implemented a phased approach to the transition, involving the development of centralized databases, the establishment of standardized clearance procedures, and the integration of modern technologies to facilitate the application and processing of national police clearances. The transition to a national police clearance system poses both challenges and opportunities for the Philippine National Police. While centralization may lead to more consistent and reliable background checks, it also requires comprehensive infrastructure and resource investments to ensure the security and accessibility of the centralized clearance database. Additionally, the implementation of the new system necessitates effective communication and public awareness campaigns to inform the populace about the changes in the clearance process.

What is the rationale behind the transition from a localized system of police clearances to a centralized national police clearance system? What are the methods and processes utilized in implementing the shift?

The transition from localized system of police clearances to centralized national police clearance system

Crime prevention and police services should always be responsive to the needs of the society. Old methods should be replaced and upgraded to ensure efficiency and effectiveness. Before, local police databases are not integrated. A person's police clearance varies across different police stations covering their respective jurisdiction. He may have a police clearance without annotation from one locality but might appear to be one of the persons alleged to have committed a crime in another. Clearly, a police clearance which is usually required by employers can be easily manipulated. A suspect or a criminal has the liberty to obtain a police clearance from a locality within which he knows he has clean record. To address this issue,



information and communications technology was used to modernize the law enforcement tools of the Philippine National Police (PNP) to provide a more effective and efficient service to the public that's why the NPCS by the PNP was created.

Shift from local to national police clearance -the development of standardized procedures

On May 8, 2018, PNP Memorandum Circular No. 2018-020 sets forth the guidelines and procedures in the implementation of the NPCS. The same paved the way for the nationwide implementation of the NPCS and the operationalization of the five NPCS pilot stations in Quezon City Police District on August 10, 2018. At present, it is being utilized nationwide to different City/Municipal Police Stations.

What is the impact of national police clearance system on law enforcement procedures, public service delivery, and the overall efficiency of background checks and criminal record verification? From the standpoint of the respondents, are there noticeable changes on the centralized shifting?

Impact of national police clearance system

The abolishment of localized system of police clearances and the institutionalization of National Police Clearance System (NPCS) in Philippine National Police (PNP) offers several effects, including standardization, improved access to information, streamlined processes, enhanced security, and cost savings. A centralized national police clearance system allows for the standardization of procedures and criteria for issuing clearances. This ensures that all individuals seeking police clearances are subject to the same set of checks and criteria, regardless of their location within the country. Standardization helps promote fairness and consistency in the clearance process. A national database provides law enforcement agencies, employers, and other authorized entities with access to comprehensive criminal records from across the country. This can be especially beneficial in cases where individuals have lived or worked in multiple jurisdictions, as it provides a more comprehensive view of their criminal history. Centralizing the issuance of police clearances can lead to more efficient and streamlined processes. It reduces duplication of efforts, minimizes administrative overhead, and simplifies the application and verification procedures for both applicants and law enforcement agencies. A centralized system can improve the security and accuracy of the information provided in police clearances. By consolidating data in a single, secure database, the risk of errors, omissions, or fraudulent activities can be minimized, leading to more reliable background checks. A national police clearance system facilitates cross-jurisdictional background checks, making it easier for employers and organizations operating across different regions to obtain comprehensive clearance reports for individuals with diverse geographic histories. While there may be initial costs associated with establishing a centralized system, in the long run, it can lead to cost savings for both applicants and law enforcement agencies. Standardizing processes and reducing redundancies can result in overall lower costs for obtaining and processing police clearances.

Centralized Database

Respondents' (PNP personnel) assessed that using a centralized database of criminal records makes it easier for them to access and verify an individual's criminal history. This streamlines the background check process and reduces the need to contact multiple jurisdictions for information.

More reliable for employers

Respondents' comments emphasizes that a national police clearance establishes a standardized process for conducting background checks and obtaining criminal records across the country which help to ensure consistency and accuracy in the information obtained, making it easier for employers to make informed decisions.

Time and Cost Savings

According to clients securing national police clearance/s, by providing a single source for accessing criminal record, the system helps to save time and reduce the administrative burden associated with conducting background checks. The effect of which is cost savings for the PNP and expedited processing of applicants for various purposes.

Reduced redundancy

According to the PNP personnel (respondents), with NPCS in place, there is less redundancy in the collection and verification of criminal records, as information is centrally maintained and updated. This can lead to a more streamlined and efficient process for individuals undergoing background checks.

What are the challenges and opportunities associated with the adoption of a national police clearance system? Does it strengthen or weaken public trust?

Data Privacy and Security

PNP personnel respondents' consistently noted that one of the primary challenges in NPCS is ensuring the security and privacy of the sensitive information contained in the national police clearance database. Safeguarding this data against unauthorized access, hacking, and misuse is a significant concern for them.

Data Accuracy and Integrity

PNP personnel respondents' noted that maintaining accurate and up-to-date information in a national police clearance system is challenging as sometimes the records are incomplete, not updated and with few errors that's why it requires robust data management processes and ongoing maintenance.

Interagency Cooperation

PNP personnel respondents' noticed that establishing a NPCS requires collaboration and cooperation among multiple law enforcement agencies such as NBI, CIDG, HPG and others, as well as other government entities. There is a need to overcome bureaucratic barriers and interagency coordination is somewhat considered as constraint.



CONCLUSION

In conclusion, the implementation of the National Police Clearance System (NPCS) by the Philippine National Police (PNP) represents a significant step towards modernizing and standardizing law enforcement processes in the country. The successful transition depends on the PNP's ability to address technical, logistical, and public awareness challenges, while leveraging the potential benefits of a centralized clearance system for improved service delivery and public safety

RECOMMENDATION

To maintain and enhance the successful utilization of national police clearance, The PNP should develop and implement a comprehensive public awareness campaign to inform the public about the transition to a national police clearance system. This should include clear guidance on the new application procedures, available services, and the benefits of the centralized clearance system. Second, the organization should prioritize ongoing investment in technology and infrastructure to support the maintenance of the new system. This includes ensuring the security and reliability of the centralized database and leveraging modern technologies for efficient application processing and data management. Third, Standardized procedures for processing and verifying national police clearances should be established across all PNP offices. Additionally, training programs should be provided to PNP personnel to ensure consistent implementation of clearance protocols and the use of new technologies. Fourth, The PNP should explore opportunities for collaboration and data sharing with other relevant government agencies to enhance the effectiveness of the national police clearance system. This can include sharing information on individuals with criminal records and coordinating efforts to maintain accurate and up-to-date data. Lastly, the monitoring and evaluation mechanisms should be strengthened to assess the effectiveness and impact of the national police clearance system. Regular feedback from users, stakeholders, and the public should be solicited to identify areas for improvement and ensure that the system continues to meet its objectives.

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ACCOUNTS OF PUBLIC ELEMENTARY SCHOOL TEACHERS ON INVOLUNTARY TRANSFER OF STATION: A PHENOMENOLOGY

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ABSTRACT

The purpose of this qualitative study, adopting the phenomenological approach, is to discover and understand the lived experiences of public elementary school teachers who were involuntarily transferred to a different station or school in the Division of Davao del Norte. In the data collection procedure, fourteen (14) teachers were selected through purposive sampling and they participated in the study. The participants were divided equally between in-depth interviews and focus group discussions to gather data from each of them. More importantly, trustworthiness and ethical considerations were applied in the data collection procedures, ensuring the total well-being of all participating teachers. From the participants, it was identified that they experienced struggling with financial strains, lack of school facilities and resources, challenges linked to long distance of school, predicaments relative to transitioning to multigrade classes, and electrical and internet connectivity challenges. They also revealed the different ways of coping that they had such as exhibiting positive traits and behaviors, fostering positive relationships and connections, highlighting support systems, and drawing inspiration from recognition and validation. They also realized the following insights which are namely fair and systematic approach in teacher transfers, see change as a constant thing that must be accepted, pursue personal and professional goals, and emphasize positive relationships. While most of the participants were able to adapt to the situation, the Department of Education may also reflect upon the findings of this study and may always seek to prioritize the well-being of all public-school teachers who breathe life into the basic education system that we are having today.

KEYWORDS: *involuntary transfer, public schools, elementary teachers, phenomenological research, Davao del Norte*

INTRODUCTION

Many school districts are dealing with a wide range of concerns about elementary teachers who have been assigned to a workstation and transferred to another. One of the issues that beset the public elementary school teachers is the involuntary transfer of station. When a teacher's reassignment emanates from the school or district rather than the teachers themselves, this is referred to as involuntary teacher transfer. This results in hardships or difficulties, challenges, negative feelings, and their new students' understanding and adjustment in the classroom, as well as the working environment of public elementary school teachers. The situation is enraged when teachers are promoted in the middle of the school year and take a long time to replace. Teachers can experience stress that prevents them from teaching at a new school or station.

In China, local governments sometimes use teacher transfers to reward or punish teachers. The frequent use of teacher reassignment as a form of reward and punishment tends to widen disparities in teacher quality among schools that are otherwise underserved (Wei et al., 2020). In Sri Lanka, when public school teachers are transferred after 10 years of continuous service, the educational performance of the transferred individual may decline, which may stress the teachers in service (Wijayatunga, 2018). Moreover, in Kenya,

a study by Waseka et al. (2016) agreed that teacher absenteeism due to transfer significantly contributes to poor learner performance because school curricula are not covered. They argue that when a school's curriculum is poorly covered, students may look up content they do not cover or do not understand, leading to poor performance.

In the Philippines, particularly in the Philippine Normal University Manila, changing your work environment is one of the most difficult decisions a teacher can make in their career. School teachers have an emotional bond with their former colleagues, which makes it difficult to leave them before deciding to move to another institution. When teachers move from private to public schools, they often encounter threatening and gossipy co-workers (Gonzales, 2021).

Meanwhile, in the Division of Davao del Norte, particularly in Talaingod District, several schools are experiencing a decrease in enrolment, which results in excess teachers. The excess teachers at the school could be transferred against his will. Superintendents can transfer teachers from one school to another. School teachers who are reassigned or transferred must adjust to their new working environment and the section or learners that they manage. In resonance, DepEd Order No. 22, s. 2013 if there are certain conditions "in the exigency of service" that state that transfers can also be made without



teacher consent. This can happen if the ratio of elementary school is below 35:1 and 27:1 for secondary school. Schools may be forced to split into multiple levels when enrollment in a particular school drops significantly due to displacement due to armed conflict, landslides, family relocations, or the closure of large private businesses in the area, except when introducing a class. A similar situation where a teacher is declared redundant by the Principal/School Head (SH) and their expertise is needed by another school/district/department may call for involuntary transfer. If a teacher is transferred due to service needs, one of the decisions is to hire the teacher last (last in, first out) (Department of Education, 2013).

During my research, I discovered that similar studies on involuntary station transfers were conducted. Referring to the findings of Salifu (2020), alternatively, pointed out that there exists a difficulty in transferring teachers into rural schools due to the following factors: It deals with teacher accommodation perceptions and conditions, the need for professional development, and the ignorance of the rural population. These include branding rural teachers as village teachers and teachers' desire to live in urban areas. Additionally, other studies have emerged as a key issue affecting teacher retention, academic performance, and student performance (Komakech, 2017). However, these studies are different from my study primarily because my study concept tackles the lived experiences of teachers on the involuntary transfer of stations in my local setting which is by far less explored.

Working in an unfamiliar and faraway setting may have consequences on the overall performance of teachers and their students' academic performance if this problem is left unattended. Thus, the need to conduct the study is apparent. It also influences the quality of the learning experience achieved by students taught by the same teacher. As such, this study merits importance, as this can be beneficial to promote better teaching conditions among many teachers in my locality. This study is also anticipated to improve not only the organization but also the learners, and society because it would lead to promoting the welfare of its members who happened to be teachers who are involuntarily assigned in places which they may yet find unfamiliar. This study is also anticipated to help students experience better quality of learning in schools. Findings of the study are intended and anticipated to be shared in various research conferences, and published in an online international journal which will serve as related literature and a means to communicate the results of this study. Thus, this study was conceptualized and anchored on the preceding claims.

PURPOSE OF THE STUDY

The purpose of this phenomenological study was to discover and understand the lived experiences of public elementary school teachers who were involuntarily transferred to a different station or school in the Division of Davao del Norte. At this stage of the study, involuntary transfer of station is defined as the movement of teachers from one station to another station initiated by the school principal or district administrator to conduct a teacher needs analysis.

RESEARCH QUESTION

1. What are the lived experiences of elementary school teachers regarding the involuntary transfer of station?
2. How did elementary school teachers cope with the challenges encountered on the involuntary transfer of station?
3. What are the insights drawn from the experiences of elementary school teachers on the involuntary transfer of station that can be shared with others?

METHODS

This qualitative research adopted the phenomenological approach which is a systematic endeavor that inquires the essence of experience of those who had firsthand encounters with a phenomenon by interviews and focus group discussions (Creswell & Poth, 2018; Neubauer et al., 2019; Giorgi, 2010). There were fourteen (14) participants in this study who were public elementary school teachers from selected districts in the Division of Davao del Norte.

Of the fourteen (14) participants, seven (7) participated in in-depth interviews (IDI) and the remaining seven (7) participated in the focus group discussion (FGD). In terms of recruiting my desired participants, I used the following inclusion criteria as a guide: (a) they must be a public elementary school teacher working in the Department of Education within the Division of Davao del Norte; (b) they must have at least three (3) years of teaching experience before the involuntary transfer from the previous school to the present school of assignment; and (c) they must have any of the following teaching positions: Teacher I, Teacher II, Teacher III, Master Teacher I or Master Teacher II. For the exclusion criteria, the study did not include teachers coming from private schools and those who were teaching in institutions of higher learning.

Prior to the conduct of the study, I submitted first the protocol to the Research Ethics Committee of Saint Mary's College of Tagum, Inc. to review the study to ensure that it met the requirements of accepted practice and ethical guidelines. Then, I sought endorsement from the Dean of the Graduate School for permission to conduct this research. Finally, I ensured that the data obtained from my participants' responses was exact for this study to be successful. After I completed my thematic analysis, I formulated the various core ideas. Following the extraction and formulation of the various core ideas, clustering of essential ideas was followed to arrive at a theme. The themes with core ideas then became the study's findings.

REVIEW OF RELATED LITERATURE

Involuntary Transfers of Teachers

A transfer is defined as a district, intrastate, or quick change of assignment from one school to another. On the other hand, public school teachers who are reassigned must accept wholeheartedly. Thus, a change of position inside a school is referred to as relocating. Voluntarily or involuntarily transferred public school teachers often have an advantage over newly hired staff occupying the position. A public-school teacher transfer policy should, ideally, balance the interests and demands of both teachers and administrators.



Teams that work together and pursue a common goal are more efficient, and qualified teachers typically enjoy their work and therefore stay in the profession longer. By empowering school leaders with respect to staffing, school leaders can create a collegial environment that ensures teachers are satisfied and successful in the professional community (Oribhabor et al., 2018).

Challenges of Teachers on Involuntary Transfers

Transferring public school teachers is a fundamental component of centralized education systems that may be exploited intentionally or inadvertently. Frequent teacher transfers during the school year, whether voluntary or involuntary, are considered detrimental to the school system. This is due to differences in the methods and approaches used by each teacher, which complicates management when teachers teach the same subject to the same group of students. Worse yet, failure to quickly replace a transferred teacher, especially during a session, can result in the inability to complete topics already planned for the semester, which can have a negative impact on student performance on external exams (Olorunsola & Belo, 2018).

Adjustments of Reassigned Teachers Due to Involuntary Transfers

Being a teacher transferred involuntarily to another station entails another set of adjustments. One is adjusting to the multigrade teaching setup that is utilized heavily in this context. In a study conducted by Donitsa-Schmidt and Zuzovsky (2014) amidst transitioning to multigrade classes, public school teachers grapple with diverse learning levels, constrained methods, and inadequate training, fostering frustration and strain in managing reassignment and classroom dynamics. For public school teachers who have walked this path, navigating the complexities of multigrade classrooms unveils their remarkable resilience and adaptability in ensuring quality education.

Coping Strategies of Teachers Who Encountered Involuntary Transfers

Maintaining an optimistic mindset proved instrumental in the involuntary adjustment of public school teachers, enabling

them to conquer the obstacles they encountered with resilience. The cheerful of participants outlook leads them to continue their passion and dedication to teaching despite the challenges they had experienced under the existing phenomena faced by public elementary school teachers (Cherkowski, 2018).

Insights of Teachers on Involuntary Transfers

Correspondingly, the higher rates of public-school teacher transfer requests show that teachers are dissatisfied with their schools. Thus, teacher satisfaction may vary depending on the community, environment, individual characteristics of teachers, and beliefs they hold of their profession, as well as the relative benefits and drawbacks of teaching in different schools, as well as the economic and organizational conditions of the schools where they work (Oribhabor et al., 2018).

Emphasize Positive Relationships

The arrival of new, supportive colleagues has transformed the experience at the new station, replacing toxicity with positivity. The introduction of new colleagues has proven to be a valuable addition, offering support in dealing with personal challenges and serving as a positive influences. These new companions, despite differing experiences, foster a sense of harmony among the group. For them, harmony emerges as the key element, embodying love, understanding, compassion, and sympathy within the team, whether comprised of colleagues, students, or family members. Such harmony is seen as the linchpin for smoother work dynamics, as it prevents chaos and conflicts, emphasizing the importance of mutual understanding in achieving collective success. As gleaned by Komakech (2017), teachers faced unexpected reassignments to undesirable areas, disrupting established connections and positive relationships with colleagues and the community. Additionally, empowering school teachers to manage staffing cultivates a collegial atmosphere, fostering teacher satisfaction and success within the professional community (Oribhabor et al., 20

RESULTS AND DISCUSSIONS

Table 1
Major Themes and Core Ideas on the Lived Experiences of Elementary School Teachers Regarding The Involuntary Transfer of Station

Major Themes	Core Ideas
Struggling with Financial Strains	<ul style="list-style-type: none"> doubling of one’s expenses because of supporting one's own food consumption and that of one’s family shouldering huge expenses for riding transportation when going to work spending huge money on gassing up one’s motorcycle traveling everyday to a distant workstation which entails financial burden having to take on debts to manage the current situation
Lack of School Facilities and Resources	<ul style="list-style-type: none"> experiencing heat and discomfort from overcrowding accommodating learners in tight spaces in the classroom using rooms as makeshift for teachers’ quarters at night and classroom at day lacking television for instruction struggling with accessing distant water source



Challenges Linked to Long Distance of School	<ul style="list-style-type: none"> • being unable to go back home frequently because of the distance of new workstation • feeling fatigue due to lengthy travel • walking a considerable distance for hours to reach the school which is not accessible through motorcycle • being assigned in a faraway school which can be worrisome in times of emergency
Predicaments Relative to the Transitioning to Multigrade Classes	<ul style="list-style-type: none"> • expressing frustration and coping with reassignment and in handling multigrade classes • being clueless and confused on how to handle multigrade classes • having inadequate teacher training and teachers to handle multigrade classes • adjusting on alternating discussion and activities between two grades to make all students preoccupied and not bored
Electrical and Internet Connectivity Challenges	<ul style="list-style-type: none"> • using solar energy devices because of the absence of electricity • failing to meet urgent reports due to signal, power, and internet issues • lacking a dependable signal for communication

Struggling with Financial Strains

Well, it is difficult financially on my part because I must go every day and the workplace is quite far. IDI-04

I incurred debts because of what happened currently. There were really debts. FGD-07

Chang and Chiung-Haoli (2019) asserted family finances notably shape public servants' transfer choices, highlighting their focus on stability and incentives. This was also the concern of Quejada and Orale (2018) that teachers nobly invest in education via personal funds for supplies and food, motivated by fulfillment and prospects in demanding environments. Thus, in the context of the study, there is an urgency to address their needs regarding financial challenges.

The findings of this study were also in resonance to the results of the study of Plaza and Jamito (2021). It revealed that the financial status of public-school teachers in the Philippines were mostly unstable. They had to deal with household expenses and had no investments and savings for emergencies. They also had to resort to loans. All these financial burdens eventually affected the teachers' enthusiasm, focus towards work, and overall performance in teaching.

Lack of School Facilities and Resources

Another thing is the weather. It is like there are 60 inside the classroom and it is too hot. IDI-02

The water source is still distant from ours. It is also not easy to descend because I be afraid of heights. FGD-06

In one study conducted by Komakech (2017), teachers' relocations to unfavorable regions, attributed to language barriers, distance from family, security issues, and inadequate social amenities, underscore the multifaceted challenges they face beyond educational demands. In the face of daunting relocations driven by language barriers, family separation, security uncertainties, and limited amenities, teachers exemplify an extraordinary commitment that extends beyond academics, showcasing their resilience as they shape lives amidst adversity.

In connection, Okongo et al. (2015) emphasized that school facilities, textbooks, and other resources are essential components of the educational process because they give students access to a well-organized and thorough source of knowledge. Effective teaching and learning are hampered when these items are either missing or insufficient. Once

deemed inadequate, teachers may tend to present the lesson in an abstract and uninteresting way, which makes it harder for students to understand and value the subject matter. This may lead to a belief that the material is dull and uninteresting, which eventually impedes learning and lowers student motivation.

Challenges Linked to Long Distance of School

The most challenging part is the distance. Of course, I cannot go back and forth. It is tough because distance affects everything. It would be okay if I was relocated nearby. IDI-01

The negative thing is that our school is really among the last mile schools, so it is that far. Therefore, the negative thing here is when there are emergencies and people could not easily descend. FGD-06

Similarly, in a study conducted by Hussein (2016) the transfer of an employee to a new school significantly impacts individual performance due to challenges encompassing distance, transportation, and commuting fatigue. For educators navigating such transfers, proactive support systems addressing the complexities of distance, transportation, and fatigue are imperative to sustain optimal teaching performance.

In support, Quejada and Orale (2018) noted that teachers transferred in remote areas often face perilous journeys, risking their safety by using less secure modes of transportation, and endure lengthy walks, particularly challenging in inclement weather when the path to the school becomes treacherously muddy and slippery. In the face of these scary challenges, teachers in remote areas exhibit remarkable dedication and resilience, embodying the true spirit of education despite the adversities posed by their daily journeys.

Predicaments Relative to the Transitioning to Multigrade Classes

It is difficult to accept but as days go by, I was able to cope gradually because in my previous one, I had monograde teaching and suddenly I was transferred to a far-flung station, and it is multigrade. This is just too much. IDI-01

When I arrived, there was lack of teachers, so that was one of my struggles. I wondered how I could teach without proper training on multigrade. FGD-01



In a study conducted by Donitsa-Schmidt and Zuzovsky (2014) amidst transitioning to multigrade classes, teachers grapple with diverse learning levels, constrained methods, and inadequate training, fostering frustration and strain in managing reassignment and classroom dynamics. For teachers who have walked this path, navigating the complexities of multigrade classrooms unveils their remarkable resilience and adaptability in ensuring quality education despite the challenges posed by varying learning levels, limited resources, and insufficient training. Moreover, Mortazavizadeh et al. (2017) claimed that multigrade classes encompass a myriad of challenges, from time constraints and teacher limitations to diverse student populations and resource scarcity, which collectively necessitate innovative solutions and comprehensive support systems for effective and inclusive education. These experienced teachers stand as beacons of adaptability and

creativity, shaping a transformative educational landscape even amidst the intricate web of challenges posed by multigrade classrooms, limited resources, and diverse learners.

Electrical and Internet Connectivity Challenges

There is no electricity here, although there is solar, but it is not something that can be used every now and then. IDI-02
Communication is truly inaccessible because there is literally no signal there. I cannot communicate with my family. IDI-07

This is supported by Oribhabor et al. (2018) that teacher transfer requests primarily stem from factors such as poor accessibility, lack of electricity, and absence of internet connectivity. As such, Redding (2018) added that understanding teachers' work conditions, including factors like lack of internet connectivity and electricity, is pivotal in comprehending their impressions of their workstations.

Table 2
Major Themes and Core Ideas on the Coping Mechanisms of Public Elementary School Teachers with the Challenges Encountered on the Involuntary Transfer of Station

Major Themes	Core Ideas
Exhibiting Positive Traits and Behaviors	<ul style="list-style-type: none"> • having a positive mindset to avoid stress • having a strong mindset to surpass the challenges • practicing punctuality and self-discipline even when there are no visitations • putting God first in everything as important • accepting and embracing the change and calling for learners • looking for the positive side of things amidst challenges and difficulties
Fostering Positive Relationships and Connections	<ul style="list-style-type: none"> • seeking help from friends on one's weaknesses • having an environment in the new station that is not stressful and toxic • collaborating with supportive parents • treating co-workers as one's own siblings and establishing harmonious relationship • connecting and seeking advice from people • receiving comfort, caring words and encouragement from colleagues
Highlighting Support System	<ul style="list-style-type: none"> • having a supportive family that says no negative things to you • having the company and support of others whom one can talk to • telling and crying out one's heartaches to one's husband • having a partner that supports and helps out in household chores
Drawing Inspiration from Recognition and Validation	<ul style="list-style-type: none"> • being motivated extrinsically by the certificates and recognitions received as recognition of her efforts in the new station • relishing the rewarding feeling of seeing one's learners excel in the district festival of talents • receiving appreciation from parents, colleagues, and superiors

Exhibiting Positive Traits and Behaviors

I will just take it as a positive one. I will just stay positive and believe that I can do it. Because if I am emotionally weak, I can easily be carried away by stress. IDI-01
Being prayerful in everything is essential. In everything I do, I prioritize God, as He is the most important aspect of my life. FGD-01

Cherkowski (2018) stated that the power of positive thinking enabled involuntarily reassigned teachers to surmount challenges, as their optimistic outlook propelled them to persist in their passion for teaching, undeterred by the difficulties posed by prevailing educational circumstances. In the journey of reassignment, the victorious embrace of positivity amidst challenges highlights the profound

influence of a resilient mindset on unwavering commitment to teaching.

Likewise, Salifu (2020), the same can be said during the challenging times in teacher transfers due to the lack of amenities, health reasons, bad road network, and many more challenges. Teachers may be able to overcome these constraints and problems by harnessing optimism amidst the difficult situation they are in.

Fostering Positive Relationships and Connections

The parents are very supportive, and they always come together to help. That is what I have experienced, and they are incredibly supportive. IDI-04



And secondly, my colleagues and companions, their words of encouragement and sincere care, have helped me feel at ease and comfortable in my new station. IDI-07

Study shows that a positive working environment is essential, as gleaned from the study of Oribhabor et al. (2018). In the symphony of united teams and fulfilled educators, the harmonious melody of efficiency and lasting educational impact resonates for the betterment of teachers and students alike. Also, the challenges faced by teachers reassigned due to various factors underscore the delicate equilibrium between professional duties and personal bonds, highlighting the profound impact of such changes on their lives (Komakech, 2017).

Highlighting Support System

Having companions in my work, family, and friends is a significant factor and a great help. IDI-02

Especially my husband because I do not have anyone else to talk to. He is the only one I can cry to. IDI-03

This was in concurrence with the claim of American University (2023) which emphasized the importance of collaboration and support among teachers. Accordingly, it was stated that teachers need to band together to make difficult tasks lighter by working together. Isolation and loneliness in teaching, as mentioned also in the study of Salifu (2020) on his study about teachers who serve in far-flung schools, may be replaced with simple joys and laughter with the teachers encouraging, motivating, and empowering one

another. Difficult situations may become a little easier for teachers to deal with by supporting one another.

Drawing Inspiration from Recognition and Validation

I have really learned a lot from extrinsic motivation. I have proven adequately to myself that I can achieve this. It feels that the certificates given to me were in fact achievable on my end. Perhaps, I deserve this because I did not expect this one. IDI-03

Appreciation is indeed the most satisfying reward for a teacher, being appreciated by parents, valued by colleagues, and recognized by those in higher positions. FGD-04

To understand how teachers view and value teaching excellence awards selected by the students, Madriaga and Morley (2016) created an online poll for teaching staff across all universities in the UK. Students' responses to assessment surveys and instructional observations are used to determine the winners of student-led awards. The recipients expressed gratitude for the award based on the findings of their investigation. However, several respondents expressed concern that the award would cause conflict, was unreliable, and would foster unfavorable conditions.

For Ravago and Mapa (2020), teacher recognitions are a significant mechanism that the educational system in the Philippines must adapt and improve. These recognitions serve as signals for validating the teachers' exemplary efforts and achievements as well as a motivation to contribute positive impact in the lives of the learners.

Table 3

Major Themes and Core Ideas on the Insights of Public Elementary School Teachers on the Involuntary Transfer of Station that can be Shared with Others

Major Themes	Core Ideas
Fair and Systematic Approach in Teacher Transfers	<ul style="list-style-type: none"> consider the assignment of newly hired teachers in the station instead of transferring other teachers who are already in service follow DepEd orders to ensure that no one is at a disadvantage in the process urge DepEd to double check the recommendations of school heads as their decisions are affected by those they favored ensure fairness in the redistribution of excess teachers across schools consider the proximity of the teachers' residence when assigning them to their station conduct orientations on teacher transfer
See Change as a Constant Thing That Must Be Accepted	<ul style="list-style-type: none"> avoid complacency as change is said to be constant embrace changes which are beyond control with an open heart accept changes as an antecedent to understanding one's purpose of being assigned in a different station go beyond one's comfort zone and adjust to certain changes adapt change while serving one's purpose
Pursue Personal and Professional Goals	<ul style="list-style-type: none"> emphasize continuous learning for career advancement make a positive impact on others by getting promoted have commitment to improve and to give justice to one's position
Emphasize Positive Relationships	<ul style="list-style-type: none"> meet amiable colleagues who helped in one's coping and adjustment manage to get along with another in a new station highlighting harmony that promotes optimism and avoid conflict



Fair and Systematic Approach in Teacher Transfers

They should first consider the residency of the teacher, whether it is near or far to the new assigned station. IDI-07
Precisely, as lay emphasis on Hoppe (2022), navigating necessary involuntary transfers requires a fair process with advance notice, application opportunities, and priority for eligible vacancies, giving precedence to temporary teachers over new hires for a just and thoughtful transition. Aligned with this principle, the Teachers Service Commission's policy outlines teacher promotion goals that prioritize teachers' interests, allowing educators to request transfers between schools (Kanyiri et al., 2020).

See Change as a Constant Thing That Must Be Accepted

Accept it wholeheartedly because change is always present. In other words, I do not have control over things. There are certain things that I cannot control, so I must accept it wholeheartedly. IDI-02

I have realized that we should not stay in our comfort zone because there really are changes that will happen. It is because we can learn everything, just like changes. IDI-06

Quejada and Orale (2018) supported the above-stated finding as their study suggested that the teacher-participants exemplify a strong sense of responsibility by striving to provide top-quality education, leading them to develop resourcefulness and adaptability in utilizing available resources to meet the evolving educational landscape's demands. Furthermore, it was opined in another study that teachers realized upon reflecting on their experiences after the teacher transfer that they had to adapt constantly, primarily because they recognized in the field of teaching that change is nothing but inevitable (Oribhabor et al., 2018).

Pursue Personal and Professional Goals

Perhaps, if given a chance in the future, I must pursue further studies, aiming for a master's degree, which would greatly assist in my quest for promotion. It can also contribute significantly to my professional development. IDI-02

Indeed, it was revealed in the results of the study of Sevim and Akin (2021) that teachers pursued graduate education mostly to achieve personal and professional development and to build an academic career. They stated that graduate education provided them with the skills of scientific thinking and research, communication, teaching and evaluation, and establishing theory-practice relationships, as well as knowledge of the profession and the field.

Emphasize Positive Relationships

Perhaps, because I have also met new colleagues who are not difficult to work with. They are also individuals who can help me cope with my negative aspects. They have been a positive influence as well. IDI-01

We were also given a good companion. Despite our different experiences, we get along well with them. IDI-05

As gleaned by Komakech (2017), teachers faced unexpected reassignments to undesirable areas, disrupting established connections and positive relationships with colleagues and the community. Additionally, empowering school teachers to manage staffing cultivates a collegial atmosphere, fostering

teacher satisfaction and success within the professional community (Oribhabor et al., 2018).

IMPLICATION FOR TEACHING PRACTICE

The study was pursued under the premise that it would improve the teaching conditions and performance of teachers who participated in this study. At this point, it is already time to provide the implications of the results to improving teaching practice among elementary teachers who are reassigned involuntarily in far-flung schools. Discussions of the implications would revolve around the teachers, learners, school heads, DepEd officials, and future researchers. Moreover, it is also encouraged that other scholars would expand this scholarly topic through more research endeavors to spur action among the concerned entities and agencies.

It was found in the study that being in the situation of the participants would mean facing great obstacles along the journey. The combined ordeals of financial strains in allowances and travels, electrical and internet connectivity challenges, inconvenience caused by the long distance of schools where teachers were stationed, and the predicaments related to inadequate school facilities and resources as well as their sudden transition to multigrade classes would imply that teachers under this situation did never have an easy way. One can only imagine the adjustments needed to embrace these limitations and inadequacies encountered in the field. More so, these problems speak heavily about the aspects that DepEd must resolve and improve to empower the affected teachers to fully provide quality education, even in their new areas of assignment which are far from the lowlands.

It was also implied in the results of the study that these inadequacies became a disadvantage in terms of the delivery of instruction or teaching performance of the concerned teachers. The absence of stable electricity and internet connection heavily hindered the teachers in their timely submission of the necessary school reports which could have been helpful in minimizing their time spent for administrative tasks, and in return, maximizing their preparation and teaching time. More importantly, the lack of school facilities and resources coupled with the confusions on sudden transition to multigrade teaching and limited internet signal as well as electricity have left teachers with limited options in shaping the manner on how they proceed with their lessons. While these limitations were an apparent reality to the teachers in service, these have also enabled teachers to come out of their comfort zones and use their creativity and resourcefulness in finding alternatives to deliver lessons albeit the limitations stated above.

In terms of the ways of coping exhibited by the participants, most of the mechanisms were focused on the internal states such as maintaining optimism that they adopted as well as concentrated on the support and inspiration that they can draw from others such as their friends, co-teachers, and family. Indirectly, these had impacted the performance of teachers in teaching as they became more driven to teach the learners, and at the same time, more passionate to embrace all the corresponding hardships in doing so. This only highlights the importance of optimism in teaching amidst harsh conditions



such as those stated in the lived experiences of the participants. With positivity, there are almost no limits on what teachers can do to fulfill their roles and duties for their learners who need them the most. Hopefully, those teachers and school heads who are reading this manuscript will find a treasure trove of lessons from the ways of coping of the participants and they may be able to emulate from the examples displayed by the participants. In the same way, learners will also be able to appreciate more the untold and unspoken efforts of their teachers to bring quality education onto everyone's table.

As to the insights expressed by the participants, it was necessary to emphasize fairness and impartiality in teacher transfers. It was worthy for the Department of Education officials to take note of this and to continue exploring ways, programs, and policies to enhance fairness in teacher redistribution or reassignment. Moreover, it would be more beneficial for teachers with similar situations to receive technical, material, and moral support from the department in their intention and pursuit of professional development in their chosen field. More importantly, while being adaptive is part of the realizations obtained by the participants, it is also appreciated if the department will make efforts to provide more perks such as increased salary and other benefits and amenities such as free lodging, giving of monthly provisions and the like to our teachers in the far-flung areas in order for them to lessen the burdens that they are shouldering because of their situation. Likewise, this will indirectly help teachers to give their undivided attention in preparing for lessons, adjusting themselves to the ropes of multigrade teaching, achieving professional development in the field, and attaining happiness in the profession that they have chosen for themselves.

CONCLUSION

In general, the participants shared an array of colorful experiences pertaining to being a public-school elementary teacher who was transferred to another station involuntarily. So, to speak, their experiences were not that easy as they had to face various challenges in their journey such as the inadequacies in facilities and resources, constrained electricity and internet connectivity, financial strains, and exhaustion due to lengthy travel back and forth to their new station. More so, many teacher-participants were left confused on how they could manage their sudden transition to multigrade classes from monograde teaching.

In response to these difficulties, the teachers developed varying ways of coping which focused majorly on their internal states and relationships with people surrounding them while they are working. They recognized that optimism and positive behaviors could help them gain mileage in facing the battles that they are having as they serve in their far-flung workstation. More so, the recognition and validation from their peers, learners' parents, and superiors could add fuel to their lit passion to contribute more to their chosen profession. Positive relationships and support systems were also seen as integral by the participants in managing one's difficult experiences in teaching in their new place of assignment.

Overall, certain realizations struck many of the participants as they ruminated on their experiences in the field. One important aspect of this is their urge to the department to be fair in reassigning teachers, stating that there could be rooms for improvement in deciding to transfer a teacher which include the assignment of new teachers in the far-flung stations and the consideration of the teacher's proximity of residence in the teacher transfers. The pursuit of personal and professional goals was also one of the major themes which spelled the desire of teachers to improve and grow in the field and help other teachers and learners in this way. Moreover, they have also seen the permanence of change which made them accept it and be prepared for it constantly.

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ECONOMIC AND LIVING CONDITIONS OF THE SELECTED SCHEDULED CASTE SHG's WOMEN BENEFICIARY HOUSEHOLDS IN KURNOOL DISTRICT OF ANDHRA PRADESH

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ABSTRACT

The economic empowerment of Women is very essential for the development of vulnerable section of the society particularly Scheduled Caste women. Present study analyzed the economic and living condition of SC women members of SHGs participated and expressed their views from three selected revenue divisions of the Kurnool district of Andhra Pradesh. The study found that, majority of the around 90 percent of SC women occupation is agriculture in nature, while 30 percent of SC women are landless, and 55 percent are only marginal landholder. Similarly, majority of women are acquiring skills such as leadership skills, occupation skills and group management skills. The low income, poor health and inadequate marketing skills are major problems exposed by the SC women in the selection region.

KEY WORDS: *Economic Conditions, Living conditions, SC women, SHGs and Kurnool district.*

INTRODUCTION

Empowerment is a process but not an event which challenges traditional power equations and relations. Abolition of gender based discrimination in all institutions and structures of the society and the participation of women in policy and decision making process in domestic and public levels are few dimensions of women empowerment. The issues taken up by the Human Development Report, 2003, is of immense significance, which speaks of Millennium Development Goals (MDG) that prominently includes empowerment of women. In India, the principle of gender equality is enshrined in the Constitution, in the preamble, fundamental rights and the directive principles of state policy. The Constitution of India not only grants equality to women but also empowers the state to adopt measures of positive discrimination in favor of women.

Self-Help Group is a very popular concept in poor economic world due to playing significant role in brings economically exclusive families in economic ambit country. SHGs have evolved as movement from poor women to improve economic status of their families.

This has led to boost the process of women's empowerment which is a central issue in determining women status in family and society. Consequently, participation of women in the country's economic development is raised. Since women recognized as potential source of development empowering them is a prerequisite for overall development and this brought

them in to main stream of national development. Self Help Groups are results of collection action but no isolation.

NEED OF THE STUDY

Government of India is implementing several programmes and schemes for the development and empowerment of women. Among them, Self-Help Groups (SHGs) are front liners. It also comprises of higher literacy level and better health care for women and children, equal ownership and accessibility of productive resources, increased participation in economic and commercial sectors, awareness of their rights and responsibilities, improved standards of living and acquiring self-reliance, self-esteem, and self-confidence. The present research study analyzes the demographic background of the selected members of the sample SHGs in Andhra Pradesh (AP) with reference to Kurnool district.

OBJECTIVE OF THE STUDY

To study the economic and living conditions of the participated SHGs members in the selected Revenue Divisions of the Kurnool district in Andhra Pradesh (Primary occupation, land holding size, economic benefit, purpose of joining in SHG's, problems of SHG's, nature of skills and types of products they sold etc.)

RESEARCH METHODOLOGY

The methodological aspects of the study include the selection of the district, selection of revenue divisions, selection of



mandals, selection of the sample women respondents, sources of data, tools of data collection and tools of analysis, period of study.

Sampling

Kurnool district of the Rayalaseema region of Andhra Pradesh has been selected for the purposefully of the present study, which has been divided into three revenue divisions based on criteria of socio-economic conditions of the district. Multi-stage random sampling method has been used for selecting the sample respondents. Accordingly, in the first stage, 03(three) revenue divisions namely Adoni, Nandyala, Kurnool have been considered for the study. In the second stage, from each revenue division 01(one) mandal namely Alur mandal from Adoni revenue division, Gadivemula mandal from Nandyala revenue division, Veldurthi mandal from Nandyala revenue divisions are selected for randomly. In the third stage, in each mandal 01(one) village namely kammarachedu village from Alur mandal, karimaddula village from Gadivemula mandal, Boyinapalli village from Veldurthi mandal are selected. From each village, 100(one hundred) Scheduled Caste women were selected at random with a total of three hundred 300 (three hundred) Scheduled caste women. Special care has been taken to cover equally the two sub-castes of scheduled caste women (Malas and Madigas).

Sources of Data and Tools of Data Collection

The present study is based on both primary and secondary sources of data. The primary data have been collected from the women respondents through a well structured interview schedule which was pre-tested and necessary changes have been made to suit the present study. the secondary some of data has been collected from published and unpublished resources. The schedules were filled in with the help of the sample women respondents through a face to face interview by the researcher. Focused discussions with women respondents of Scheduled Castes rural women were held to get their perceptions on empowerment of rural Scheduled Castes women.

Analysis of the Data

The data collected through schedules have been classified and tabulated into many tables for analysis purpose. Simple statistical tools like averages, percentages etc., have been used to analyze the data. Based on the data collected, certain conclusions were drawn.

DATA ANALYSIS AND INTERPRETATION

Primary Occupation of the Respondents:

The primary occupation of the respondents in the study is classified as agricultural labor, construction labor, agriculture labor, petty business and other occupation.

TABLE: 1
Primary Occupation of the respondent

S.NO.	OCCUPATION	ALUR	GADIVEMULA	VELDURTHI	TOTAL
1	Agricultural Labor	58 (19.33)	95 (31.67)	86 (28.67)	239 (79.67)
2	Construction Labor	2 (0.67)	1 (0.33)	00 (0.00)	3 (1.00)
3	Agriculture	35 (11.67)	1 (0.33)	13 (4.33)	49 (16.33)
4	Petty Business	3 (1.00)	2 (0.67)	1 (0.33)	6 (2.00)
5	other Specify	2 (0.67)	1 (0.33)	00 (0.00)	3 (1.00)
Grand Total		100 (33.33)	100 (33.33)	100 (33.33)	300 (100.00)

Source: Compiled from field study

Note: values in brackets indicates percent of total sample size.

The study observed that, the primary occupations of selected SC women of Alur mandal the 58% is employed as Agricultural Labor, 35% is engaged in agriculture sector, three percentage is running their own petty business, two percent worked as construction labor and two percent is engaged with their specified works in their mandal. The primary occupations of selected SC women in Gadivemula mandal mostly 95 percent is employed as agricultural Labor, 2 percent is running their own petty business, 1 woman was engaged in Agriculturesector, and one percent of women was engaged with their specified works in their mandal. Similarly, the primary occupations of selected SC women of Veldurthi Mandal the mostly 86 percent is employed as Agricultural Labor, 13 percent respondents were

engaged in Agriculture sector, and only a woman is running their own petty business in the mandal.

In overall the primary occupation of Kurnool district of selected mandal respondents are worked mostly as an agriculture labor is 79.67 percent of the selected sample, 16.33 percent women were engaged with source of agriculture, 2 percent women were settled with small petty business.

Landholding Size of the Respondents (Family)

In the present study land holding size of the respondents is categorized as landless people, land having of less than 2.5 Acres, land having 2.5 to five acres, land having 5 to 10 acres.



TABLE: 2
Landholding Size of the Respondent (Family)

S.No.	RESPONDENTS	ALUR	GADIVEMULA	VELDURTHI	TOTAL
1	Landless	19 (6.33)	52 (17.33)	13 (4.33)	84 (28.00)
2	less than 2.5 acres	68 (22.67)	44 (14.67)	66 (22.00)	178 (59.33)
3	2.5 to 5 acres	11 (3.67)	1 (0.33)	19 (6.33)	31 (10.33)
4	5 to 10 acres	2 (0.67)	3 (1.00)	2 (0.67)	7 (2.33)
Grand Total		100 (33.33)	100 (33.33)	100 (33.33)	300 (100)

Source: Compiled from field study

Note: values in brackets indicates percent of total sample size.

The study revealed that, in selected SC women of Alur Mandal, the size of landholdings of the women as, 68 percent is acquired with less than 2.5 acres of land, landless percent is 19 percent, 11 percent holds 2.5 to 5 acres of land, and 5 to 10 acres land was acquired by 2 percent of women. Similarly, in Gadivemula Mandal the size of landholdings of the women as, 52 percent is land less 44 percent holds less than 2.5 acres of land, 5 to 10 acres land was acquired by three percent, and one percent holds 2.5 to 5 acres of land. In Veldhurthi Mandal the size of

landholdings of the women as, 66 percent acquired possessed 2.5 acres of land, 19 percent holds 2.5 to 5 acres of land, and landless percent is 13 percent, two percent holders of 5 to 10 acres land. In the overall holding of land by SC women of Kurnool District out of 300 members, 59.33 percent women holds with less than 2.5 acres of land, 28 percent is landlesswomen, 10.33 percent women hold the land of 2.5 to 5 acres, and 5 to 10 acres of land holds by 2.33 percent in the district.

Do you think that you are being benefited really as member of Self- Help Groups?

Table 3.
Member of Self- Help Groups

S.No	Response	Alur	Gadivemula	Veldurthi	Grand Total
1	Yes	87 (29.00)	90 (30.00)	95 (31.67)	272 (90.67)
2	No	13 (4.33)	10 (3.33)	5 (1.67)	28 (9.33)
Grand Total		100 (33.33)	100 (33.33)	100 (33.33)	300 (100)

Source: Compiled from the field study

Note: Values in the brackets indicates percent in total sample size

In Alur mandal, 87 percent is responded as they are really benefited by SHG's, 13 percent is responded that they are not benefited. In Gadivemula mandal, 90 percent is responded as they are really benefited by SHG's, 10 percent is responded that they are not benefited. In Veldurthi 95 percent is responded as they are really benefited by SHG's, 5 percent is responded that they are not benefited. In overall, selected regions of Kurnool

district, 90.67 percent are responded as they are really benefited by SHG's, 9.33 percent is responded that they are not benefited.

Reason or Purpose of Joining As Member of SHGs

In the present study the reason or purpose of joining in SHGs is comprises of income generation, loan expectation, subsidies and others etc.,

Table 4.
Reasons for Joining as Member in Self- Help Groups (Multiple Responses)

S.No	Row Labels	Alur	Gadivemula	Veldurthi	Grand Total
1	Income Generation	63 (21)	73 (24.33)	64 (21.33)	200 (66.67)
2	Expecting loans	30 (10.00)	20 (6.67)	34 (11.33)	84 (28.00)
3	Subsidies	50 (16.67)	45 (15)	58 (19.33)	153 (51.00)
4	Others	8 (2.67)	6 (2.00)	4 (1.33)	18 (6.00)
Grand Total		151	144	160	455

Source: Compiled from the field study

Note: Values in the brackets indicates percent in total sample size

Note: In total sample size of 300, respondents selected multiple options which result in increase of total value to 455.



The women of Alur mandal of Kurnool district answered, 63 percent is joined that to be avail to income generation activities proposed in SHG's, 50 percent is joined by the reason of subsidies provided by the SHG's, 30 percent is joined by excepting loans from SHG's and eight percent is joined by some other reasons.

The women of Gadivemula mandal of Kurnool district answered, 73 percent is joined that to be avail to income generation activities proposed in SHG's, 45 percent of percent is joined by the reason of subsidies provided by the SHG's, 20 percent of women joined by excepting loans from SHG's and six percent is joined by some other reasons.

The women of Veldurthi mandal of Kurnool district answered, 64 percent of percent is joined that to be avail to income generation activities proposed in SHG's, 58 percent of women joined by the reason of subsidies provided by the SHG's, 34 percent of women joined by excepting loans from SHG's and four percent is joined by some other reasons.

In overall the selected regions of Kurnool district, out of 300 scheduled caste women, 66.67 percent of percent is joined that to be avail to income generation activities proposed in SHG's, 51 percent of percent is joined by the reason of subsidies, 28 percent is joined by excepting loans from SHG's and six percent are joined by other reasons.

Problems of Self Help Group Members (Multiple Responses):

Table 5:

Problems experience by the members of SHGs

S. No	Problem	Alur	Gadivemula	Veldurthi	Grand Total
1	Low Production	28 (3.29)	40 (4.69)	36 (4.23)	104 (12.21)
2	Low Income	86 (10.09)	90 (10.56)	93 (10.92)	269 (31.57)
3	Bad Climate	45 (5.28)	21 (2.46)	32 (3.76)	98 (11.50)
4	Health Problems	65 (7.63)	51 (5.99)	45 (5.28)	161 (18.90)
5	Marketing Problems	40 (4.69)	60 (7.04)	55 (6.46)	155 (18.19)
6	Any Other Specify	10 (1.17)	20 (2.35)	35 (4.11)	65 (7.63)
	Grand Total	274 (32.16)	282 (33.10)	296 (34.74)	852 (100)

Source: Compiled from the field study

Note: Values in the brackets indicates percent in total sample responses

Note: In total sample size of 300, respondents selected multiple answers which leads to increase in responses to 852

The study analyzed that, in Alur mandal, 28 percent is normally experienced the low production, 86 percent is normally experienced the low income, 45 percent is normally experienced bad climate, 65 percent is normally experienced the health problems, 40 percent is experienced the marketing problems and 10 percent is experienced some other specified problems.

Similarly, in Gadivemula mandal, 40 percent is normally experienced the low production, 90 percent is normally experienced the low income, 21 percent is normally experienced bad climate, 51 percent is normally experienced the health problems, 60 percent is experienced the marketing problems and 20 percent is experienced some other specified problems.

In Veldurthi mandal, 36 percent is normally experienced the low production, 93 percent is normally experienced the low

income, 32 percent is normally experienced bad climate, 45 percent is normally experienced the health problems, 55 percent is experienced the marketing problems and 35 percent is experienced some otherspecified problems.

In overall, selected regions of Kurnool, 12.21 percent is normally experienced the low production, 31.57 percent is normally experienced the low income, 11.50 percent is normally experienced bad climate, 18.90 percent is normally experienced the health problems, 18.19 percent is experienced the marketing problems and 7.63 percent is experienced some other specified problems.

Nature Of Skills Acquired By Training Programmes:

In the present study skills are grouped as group management skills, leadership skills, financial skills, technical skills, occupational skills and other specific skills



TABLE 6
Nature of Skills Acquired by Training Programmes (multiple responses)

S.No.	SKILLS	Alur	Gadivemula	Veldurthi	Total
1	Group management skills	20 (3.63)	26 (4.72)	33 (5.99)	79 (14.34)
2	Leadership skills	40 (7.26)	28 (5.08)	49 (8.89)	117 (21.23)
3	Skills relating to financial management	35 (6.35)	18 (3.27)	27 (4.90)	80 (14.52)
4	Technical skills	15 (2.72)	12 (2.18)	22 (3.99)	49 (8.89)
5	Occupational skills	83 (15.06)	52 (9.44)	69 (12.52)	204 (37.02)
6	Any other-specify	6 (1.09)	4 (0.73)	12 (2.18)	22 (3.99)
Grand Total		199 (36.12)	140 (25.41)	212 (38.48)	551 (100)

Source: Compiled from the field study

Note: Values in the brackets indicates percent in 255

Note: In total trained sample of 255, respondents selected multiple options which result in increase of total value to 551.

The study found that, In selected mandal Alur, in the training programme 20 percent is acquired group management skills, 40 percent is acquired leadership skills, 35 percent is acquired financial management skills, 15 percent is acquired technical skills, 83 percent is acquired occupational skills, and 6 percent is acquired other specified skills also.

In Gadivemula mandal, in the training programme 26 percent is acquired group management skills, 28 percent is acquired leadership skills, 18 percent is acquired financial management skills, 12 percent is acquired technical skills, 52 percent is acquired occupational skills, and 4 percent is acquired other specified skills also In Veldurthi mandal, in the training

programme 33 percent is acquired group management skills, 49 percent is acquired leadership skills, 27 percent is acquired financial management skills, 22 percent is acquired technical skills, 69 percent is acquired occupational skills, and 12 percent is acquired other specified skills also.

In overall, selected regions of kurnool district, the skills are acquired by the SHG's percent is 14.34 percent are acquired group management skills, 21.23 percent are acquired leadership skills, 14.52 percent are acquired financial management skills, 8.89 percent are acquired technical skills, 37.02 percent are acquired occupational skills, and 3.99 percent is acquired other specified skills also.

Types Of Product Selling By The Respondent:

Table 7

Types Of Product Selling By The Respondent(Multiple Responses)

S. No	Activity	Alur	Gadivemula	Veldurthi	Grand Total
1	Dolls	0	0	0	0
2	Blouses/Chudidars etc.,	8	12	15	35 (11.67)
3	Bags/Weaving products	3	2	4	9 (3.00)
4	Hens, Ducks, Goats/Sheeps etc.,	44	56	65	165 (55)
5	Milk	40	27	20	87 (29)
6	Candles	3	8	12	23 (7.67)
7	Vegetables	17	19	28	64 (21.33)
8	Pots	5	2	8	15 (5.00)
9	Cots/Tables/Stools etc.,	1	1	2	4 (1.33)
10	Pickles	2	12	19	33 (11.00)



11	Edible items	0	0	0	0
12	Beedies	0	0	0	0
13	Any other-specify	24	12	26	62 (20.67)
Grand Total		147	151	199	497

Source: Compiled from the field study

Note: Values in the brackets indicates percent in total sample size.

Note: In total sample size of 300, respondents selected multiple options which result in increase of total value to 497.

The study found that, in Alur mandal, the product sell by the percent is as eight percent is selling blouses/chuddar's etc., three percent is selling bags/weavings products, 44 percent is selling hens/ducks/goats/sheep's etc., 40 percent is selling milk, three percent is candles, 17 percent is selling vegetables, five percent is selling pots, one member was selling cots/tables/stools etc., two percent is selling pickles, and 24 percent is selling other specified products. In Gadivemula mandal, the product sell by 12 percent is selling blouses/chuddar's etc., two percent is selling bags/weavings products, 56 percent is selling hens/ducks/goats/sheep's etc., 27 percent is selling milk, eight percent is candles, 19 percent is selling vegetables, two percent is selling pots, one member was selling cots/tables/stools etc., 12 percent is selling pickles, and 12 percent is selling other specified products.

In Veldurthi mandal, the product sell by the 15 percent is selling blouses/chudidhars etc, four percent is selling bags/weavings products, 65 percent is selling hens/ducks/goats/sheep's etc., 20 percent is selling milk, eight percent is candles, 12 percent is selling vegetables, 28 percent is selling pots, two members was selling cots/tables/stools etc., 19 percent is selling pickles, and 26 percent is selling other specified products.

In overall, selected regions of Kurnool, the products are selling by 11.67 percent is selling blouses/chudidars etc., three percent is selling bags/weavings products, 55 percent is selling hens/ducks/goats/sheep's etc., 29 percent is selling milk, 7.67 percent is candles, 21.33 percent is selling vegetables, five percent is selling pots, 1.33 percent members was selling cots/tables/stools etc., 11 percent is selling pickles, and 20.67 percent is selling other specified products:

FINDINGS OF THE STUDY

- The primary occupation wise analysis of respondents witnessed that worked mostly as an agriculture labor is 79.67 percent of the selected sample, 16.33 percent women were engaged with source of agriculture, 2 percent women were settled with small petty business.
- The study found that, 59.33 percent respondents holds land less than 2.5 Acres, where as 28 percent are landless women and 10.33 percent holds 2.5 to 5 Acres and 2.33 percent holds land 5-10 acres.
- The study observed that, in total respondents 90.67 percent of respondents said that they are highly benefited from being as member of SHGs, in contrast, 9.33 percent expressed that they are not well benefited. This indicates

positive attitude and opinion of majority of the respondents as being members of SHGs.

- The study also asked the reason for joining in SHGs, it revealed that, income generation is major reason to the 66.67 percent, and subsidies is another reason for 51 percent expecting loan by 28 percent and other to six percent.
- The study found that, 89.67 percent of respondents expressed that low income is major problem to them, followed by health problem 53.66 percent, marketing problem is for 51.67 percent, bad climate is for 32.67 percent, low production is for 34.67 percent and other reasons for 21.67 percent. This indicates that low income is major problem to the majority of the respondents. Thus, the study advices to take necessary actions for improving income levels of the SHGs.
- The study obtained the information from respondents on type of skills obtained by them through training programmes. In the study, 80 percent said that they acquired occupational skills, 45.88 percent obtained leadership skills, 31.34 percent obtained financial management skills, 30.98 percent acquired group management skills, 19.21 percent obtained technical skills and 8.62 percent said they acquired other skills. This indicates training programmes importing many skills to the respondents.
- The study observed the type of the product selling by the respondent. The study observed that, 55 percent of the respondents are selling Hens, Ducks, Goats/Sheeps etc., 29 percent selling milk, 21.33 percent selling vegetables, 11.67 percent selling blouses and chudidars, 11 percent selling pickles, 7.67 percent is selling candles, five percent selling pots, three percent selling bags, weaving and products.

CONCLUSION

The economic empowerment of Women is very essential for the development of vulnerable section of the society particularly Scheduled Caste women. Present study analyzed the economic and living condition of SC women members of SHGs participated and expressed their views from three selected revenue divisions of the Kurnool district of Andhra Pradesh. The study found that, majority of the around 90 percent of SC women occupation is agriculture in nature, while 30 percent of SC women are landless, and 55 percent are only marginal landholder. Similarly, majority of women are acquiring skills such as leadership skills, occupation skills and group management skills. The low income, poor health and



inadequate marketing skills are major problems exposed by the SC women in the selection region.

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TIME MANAGEMENT SKILLS OF BPEd STUDENTS: AN ANALYSIS

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ABSTRACT

This research study aimed to determine the factors that affect the time management skills of the BPEd students of College of Education in Nueva Ecija University of Science and Technology, Sumacab Campus. Effective time management skills of BPEd students are important because it helps them to improve their self-confidence and performance. It is, indeed, true that well-organized time management allows students to make the most of their abilities and enjoy their accomplishment at the same time. Students' time management were one of the factors contributing to students' learning outcomes. Time management during forced-distance learning was particularly interesting to be studied since students were practicing it independently at home without the teacher's direct supervision. This is where the responsibility of the students comes in, and that is to practice to use their time wisely. Therefore, students depend solely on their discipline in managing their learning time at home. Time management among the students has been the most underrated factor, yet one of the most crucial keys leading towards success. A person, who learns to manage time, accomplishes half of the work done even before starting it. A valuable talent to depend on at every phase of life, time management skills can only be harnessed with continuous practice and dedication to implement it in life (Sthitaprajnya Panigrahi, Sultan Agung Islamic University 2021).

The method used in this study was a survey questionnaire that was sent to the respondents, through online platforms like Messenger and Gmail. The questionnaire of this study was divided into four parts which are time planning, time attitude, academic behavior, and academic planning. As a result of this study, there is no significant relationship between the profile of the respondents and the time management skill. The study showed that the students who can manage their time understand the relationship between it and productivity. Most of the BPEd students created a list of their goals and tasks on what's to do and what's to be done first, for them it is of a big help because it helps them to know what they need to prioritize.

INTRODUCTION

This study will help the students on how they can manage their time performing different tasks during pandemic. Students will be knowledgeable on how to plan and organize every job assigned to them, and most importantly accomplish these works on time. In distance learning, BPEd students experienced several workloads of activities and performance tasks. Time management has a big impact on the academic performances of BPEd students. To attain the student's goals, they need to accomplish their tasks in terms of academic matters; self-planning and behavior are some of the factors that can affect the time management of BPEd students in this new normal.

The continuity of education and for every school to still attain its mission and vision which is to provide quality education for every Filipino learner, the Commission on Higher Education implemented the Blended Distance Learning. Distance Learning refers to a learning delivery modality, where learning takes place between the teacher and the learners who are geographically remote from each other during instruction. Such a form of education need not be limited to online learning; some have suggested using Smartphone and (SMS) texting technology to facilitate learning. Perhaps, some teachers might go back to basics and distribute annotated physical textbooks to their students through courier services. As long as the education sector is engaged, teachers and students have ample support, the curriculum and content of the learning modules are well-defined and personalized, technological limitations are acknowledged, and user-friendly and enjoyable materials are present education will continue one way or another (Ramos et al., 2007; Ali 2020).

Undeniably, well-organized and effective time management has a lot of positive and beneficial effects to the students. Aside from accomplishing task on time, they will have an extra time to do other things aside from their school tasks, they will have an extra time to rest and do other business-related activities like online

selling. Efficient time management skill will help the students to avoid anxiety and stress. An effective and efficient way of managing and controlling time provides opportunity for greater success in all endeavors. Learning how to manage time effectively offers several advantages, including acquisition of extra time, eliminating cramming, and increasing motivation to do the task. Likewise, it also reduces anxiety and enables the person to do the job without delay. However, experts on time management recommended that doing many things simultaneously must be avoided as much as possible (Khan et al., 2020).

MATERIALS AND METHODS

The Research Design

The researcher used descriptive research design. According to Siedlecki (2020) descriptive research was a sort of research design that tries to systematically gather data to characterize a phenomenon, circumstance, or population that was being examined.

The researchers' output was based on the questionnaire distributed and the interpreted answers. Apart from this, the study was quantitative in nature because the researchers had an objective approach to the First year to Third year BPEd students of Nueva Ecija University of Science and Technology, Sumacab Campus.

The Research Locale

This study was conducted through the use of Messenger and Google forms at Nueva Ecija University of Science and Technology, College of Education, Sumacab Campus, Academic Year 2022-2023.

The Sample and Sampling Technique

Prior to the data gathering process, permission to conduct the study with the respondents was secured from the Dean, College



of Education, Sumacab Campus, NEUST such permission was necessary in order to establish rapport and cooperation with the adviser and researchers.

The pandemic caused a lot of changes to the students, and one of those changes was the students were unfamiliar to each other due to lack of personal acquaintance unlike before face to face were possible. Because of this reason, the researchers chose the convenient sample technique as the non-probability sampling method. In order to gather information from the respondent's researchers chose their respondents randomly based on their availability to answer the research questionnaire.

The respondents were 103 BPEd student, 20 students from first year, 46 students from the second year, and 37 students from the third Year College at Nueva Ecija University of Science and Technology, Sumacab Este.

The Research Instrument

The researchers used questionnaire to get the appropriate data needed. It was divided into three parts.

1. Part I asked for the profile of the respondents. This tool determined the age, sex and year/section, civil status, family status, student's status, academic status, regular students and irregular students.
2. Part II was the tool to determine the time management skills of BPEd students amidst new normal.
3. Part III used this scale to interpret the data: strongly agree for 4.50 – 5.00 mean, agree for 3.50 -4.49, Disagree for 2.50 – 3.49 mean, Strongly Disagree for 1.50 – 2.49 mean and need Needs Improvement for 1.50 – 2.49 mean range.

Key: each column represents the following responses:-Strongly disagree, -disagree, -agree, -strongly agree

Research Procedure

The survey instrument was used to collect data from the first year, second year and third year BPEd students of Nueva Ecija University of Science and Technology, Sumacab Campus. The study also tried to identify the factors that affect the time management and skills of BPEd students.

- The survey questionnaire was standardized surveys rated by strongly agree, agree, disagree, and strongly disagree.
- The research questions were evaluated by the validator, the research adviser, and the statistician.
- A link to the online Google Form Survey was distributed to sections of 1st year, 2nd year and 3rd year BPEd students via the social media app messenger.

Analysis of Data

The questionnaire used was a checklist that was divided into two main parts. The first part dealt with the respondent's background and the second part contains questions that was subdivided into productivity, efficiency, and usefulness that deals with time management skills of BPEd students amidst new normal. Each respondent was given the same questionnaire to answer. The questionnaire used was prepared by the researchers themselves, checked by the researcher's adviser, revised by incorporating the suggestions. After the revision, the questionnaire was distributed online thru google form being sent to the respondents for them to answer. Then, it was retrieved at once the respondents have answered the questions.

RESULTS AND DISCUSSIONS

This chapter presents the results of the analysis of data gathered, the result of the statistical analysis done, and the interpretation of findings. These are presented in tables following the sequence of

the specific research problem regarding the "Time Management Skills of BPEd Student amidst New Normal: An analysis" at Nueva Ecija University of Science and Technology, Sumacab Campus.

Table 1
Distribution of Respondents by Sex

Sex	Frequency	Percent
Male	51	49.5 %
Female	52	50.5 %
Total	103	100.0 %

Table 1 shows the profile of the respondents in terms of sex. It could be seen that there are fifty-one (51) male which was equivalent to forty-nine-point five percent (49.5%) of BPEd respondents and fifty-two (52) female which was equivalent to fifty-point five percent (50.5%) of BPEd respondents who answered the survey form. These results confirmed that most of the respondents are female BPEd students.

Table 2
Distribution of Respondents by Year Level

Year level	Frequency	Percent
First Year	20	19.4 %
Second Year	46	44.7 %
Third Year	37	35.9 %
Total	103	100.0 %

Table 2 shows the profile of the respondents in terms of year-level. In terms of the respondent's year level, the second year had the most participation because there were forty-six (46) equivalent to forty-four-point seven percent (44.7%) respondents, on the other hand, the third year had thirty-seven (37) or thirty-five-point nine percent (35.9%) and the first year respondents have the least participation which was equivalent to twenty (20) students which was only equivalent to nineteen-point four percent (19.4%).

Table 3
Distribution of Respondents by Academic Status

Academic Status	Frequency	Percent
Regular	94	91.3 %
Irregular	9	8.7 %
Total	103	100.0 %

It was surprising to note that ninety-four (94) or ninety-one-point three percent (91.3%) were of Regular BPEd students and only nine (9) equivalents to eight-point seven percent (8.7%) of irregular BPEd students in all year level. As a result, researchers have a total of one-hundred-three (103) or one-hundred-point zero percent (100.0%) BPEd students.

Table 4
E-learning Platforms of the Respondents

E-Learning Platforms	Frequency	Percent
Zoom Meeting	20	19.6 %
Google Meet	16	15.7 %
Facebook	33	32.4 %
Messenger	21	20.6 %
Google Classroom	12	11.8 %
Total	103	100.0 %

Table 4 described the e-learning platforms available to the respondents. It shows the availability of every E-learning platform in descending order from most available to least available platform. The most available E-learning platform for BPEd students was the Facebook (33 responded which was equivalent to 32.4%) then, Messenger (21 responded which was equivalent to 20.6%) Zoom meeting, (20 responded which was equivalent to 19.6%) Google meet, (16 responded which was equivalent to 15.7%), and Google classroom (12 responded which was equivalent to 11.8 %). Based on the results the Google classroom was the least used E-learning platform for BPEd students from first year to third year

**Table 5****Technology and Devices available for the Respondents**

Device	Frequency	Percent
Smartphone	98	95.1%
Computer/laptop	5	4.9%
Total	103	100.0%

Table 5 described technological devices available to the respondents. Devices are one of the important tools for students to learn nowadays. One of these devices was Smartphones. As a result of the researchers' findings ninety-eight (98) responses which was equivalent to ninety-five-point one percent (95.1%) of the BPEd student used this device and five (5) responses which was equivalent to four-point nine percent (4.9%) of the BPEd students used computer or laptop in their online classes.

Table 6
Time Planning

STATEMENTS	MEAN	VERBAL INTERPRETATION
1. Do you spend time each day planning your task?	3.94	Agree
2. Do you have a list of weekly goals ready to go at the beginning of each?	3.96	Agree
3. Do you make a list for your daily schedule?	3.97	Agree
4. Do you have a set of goals for each week ready at the beginning of the week in school/work?	4.01	Agree
5. Do you have a clear idea of what you want to accomplish during the next week?	4.04	Agree
6. Do you have set goals for the entire quarter/semester?	4.06	Agree
7. Do you have photo copy of articles which, although not presently important to you, may be in the future?	3.43	Disagree
8. Do you think you should generally complete all of your targets for a given week?	3.92	Agree
9. Do you set goals for yourself when it comes to finishing tasks?	4.08	Agree
10. Do you keep your important dates (e.g., exam dates, research papers due date, etc.) on a single calendar?	4.04	Agree
WEIGHTED MEAN	3.94	Agree

As shown in Table 6, BPEd students from first year to third year college had an effective way on their time planning. In this table the item which was "Do you set goals for yourself when it comes to finishing tasks?" had the highest mean of 4.08 and be described as "Agree", and the item "Do you have a photo copy of articles

which, although not presently important to you, may be in the future?" has the lowest mean of 3.43 and be described as "Disagree". Therefore, the students of BPEd had a positive way on their time planning because their time planning has a weighted mean of 3.94 and was described as "Agree".

Table 7
Time Attitude

STATEMENTS	MEAN	VERBAL INTERPRETATION
1. When you have several things to do, do you think it is best to do a little work on each one?	3.91	Agree
2. Do you set and honor priorities?	3.92	Agree
3. Do you usually keep your desk clear of everything other than what you are currently working?	3.89	Agree
4. Are you able to make minor decisions quickly?	3.85	Agree
5. Do you believe that there is room for improvement in the way you manage your time?	4.23	Agree
6. Do you often find yourself doing things that interfere with your school work simply because you hate to say no to people?	3.77	Agree
7. Do you feel you are in charge of your own time, by and large?	3.97	Agree
8. On an average class day do you spend more time with personal grooming than with school work?	3.61	Agree



9. Generally, do you think you can usually accomplish all your goals for a given week?	3.85	Agree
10. Do you still work on an assignment the night before it due date?	3.91	Agree
WEIGHTED MEAN	3.89	Agree

It was shown in table 7 that the item “Do you believe that there was room for improvement in the way you manage your time?”, resulted the highest mean of 4.23 and was described as “Agree”, and on the item “On an average class day do you spend more time with personal grooming than with school work?”, showed the

lowest mean of 3.61 and was also described as “Agree” therefore, the student’s attitude towards their time was good because the BPEd student’s weighted mean on their time attitude was 3.89 and was described as “Agree”.

Table 8
Academic Behavior

STATEMENTS	MEAN	VERBAL INTERPRETATION
1. I listen attentively to the lecture of my subject teacher?	4.19	Agree
2. I actively participate in the discussion, answering exercises and/or clarifying things I did not understand?	4.05	Agree
3. I exert more effort when I do difficult task?	4.10	Agree
4. Before I go on to browse social networking pages, I like to finish my studies and assignments?	3.74	Agree
5. I study harder to improve my performance when I get low grades?	4.18	Agree
6. I spend less time with my friends during school works to concentrate more on my studies?	3.99	Agree
7. I study the lessons I missed if I was absent from the class?	3.91	Agree
8. I am able to meet deadline without rushing at the last minute?	3.84	Agree
9. I always get assignment done on time?	3.95	Agree
10. I am spending enough time on academic matters?	3.95	Agree
WEIGHTED MEAN	3.99	Agree

From the figure, it can be seen that in table 8, the first item which was “I listen attentively to the lecture of my subject teacher?”, attained the highest mean of 4.19 and was described as "Agree", and the item “Before I go on to browse social networking pages, I like to finish my studies and assignments?”, resulted the lowest

mean of 3.74 and was also described as “Agree”. In table 8, the weighted mean was 3.99 and was described as “Agree”, this means that the students had a good behavior towards their academic matters

Table 9
Academic Planning

STATEMENTS	MEAN	VERBAL INTERPRETATION
1. I prepare a daily or weekly “to do” list?	4.11	Agree
2. I prioritize my list in order of importance not urgency?	4.08	Agree
3. I plan time to relax and be with friends in weekly schedule?	3.88	Agree
4. I keep up to date on my reading and homework assignment?	3.90	Agree
5. I accomplish what needs to be done during the day?	4.01	Agree
6. I force myself to make planning?	3.87	Agree
7. I am spending enough time planning?	3.80	Agree
8. I have a clear idea of what I want to accomplish during the coming week?	4.04	Agree
9. I make constructive use of my commuting time?	3.89	Agree
10. I prioritize my list of order importance, not urgency?	3.93	Agree
WEIGHTED MEAN	3.95	Agree

The data implied that in table 9, the item “I prepare a daily or weekly “to do” list?”, the highest mean of 4.11 and was described as “Agree”, and the item “I force myself to make planning?”, resulted the lowest mean of 3.87 and was described as “Agree”. Based on the table, the weighted mean was 3.95 and was

described as “Agree”, therefore, the BPEd students had a good attitude towards their planning their academic matters.

Behavior

As a result, Time Management Skills can be described, and in time attitude and academic Behavior of BPEd students. It has a



great impact to the Behavior of BPEd students who always do their task with proper managing of their time.

As shown in the tables 6 and 9, the student's proper way of managing time have a great affect in their effectiveness doing their task. The students who have a positive attitude and willingness towards managing their time in a proper and effective way will benefit them in preparing to do more work loads and complicated.

Self-planning

As a result, self – planning has a great impact on BPEd students in managing time effectively and usefully. Students who are

setting their own plans in terms of their time in academic matters surely used their time wisely.

Time planning and academic planning greatly affect the performance of the students. Planning their tasks ahead of time was a big help for the students to monitor and control their time and to know what to do next and what to be done first.

Student who set their time and academic plans will help students to lessen the burden, pressure and stress in doing their assign task; will not be rushed to accomplishing tasks and it will provide more efficient and useful task.

Table 10
Significant Relationship between Profile and E-Learning Platforms

PROFILE		ONLINEPLATFORM	DEVICE
SEX	R	0.116	0.043
	p-value	0.245	0.666
YEAR LEVEL	R	-0.067	-0.051
	p-value	0.503	0.606
ACADEMIC STATUS	R	-.410**	-0.070
	p-value	0.000	0.483

The data indicates in table 10, the relationship between the profile of the respondents and e-learning tools/platforms has low level of correlation in which equivalent to 1.01.

As a result, the profile of the BPEd students did not correlate to the e-learning platforms they used. The student's choice of e-learning platforms was not affected by their sex, year level and academic status.

Table 11
Significant Relationship between Profile and Time Management Skills

PROFILE		TIME MANAGEMENT			
		Time Planning	Time Attitude	Academic Behavior	Academic Planning
SEX	R	-0.017	-0.067	-0.079	-0.032
	p-value	0.865	0.504	0.428	0.748
YEAR LEVEL	R	-0.035	0.086	0.045	0.028
	p-value	0.726	0.387	0.650	0.776
ACADEMIC STATUS	R	-0.057	-0.003	-0.091	-0.082
	p-value	0.566	0.975	0.363	0.412

As a result, the time management of BPEd students has no significant relationship with the respondent's profile. As shown in the table 11, the correlation between the profile and time management has a very low level.

The profile of the students will help in recognizing them in new normal education and it will not affect the time management of BPEd students because it only has low level of correlation with each other.

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the researcher's conclusions and recommendations based on the data collected, presented, and analyzed in the previous chapter.

CONCLUSIONS

Based on the results of the study, the following conclusions were drawn.

1. Researchers found out that the majority of the respondents are second year BPEd students with the percentage of 44.7% or 46 of second year BPEd students are active than the other year. The third year BPEd student has 37 or 35.9% of the respondents, while the first year BPEd

students have the lowest respondents in this study with a percentage of 19.4%. 91.3% of the respondents are regular BPEd students and the rest 8.7% of the respondents are irregular BPEd students in Nueva Ecija University of Science and Technology, Sumacab Campus.

2. Most of the respondents in this study were females with (50.5%) and the rest (49.5%) were male. The majority of the respondents used Facebook for their E-learning platform with 32.4%. Only twelve (12) or equivalent to 11.8% of the respondents preferred Google classroom for their online platform. For the device majority or 95.1% of the respondents using Smartphones for their online class and the rest 4.9% using computers and laptops.
3. Researchers found out in this study that the majority of BPEd students set goals for themselves when it comes to finishing tasks. It was showed in question number 9 in table 6 that 4.8 weighted means of the students "agree" that they need to set their goal to finish their tasks. In every statement in table 6 "time planning", students "agree" that they must plan and set their goal ahead of time, to achieve the desired outcome of their work. The table 6 "time planning" mean was 3.94 described as "agree". The question "Do you believe that there was room for



improvement I the way you manage your time”, with a mean of 4.23 was described as “agree”.

It follows the question “Do you feel you are in charge of your own time, by and large?”, with a mean of 3.97, described a “agree”. Table 7 “time attitude” “. Do you usually keep your desk clear of everything other than what you are currently working?”, the overall mean was 3.89, described as “agree”. The majority of the BPEd students “agree” that they must control and be responsible for how they used their time.

4. The statement “I listen attentively to the lecture of my subject teacher?” with a mean 4.19 described as “agree” followed by the statement “I study harder to improve my performance when I get low grades?” with a mean of 4.18 described as “agree”. “I exert more effort when I do the difficult task” with mean of 4.10 described as “agree”, “I actively participate in discussion, answering exercises and/or clarifying thing I did not understand?” with a mean of 4.5 described as “agree”. In table 8 “academic behavior” the overall mean was 3.99 described as “agree”. The majority of BPEd students agree that being active and attentive to their class was one of the good behaviors of the students.
5. The statement “I prepare a daily or weekly “to-do list” with a mean of 4.11 described as “agree” to be followed by the statement “I prioritize my list in order of importance not urgency” with a mean of 4.8 described as “agree” and “I have a clear idea of what I want to accomplish during the coming week” with a mean of 4.4 described as “agree”. In this table “academic planning” overall was 3.95 describe as “agree”.
6. The result also showed the Time Management Skills of BPEd student has no significant relationship with the respondent’s profile. Time management was very important for each student’s, especially for distance learners. If they manage their time then they can achieve their desire goals. Time was a strong weapon for the students in this time of the new normal education.

RECOMMENDATIONS

In the light of the findings of the study, the following recommendations were made:

1. **For Students.** There was no established start and finish periods for getting things done at home. There are also no teachers present to keep them on track. Academics may easily drift off and lose track of time without the natural support in a classroom. Online courses are either synchronous, meaning they are delivered at specified times, like in-person classes, or asynchronous, meaning they are self-paced. The latter was correct. The last allows students to have a more flexible schedule, but it may be more difficult for students to connect with instructors and perform their PE tasks from home.
2. **For Parents.** Parents also need to pay attention to their children at home and guide them on how to manage time in addressing academics issues. These things may help students to become habitual in managing time appropriately and excellently. Parents have a big role in every student in pursuing their goal to enter the new chapter of their lives. If the parents did not support their child, therefore it may affect the performance skills of the students. Supporting children may uplift their self-confidence in performing different activities.
3. **Researcher.** According to the research findings, there was a technical challenge and time management, a busy schedule, and not all content can be presented well in an e-learning environment. The researcher that lacks time

management expertise was a barrier to increased academic performance. If they are overworked and do not have time, student learning suffers, which leads to low academic morale and may jeopardize learning and institution image.

4. **Future researcher.** This study can be used by the future researchers who has a related study. Future researchers who are studying a research with a same content and with the same study can use this research study to support their study. They can also use the contents of this research study for the improvement and for the betterment of their study in the future.
5. **Student’s health.** Students in this time of pandemic tends to experience headaches and can develop eye problem because of their long time using their gadgets. Students don’t have a choice than to use their gadgets in order for them to study. Through the good time management of the students handing their academic matters, students can maximize their time and will be able to do other things like house chores. This study will help the students in the future to improve their health in terms of minimizing their time using their gadgets. The researchers wanted to help the students to be able to manage their time correctly, and will help them to improve their health through minimizing their exposure time on gadgets.
6. **Financial.** In this time of pandemic most of the parents of the students lost their jobs. There were students who could not attend the online class because they did not have enough money to buy a load and to attend in online learning through the use of Zoom meeting, Google classroom, Google meet and other E-learning platform. Also, there were students who could not buy a good gadget to support their studies in online learning. Having enough financial support in online learning will help the students to finish their tasks in time. Through the help of good gadgets and enough loads to attend in online learning will help the students to manage their time to accomplish their tasks in academic matters. This study will help students in the future to be prepared for the future costs of online learning.

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FEMINISM IN THE NOVELS OF ANITA DESAI: A CRITICAL EXPLORATION

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ABSTRACT

This research article delves into the feminist undertones present in the novels of acclaimed Indian author Anita Desai. With a career spanning several decades, Desai has explored the complexities of female identity, societal expectations, and the constraints women face in a patriarchal world. This study aims to analyze Desai's portrayal of women characters, their struggles, and the nuanced feminist themes embedded in her novels. Through a close examination of key works, such as "Clear Light of Day," "The Village by the Sea," and "Fasting, Feasting," this article aims to illuminate the ways in which Desai challenges traditional gender roles and contributes to the ongoing discourse on feminism in literature.

KEYWORDS: Feminism, Anita Desai, Struggle, Challenges, Literature

INTRODUCTION

Anita Desai, a prominent figure in contemporary Indian literature, has crafted a body of work that offers a profound exploration of women's experiences. Her novels not only depict the socio-cultural milieu of India but also provide a nuanced understanding of the challenges women face within this context. This article seeks to investigate the feminist elements present in Desai's novels and to analyze how she employs narrative techniques and character development to address gender issues.

Anita Desai's Exploration of Female Identity:

Anita Desai's exploration of female identity stands as a central theme in her body of work, reflecting a keen understanding of the intricate nuances that shape women's lives within the context of Indian society. Throughout her novels, Desai crafts narratives that delve into the complexities of female protagonists grappling with questions of identity, autonomy, and societal expectations.

One notable aspect of Desai's portrayal of female identity is her examination of the coming-of-age struggles experienced by young girls. In novels such as "Clear Light of Day," Desai intricately weaves the stories of female characters navigating the tumultuous journey from adolescence to adulthood. These characters, often on the cusp of self-discovery, confront societal norms that dictate their roles and expectations. Through their experiences, Desai invites readers to reflect on the challenges young women face in defining their identities amidst cultural expectations.

Moreover, Desai extends her exploration beyond the realm of youth to encompass the challenges faced by mature women. Her novels depict the multifaceted roles that women play within families and communities, shedding light on the intricacies of their identities as daughters, wives, and mothers. The characters

grapple with societal expectations that define their roles within these relationships, prompting a nuanced exploration of the constraints imposed by traditional norms.

The character arcs in "Clear Light of Day" exemplify Desai's nuanced approach to female identity. The novel follows the Das family, with Bim as a central character whose introspective journey unveils the layers of her identity. Bim's struggles with self-perception are intricately linked to her familial and cultural context, illustrating Desai's ability to intertwine personal and societal dimensions. Through Bim's lens, Desai provides insights into the impact of societal structures on women's self-perception, highlighting the challenges they face in reconciling individual aspirations with societal expectations.

In essence, Anita Desai's exploration of female identity is a recurring motif in her novels, showcasing her ability to illuminate the internal and external forces that shape the lives of women in Indian society. By delving into the character arcs of her female protagonists, Desai invites readers to contemplate the intricate web of cultural norms and societal expectations that influence women's self-perception and autonomy.

Societal Constraints and Patriarchy in Desai's Novels

Anita Desai's novels serve as a poignant exploration of the societal constraints and patriarchal norms that cast a shadow over the lives of her female characters. Through her meticulous storytelling, Desai skillfully unveils the challenges women encounter as they navigate the intricate web of familial and societal expectations.

In works like "The Village by the Sea," Desai provides a vivid portrayal of the patriarchal norms ingrained in the cultural fabric



of the settings she explores. The female protagonists in these novels grapple with the weight of traditional expectations that dictate their roles within the family and community. Desai intricately dissects the societal constraints that limit the agency of her characters, often forcing them into predefined roles that restrict personal growth and autonomy.

Specific instances within "The Village by the Sea" exemplify Desai's commitment to unraveling the layers of patriarchal oppression. The female characters in this novel face a myriad of challenges, from economic hardships to societal norms that perpetuate gender-based inequalities. Desai skillfully exposes the systemic nature of patriarchy, portraying its impact on the characters' aspirations, dreams, and even basic freedoms.

Through the lens of these characters, Desai invites readers to reflect on the pervasive influence of patriarchal structures and the barriers they create for women in both rural and urban contexts. The negotiation of roles within familial and societal frameworks becomes a central theme, illustrating the struggle for agency and self-determination in the face of deeply entrenched gender norms.

Furthermore, Desai's storytelling not only sheds light on the challenges women confront but also highlights the resilience and strength they exhibit in the face of adversity. The characters in "The Village by the Sea" exemplify a resistance to conformity, offering glimpses of empowerment and defiance against the patriarchal forces that seek to confine them.

In conclusion, Anita Desai's novels serve as a powerful lens through which to examine the societal constraints and patriarchal norms that shape the lives of her female characters. Through nuanced analyses of specific instances, such as those found in "The Village by the Sea," Desai contributes to a broader conversation on the impact of patriarchal oppression and the resilience of women in the face of societal constraints.

Subverting Gender Roles

Anita Desai's literary oeuvre is marked by a profound commitment to challenging traditional gender roles and expectations, a theme that is particularly evident in novels like "Fasting, Feasting." Through her storytelling, Desai offers a subversive lens that critiques societal norms, pushing her characters to make unconventional choices that defy established gender roles.

In "Fasting, Feasting," Desai presents characters who navigate the complexities of societal expectations with a rebellious spirit. The novel unfolds against the backdrop of traditional Indian family dynamics, where daughters are often expected to conform to predefined roles. Desai, however, introduces characters who resist such expectations, breaking away from the mold to pursue paths that diverge from societal norms.

One striking instance is the character of Uma, whose journey becomes a focal point for Desai's exploration of subverting

gender roles. Uma rejects the conventional trajectory of marriage and family life, opting for a different, albeit unconventional, path. This deviation from societal expectations serves as a powerful commentary on the limitations imposed on women and their agency in making life choices.

Desai's critique of societal expectations extends beyond individual choices to a broader commentary on gender stereotypes. Through the characters in "Fasting, Feasting," she challenges the stereotypical roles assigned to women, pushing against the narrative that defines their worth solely in relation to marriage and domesticity. Desai's narratives become a vehicle for dismantling these ingrained expectations, advocating for a more inclusive and expansive understanding of women's roles in society.

Moreover, Desai's subversion of gender roles is not limited to the female characters alone; male characters also find themselves challenging societal norms. This adds depth to her exploration, illustrating that the fight against gender stereotypes is a collective endeavor that transcends gender boundaries.

In conclusion, Anita Desai's novels, particularly "Fasting, Feasting," serve as a platform for the subversion of traditional gender roles. Through her characters' unconventional choices and her critique of societal expectations, Desai contributes to a feminist discourse that questions and challenges the limitations imposed on women. Her commitment to dismantling gender stereotypes resonates throughout her work, inviting readers to reflect on the possibilities of a more egalitarian and inclusive society.

Intersectionality in Desai's Feminism

Anita Desai's exploration of feminism extends beyond a singular focus on gender, embracing the complexity of intersectionality by delving into the interplay of various factors such as class, caste, and culture. In her novels, Desai offers a nuanced understanding of the layered experiences of women, recognizing that their struggles are shaped by a multitude of intersecting identities.

One key aspect of Desai's intersectional feminism is her examination of the intersection of gender and class. Through her characters, she portrays the disparate experiences of women from different socio-economic backgrounds. Whether it's the affluent women grappling with societal expectations in "Clear Light of Day" or the economically marginalized protagonists in "The Village by the Sea," Desai highlights how economic disparities intersect with gender to create distinct challenges and opportunities for women.

Caste becomes another dimension in Desai's exploration of intersectionality. In certain novels, such as "Fire on the Mountain," she addresses the impact of caste dynamics on women's lives. By weaving caste narratives into the fabric of her stories, Desai sheds light on how caste intersects with gender, influencing the opportunities and constraints faced by her female characters.



Culture is a pervasive theme in Desai's work, and she skillfully incorporates it into her exploration of intersectionality. The cultural contexts in which her characters exist shape their identities and experiences as women. Desai's novels delve into the clash between tradition and modernity, urban and rural settings, providing a rich tapestry that illustrates how cultural factors intersect with gender to mold the lives of her female protagonists.

By acknowledging and addressing these intersections, Desai's feminism becomes more inclusive and reflective of the diverse experiences of women. She recognizes that the struggles women face cannot be divorced from the broader socio-cultural context, and her novels become a canvas on which these complex intersections are painted.

In conclusion, Anita Desai's brand of feminism stands out for its commitment to intersectionality, acknowledging the multifaceted nature of women's experiences. Through her exploration of gender alongside class, caste, and culture, Desai enriches the feminist discourse by providing a comprehensive understanding of the challenges and triumphs that shape the lives of her diverse female characters.

CONCLUSION

In conclusion, the body of work crafted by Anita Desai serves as a powerful testament to her unwavering commitment to exploring the multifaceted dimensions of feminism. Her novels, with their intricate narratives and well-developed characters, offer a profound insight into the nuanced struggles and triumphs of women within the complex tapestry of Indian society.

Desai's contribution to the ongoing discourse on women's rights and gender equality is noteworthy. By delving into the lives of her female protagonists, she not only brings their stories to life but also provides a mirror reflecting the broader societal challenges faced by women. Through her keen observations and insightful storytelling, Desai encourages readers to critically examine the limitations imposed on women and to contemplate the possibilities for empowerment and emancipation.

This research article has aimed to shed light on the feminist themes embedded in Desai's works, exploring key aspects such as the exploration of female identity, the portrayal of societal constraints and patriarchy, the subversion of gender roles, and the incorporation of intersectionality. Each facet contributes to a richer understanding of Desai's feminist perspective, showcasing her ability to navigate the complexities of gender dynamics with sensitivity and depth.

As we navigate the pages of Desai's novels, we are invited to witness the resilience of her female characters, their defiance of societal norms, and their negotiation of multifaceted identities. The exploration of these themes in Desai's literature becomes not only a literary endeavor but also a call to action, prompting

readers to reflect on the real-world implications of gendered expectations.

In the broader context of Indian society, Desai's contribution becomes even more significant, as her narratives transcend geographical boundaries to resonate with readers globally. This research article seeks to inspire further exploration and discussion on the intricate intersection of literature and feminism, prompting scholars, readers, and enthusiasts alike to delve deeper into the profound impact of Anita Desai's novels on the ongoing dialogue surrounding women's rights and gender equality.

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PROBLEMS AND BENEFITS OF ONLINE SCHOOLING

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ABSTRACT

This study aimed at describing the problems and benefits of online schooling in a secondary accredited private university in the Philippines. A total of 373 respondents which include teachers, students and parents were respondents in this study. The descriptive cross-sectional method of research was used to gather data. Based on the result, some benefits of online schooling include: technological skills, use of technology and utilization of online resources are enhanced, unruly students can easily be identified and muted, promotes research and utilization of online resources. Some of the problems brought up in the use of online class include: not all students can access online class as scheduled, there are health concerns associated with online class including stress. Among the recommendations include: inclusion of online modality as learning option, reducing workloads to essential tasks, induce training, technology upgrade, and provide resources and flexibility.

KEYWORDS: *Online schooling, flexible learning, problems, benefits, descriptive research*

INTRODUCTION

The increasingly flexible delivery modes available for students provide multiple pathways and opportunities for those seeking further education (Gillete-Swan, 2017). Furthermore, Teymori, & Fardin, (2020) concluded that it is essential to pay special attention to the appropriateness of infrastructures required for online education in educational systems, so that in the future, in addition to reducing the prevalence of COVID-19 and similar diseases in schools and universities, the educational costs and would be decreased.

Problems and benefits of online schooling maybe varied in different schools and situations and that those can be identified which are generally encountered. But these are yet to be scrutinized to discover the circumstances a school experience in a setting particularly in online modality.

Despite there were benefits and problems observed in online schooling, further studies need to be undertaken to arrive at a more empirical evidence as supporting data. According to Cavanaugh, Barbour, & Clark, (2009) while K-12 online learning programs have evolved and grown over the past decade, the amount of published research on virtual schooling practice and policy is limited.

The growth of the Internet and online learning will continue, and it will come with challenges. Individuals engaged in an online course may have different qualities for a successful online

environment or elements that are challenging. Each experience will be unique to the individual. As educators and students become more comfortable and adept at communicating and learning at a distance, it will remain imperative that the best practices associated with these learning environments continue to be explored. The concerns suggested by teachers and students point towards the fact that more research and study should be conducted to provide more detailed information for changes to occur within design and methodology of online classes. Establishing a structured and user-friendly environment for online mode of education, one that is accessible for all without putting financial burden on students and teachers should be the main criteria in the minds of college and university management while promoting online education. Also, the need for providing adequate technological training to teachers about method of conducting online classes should be prioritized as it is found to be a pre-requisite for successful online class implementation (Nambiar, 2020).

The study of Nguyen (2015) concluded that it would be too easy altogether to jump on the online learning bandwagon or to dismiss it as a fad that will go away (and come back as many educational fads have been known to do). Overall, there is strong evidence to suggest that online learning is at least as effective as the traditional format, but the evidence is, by no means, conclusive. Online learning is a story that is still being written, and how it progresses will likely depend on those present.



Therefore based on the comprehensive details provided above which gives the researcher the idea to undergo this research, it is substantial that a new knowledge about how online schooling works based on the narrative of parents, students and teachers as they embark on a new educational journey of a different interface. This study finds its significance due to the reason that study about problems and benefits will open a Pandora’s Box as regard to other realities of online schooling. As new findings occur as a result of this study, more solid recommendations can be derived.

METHODOLOGY

This study is quantitative in nature utilizing the descriptive research design. This design is a systematic approach to inquiry that involves description, recording, analysis, and interpretation of conditions that now exist. According to Baraceros (2016), this research aims at defining or giving a verbal portrayal or picture of a person, thing, event, group, situation, etc. This design was used in this study in describing the problems and benefits of online schooling in one prestigious private junior high school in an accredited university in the Philippines.

Descriptive research provides important information about the population or phenomenon being studied. Descriptive research seeks to explain what is common, prevalent, or already exists in a population. It does not attempt to predict or manipulate an outcome, as is done in experimental or inferential research (Swatzell and Jennings, 2007).

The Research Instruments

Structured survey questionnaires were used to collect data using Google form for this study. There were three (3) sets of questionnaires used in the study for teachers, students and parents.

The questionnaires include survey on problems of online schooling for teachers, students and parents, survey on benefits of online schooling for teachers, students and parents and suggestions and recommendations survey for teachers, students and parents.

The weighted means of responses to the questionnaire were verbally described using the following scale:

Research Locale

The study was conducted in accredited private junior high school in Cabanatuan City where online schooling is adopted as the mode of teaching and learning. Teachers, parents and students underwent training and orientation about online modality. The school with established Learning Management System and provides distance learning has been preferred by parents and students in times of pandemic when face to face is not an option. Online mode using LMS also allows certain flexibilities and thus also termed as Flexible Learning. There is uncertainty and absence of idea how online learning works if fully implemented during pandemic and thus parents, students and teachers alike have their attitude which may be derived from their perspectives, ideas, beliefs or feelings towards a phenomenon.

Respondents of the Study

The respondents of the study were the teachers, students and parents of one of a private school in Cabanatuan City. A total of 14 teachers, 183 students and 176 parents participated in this study. The samples were taken from the population using stratified random sampling method.

There are three strata where the samples are taken from each group different from each other. Everyone in the group has given a chance to be participants in the study.

Table 1 shows the distribution of the respondents

Table 1
Distribution of Respondents

Teachers	14
Students	183
Parents	176
Total	373

- 1 (if there is absence/falsity about what the item describes)
- 2 (if there is not enough evidence or inadequacy of what the item describes)
- 3 – (if there is somehow presence or indication of reality of what the item describes)
- 4– (if there is complete truthfulness and manifestation of what the item describes)

The weighted mean of responses to the scales were verbally described as follows.

Numerical Equivalent	Verbal Description
3.25-4.00	Strongly agree
2.50-3.24	Agree
1.75-2.49	Disagree
1.00-1.74	Strongly Disagree



Data Gathering Procedure

1. The researcher sought the permission from the Supervising Dean of the High School of the University through request letters.
2. The questionnaires were sent to the respondents via group chat in messenger. The link for Google form has been sent to the respondents.
3. The questionnaires were retrieved and tallied later. Thereafter the results were recorded, organized, then analyzed and interpreted.

Validity and Reliability

The validity of the instruments was determined with the help of a statistician. The proponent also consulted other experts in the field to establish the validity of the instruments.

Using the data taken from a school in Cabanatuan City, the Questionnaire for students, parents and teachers were

administered beforehand to determine the instrument's reliability. With the assistance of a statistician through careful examination concluded that items of the instruments were clear and the directions well –stated. The data gathered revealed a strong reliability.

Analysis of Data

Using descriptive statistical tools the data gathered were then analyzed. The weighted mean of the responses with regard to problems and benefits survey questionnaires were tabulated and computed then later on analyzed and interpreted.

Objectives of the Study

Specifically, the study aimed to:

1. Determine problems of online schooling.
2. Described the benefits of online schooling.
3. Formulate recommendations based on the result of the study

RESULTS AND DISCUSSION

Table 2
Benefits of Online Schooling

Item	Teachers		Students		Parents	
	Weighted Mean	Description	Weighted Mean	Description	Weighted Mean	Description
1. Online learning has the ability to disassemble barriers that have been conducted by poverty, location, disability.	2.7	A	2.9	A	2.7	A
2. Allow learning to occur in a setting not restricted by time and place.	2.8	A	2.8	A	2.9	A
3. Online schooling broadens educational opportunities and stays competitive.	2.6	A	3.0	A	2.8	A
4. Online courses are easier because the focus is on learning is not on other factors such as social interaction and physically attending class.	2.8	A	2.7	A	2.6	A
5. Use of technology is enhanced and promotes research and utilization of online resources.	3.1	A	3.1	A	3.0	A
6. Attendance can be easily checked and monitored	2.7	A	3.0	A	2.9	A
7. Progress of students can be determined with analytics embedded the LMS.	2.9	A	2.9	A	2.8	A
8. Checking of submissions of output is not difficult.	2.4	D	2.7	A	2.8	A
9. Students have more time to work on their tasks and assignments.	3.3	SA	2.9	A	3.0	A
10. Lesson contents are essentials thus, learning is more relevant.	3.2	A	2.9	A	3.0	A



11. Financial burden in educational expenses are reduced to work/team from home set-up.	2.4	A	3.0	A	2.9	A
12. Teachers who work from home can also assist their children online schooling.	3.2	A	2.9	A	3.0	A
13. Unruly students can easily be identified and muted so that class discussion will not be interrupted.	3.1	A	3.1	A	3.0	A
14. Technological skills of students are enhanced.	3.4	SA	3.0	A	3.1	A
15. LMS has useful factors to facilitate learning more	3.2	A	3.0	A	3.0	A
16. Asynchronous activities are helpful to induce learning	3.1	A	3.0	A	3.0	A
Overall Weighted mean	3.36	SA	3.07	A	3.04	A

Table shows the Benefits of Online Class as perceived by teachers, students and parents. It is clear in the table that items" Technological skills of students are enhanced got the highest weighted mean of 3.4 interpreted as "Strongly Agree" while item" Financial burden in educational expenses are reduced to work/team from home set-up obtained lowest weighted mean of 2.4 interpreted as "Agree". The **overall weighted mean** of teachers response with regards to benefits of online class is **3.36** interpreted as "**Strongly Agree**".

Based on students' response, item "Use of technology is enhanced and promotes research and utilization of online resources as well as item as well as item "Unruly students can easily be identified and muted so that class discussion will not be interrupted obtained the highest mean of 3.1 interpreted as "Agree". On the other hand, items" Online courses are easier because the focus is on learning is not on other factors such as social interaction and physically attending class and Checking of submissions of output is not difficult obtained lowest weighted mean of 2.7 interpreted as "Agree". The **overall weighted mean** obtained is **3.07** interpreted as "**Agree**".

As far as parents' perspective with regards to benefits of online class is concerned, item" Technological skills of students are enhanced got the highest weighted mean of 3.1 interpreted as "agree" while item" Online courses are easier because the focus is on learning is not on other factors such as social interaction and physically attending class." got the lowest weighted mean of 2.6 interpreted as "Agree". The **overall weighted mean** is **3.04** interpreted as "**Agree**".

In the study of Gilbert (2015) he posited that benefits of online learning and concluded that overall, the research indicates the benefits of online coursework outweighs the challenges that students face. Further research on a larger scale, involving more students, professors, and online courses is needed to better evaluate the benefits, challenges, and useful strategies of successful students. Online courses offer an excellent way for students to broaden their educational opportunities and stay competitive in the ever demanding realm of education.

Table 3
Problems of Online Schooling

Item	Teachers		Students		Parents	
	Weighted Mean	Description	Weighted Mean	Description	Weighted Mean	Description
1. There is communication barrier since students cannot get assistance directly but need to wait for teachers reply online	3.1	A	3.0	A	3.2	A
2. Lack of student to student interaction	3.5	SA	3.0	A	3.1	A
3. There is lack of interest and participation among students	3.5	SA	2.9	A	3.0	A



4. Not all students can access online class as scheduled.	3.6	SA	3.3	SA	3.3	SA
5. There are glitches in using LMS	3.2	A	3.2	A	3.1	A
6. There are too many tasks to do in online modality	3.6	SA	3.1	A	3.2	A
7. Teachers discussion could hardly be understood due to interruptions and competing stimuli	3.2	A	3.3	SA	3.1	A
8. It is hard to individually monitor the attentiveness of the students while the camera is off.	3.7	SA	3.3	SA	3.2	A
9. Students tend to cheat during exam	3.7	SA	2.9	A	2.8	A
10. There are health concerns associated with online class including eye strain/ailment due to long exposure to screen (blue light) and stress.	3.6	SA	3.3	SA	3.3	SA
11. There is digital gap among students and teachers.	3.4	SA	3.3	SA	3.1	A
12. There is lack of training regarding online modalities.	3	A	2.9	A	3.0	A
13. Records of students and other data are not secured in LMS	3.2	A	2.7	A	2.8	A
14. It is hard to gauge the ingenuity of students' work via online	3.3	SA	2.9	A	3.0	A
15. Irregular attendance of students.	3.3	SA	3.1	A	2.9	A
16. Students' performance is poor.	2.9	A	2.9	A	2.6	A
Overall Weighted mean	3.36	SA	3.07	A	3.04	A

The **overall weighted** mean based on teachers' response is **3.36** interpreted as "**Strongly Agree**".

With regards to students' response, items "Not all students can access online class as scheduled", "Teachers discussion could hardly be understood due to interruptions and competing stimuli", "It is hard to individually monitor the attentiveness of the students while the camera is off", "There are health concerns associated with online class including eye strain/ailment due to long exposure to screen (blue light) and stress.", "There is digital gap among students and teachers." obtained the highest weighted mean of 3.3 interpreted as "Strongly Agree". On the other hand, item "Records of students and other data are not secured in LMS" got the lowest score of 2.7 interpreted as "Agree". The **overall weighted mean** is **3.07** interpreted as "**Agree**".

The response of parents about the problems online reveals that not all students can access online class as scheduled and There are health concerns associated with online class including eye strain/ailment due to long exposure to screen (blue light) and stress. The **overall weighted mean** is **3.04** interpreted as "**Agree**".

The findings of the study of Adnan and Anwar (2020) highlighted that online learning cannot produce desired results in underdeveloped countries like Pakistan, where a vast majority of students are unable to access the internet due to technical as well as monetary issues. The lack of face-to-face interaction with the instructor, response time and absence of traditional classroom socialization were among some other issues highlighted by higher education students.



Some of these items discussed above have been part of the investigation in this study however above-mentioned study only focus on students view. However, it is interesting to note that

problems mentioned really circulate in aspects of online classes are acknowledged by the respondents in this study of attitudes on online learning.

Table 4
Survey Result of Suggestions/Recommendations of Respondents in Online Schooling

Item	Teachers		Parents		Students	
	Weighted Mean	Description	Weighted Mean	Description	Weighted Mean	Description
1. Activities in online class should be organized better	3.6	SA	3.4	SA	3.3	SA
2. Provide more training about digital platform.	3.8	SA	3.2	A	3.3	SA
3. Provide Psycho-social support	3.6	SA	3.4	SA	3.3	SA
4. Remedial classes and exams be provided	3.8	SA	3.4	SA	3.3	SA
5. More parents consultations and interactions	3.8	SA	3.2	A	3.1	A
6. Provision for strong internet connections for teachers.	3.8	SA	3.4	SA	3.4	SA
7. Reduce teachers paper works to focus more on mastery of delivery	3.6	SA	3.5	SA	3.3	SA
8. Reduce screen-time exposure to both teachers and students	3.8	SA	3.5	SA	3.3	SA
9. Provide parents training on effective engagement in online modality.	3.6	SA	3.2	A	3.2	A
10. Incorporate learning technologies in strategic plan	3.8	SA	3.4	SA	3.3	SA
Overall Weighted mean	3.72	SA	3.34	SA	3.27	SA

Table shows result of survey about the suggestions/recommendations of teachers, students and parents. It reveals that items "Provide more training about digital platform." Remedial classes and exams are provided." More parents consultations and interactions", Provision for strong internet connections for teachers", Reduce screen-time exposure to both teachers and students, "Incorporate learning technologies in strategic plan, gained the higher weighted mean score of 3.8 interpreted as "Strongly Agree". Likewise, items "Activities in online class should be organized better", "Provide Psycho-social support", "Reduce teachers' paper works to focus more on mastery of delivery "Incorporate learning technologies in strategic plan" obtained the weighted mean of 3.6 interpreted as "Strongly Agree". The **overall mean** is **3.72** interpreted as "**Strongly Agree**".

With respect to parents survey on suggestion and recommendations items "Reduce teachers' paper works to focus more on mastery of delivery", "Reduce screen-time exposure to both teachers and students" got the highest weighted mean of 3.5

interpreted as "Strongly Agree" while "Provide more training about digital platform.", "More parents consultations and interactions, "Provide parents training on effective engagement in online modality" obtained the lowest weighted mean of 3.2 interpreted as "Agree". The overall weighted mean is 3.34 interpreted as "Strongly Agree".

Students survey on suggestions and recommendations revealed that item "Provision for strong internet connections for teachers." while item "More parents consultations and interactions," got the lowest weighted mean of 3.1 interpreted as "Agree". The **overall weighted mean** is **3.27** interpreted as "**Agree**".

Based upon the result it is affirmed that challenges in online schooling can be addressed as a matter of change in policies and programs. Aside from the things commonly regarded as beneficial for the improvements of online learning such as establishing norms, creating accessible content, strengthening relationship, fostering lively interactions and connecting with families, (Nielsen, 2020) there are other concerns that are



recognized to be of utmost needs to be included in the program of instituting technologies like using online modality in teaching and learning.

Findings above show the strong sentiments of respondents that provisions of giving emphasis on those items mentioned above are necessary.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions that have been summarized are as follows:

1. There are benefits in online schooling/modality.
2. Problems exist in online schooling.
3. Perceived improvements of online modality were derived from the stakeholders.

Based on the conclusions following recommendations were crafted:

1. Include online modality in future curriculum design of the school.
2. Involve the stakeholders, teachers, parents and students in planning and decision making
3. Reduce teachers' workloads and students' tasks as well as screen time to reduce health hazards brought by too much exposure to blue light and gadgets.
4. Provide contingency measures or alternatives to problems encountered in online schooling.
5. Induce more training and follow-ups especially for teachers.
6. Upgrade learning technologies and teachers' capabilities.
7. Provide teachers with resources and flexibility.

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POST-COVID SYNDROME. OPTIC NERVE LESIONS (Literature Review)

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SUMMARY

Coronavirus infection COVID19 is an acute respiratory viral disease, which in most cases is severe and leads to the development of various complications known as post-COVID syndrome.

Post-covid syndrome or long-covid syndrome is a consequence of coronavirus infection (COVID-19), while 20% of those who have been ill suffer from long-term symptoms, the duration of which varies greatly and is more than 12 weeks.

According to the WHO, the post-covid syndrome includes 33 symptoms, while in younger people who have been ill, the incidence of this symptom complex is much higher. According to the literature, post-COVID syndrome may reappear 3-6 months after clinical recovery. This condition is characterized by various non-specific symptoms, which can be manifested by dysfunction of individual organs, skin vasculitis, neurological symptoms up to the development of mental disorders.

Summing up, it should be noted that during the pandemic period, certain experience has been accumulated regarding ophthalmic problems. The data obtained are sometimes contradictory, but it is already clear that ophthalmic disorders in COVID-19 can be leading along with damage to other organs. Perhaps a new disease leads to an exacerbation of an existing or manifestation of dormant ophthalmopathology. Regardless of what is the cause, it is necessary to remain vigilant about the state of the organ of vision both in the immediate and long-term period after a new coronavirus infection.

KEYWORDS. Postcovid syndrome, optic neuritis, optic vasculitis, anterior ischemic neuropathy

Coronavirus infection COVID19 is an acute respiratory viral disease [1, 2, 3], which in most cases is severe and leads to the development of various complications, known as post-Covid syndrome.

Post-Covid syndrome or Long Covid [2, 4, 6] is a consequence of coronavirus infection (COVID-19), with 20% of recovering individuals suffering from long-term symptoms, the duration of which varies greatly and lasts more than 12 weeks.

According to WHO, post-Covid syndrome includes 33 symptoms, while in younger people who have recovered from the disease, the incidence of this symptom complex is much higher.

It should be noted that the post-Covid syndrome is included in the International Classification of Diseases (ICD-10) [8, 9, 10], category code U09.9 "Condition after COVID-19, unspecified," which also includes the post-Covid condition [11].

According to the literature [8, 9, 10], post-Covid syndrome can reappear 3-6 months after clinical recovery. This condition is characterized by various nonspecific symptoms, which can manifest as dysfunction of individual organs, skin vasculitis, neurological symptoms, and even the development of mental disorders.

According to many authors, the causes of the development of post-Covid syndrome may be hypercoagulation, damage by the virus to cells of various organs, and an inadequate immune response to cells affected by the virus. Thus, the development and spread of these pathological processes can subsequently cause coagulopathy and vasculopathy.

According to the authors, post-Covid syndrome in ophthalmology can manifest itself in the form of uveitis, keratitis, vasculitis,

SARS-CoV-2 infection in the post-Covid period has an impact on both the physical and cognitive and mental health of patients, especially those undergoing treatment in intensive care units. Moreover, it has been shown that the effects of the virus can last for weeks or months. The term "post-COVID syndrome" is commonly used to refer to a variety of physical and psychological symptoms that continue after the acute phase has resolved. This problem is becoming increasingly urgent, the incidence ranges from 10% to 35%, and among patients with a history of hospitalization the rate reaches 85%. This article systematizes the variety of clinical manifestations of post-Covid syndrome, and examines the possible pathogenetic mechanisms of this still poorly understood condition.

According to this author (Zhabura M.O., Shostakovskaya A.S., Yatskov I.A.). The problem of post-Covid complications is as significant for the global medical community as COVID-19 itself. Emerging evidence points to multifactorial pathogenesis, namely inflammation, nervous system dysfunction, endothelial



damage and thromboembolism as the main pathogenic mechanisms. Particular attention should be paid to patients who have comorbid diseases and, accordingly, a higher risk of developing complications. The findings have important prognostic implications, especially for older adults who are more susceptible to severe cognitive outcomes from COVID-19

According to the authors, the growing evidence of the effects of SARS-CoV-2 on the central nervous system raises key questions about identifying factors that determine the risks of subsequent cognitive decline, the development of Alzheimer's disease and other types of dementia, and mood disorders. It is important that patients who have suffered from COVID-19 remain under systematic medical supervision. It is expected that as long-term complications of COVID-19 develop, more data will be available to guide therapeutic management. Further studies are needed to elucidate the incidence, clinical spectrum, pathogenesis and prognosis of this new clinical entity. In the meantime, standardization of definitions and consensus on classification criteria are needed.

According to the literature, the multidisciplinary COVID-19 clinic at the University of Cincinnati Medical Center in the United States proposed criteria for subtypes of COVID-19 sequelae based on initial symptoms, their duration, rest period, and time of symptom onset [34]. There are five categories of long-term COVID-19 syndrome: – Type 1 – includes patients with varying duration of recovery, which is directly related to the severity of infection, organ damage and comorbidities; – type 2 – symptoms persist for 6 weeks from the onset of the disease; type 3 - characterized by a period of quiescence or near complete recovery after the initial infection, followed by a recurrence of symptoms that persist for at least 3 months (type 3A) or at least 6 months (type 3B); – type 4 – includes patients who are initially asymptomatic at the time of testing positive for SARS-CoV-2, but who develop symptoms after 1–3 months (type 4A) or at least after 3 months (type 4B), persisting over varying periods of time; – Type 5 includes patients who were asymptomatic at the time of testing positive for SARSCoV-2, or who were asymptomatic but died suddenly within the next 12 months [38].

Regarding the prognosis of patients with post-Covid syndrome, other than lingering symptoms, the few published data indicate that most patients have a good prognosis without any further complications or deaths. Post-Covid syndrome, which affects an average of approximately 10% of COVID-19 patients, is not limited to patients with severe acute COVID-19. Symptoms of post-Covid syndrome are usually mild, improve over time, and have no specific predictors. Fatigue, shortness of breath, chest pain, mental health problems, and long-term smell and taste dysfunction are the most common symptoms of post-Covid syndrome. Outpatient services are expected to play a vital role in the rehabilitation of such patients. This review describes the impact of these complex problems on patients with post-Covid syndrome, and the importance of timely diagnosis based on well-described criteria. Patients with post-Covid syndrome should be treated symptomatically, avoiding excessive testing, and pre-existing or new comorbidities should be taken into

account. Guidelines for the diagnosis and treatment of post-Covid syndrome based on established criteria are needed to facilitate and improve the quality of provision of appropriate medical services. In addition, registries are needed to actively and systematically monitor patients with COVID-19 to assess the incidence, clinical spectrum and outcomes of patients with post-Covid syndrome.

Optic neuritis is an inflammatory process, usually unilateral, accompanied by pain and complete or partial loss of vision, which requires pathogenetic treatment, in most cases resolving spontaneously.

Retrobulbar neuritis is an inflammatory lesion of the optic nerve located between the orbit and the optic chiasm. Also accompanied by a decrease in visual acuity, the appearance of loss, limitations of the visual fields, pain when moving the eyeball. It is treated with glucocorticosteroids, antibacterial, antiviral, antihistamines, diuretics, and neuroprotective agents.

Occlusion of the central retinal artery is an acute blockade of the central retinal artery or its branches, leading to circulatory disorders and retinal ischemia. Occlusion of the central nervous system is manifested by sudden loss of vision or sectoral loss of visual fields in one eye.

Optic nerve atrophy is a pathological process that is accompanied by degeneration of the nerve fibers of the optic nerve as a result of their inflammation, swelling, compression, circulatory disorders, and damage.

Optic disc vasculitis is a microthrombovasculitis with predominant damage to the blood vessels of the intraocular part of the microvasculature of the optic nerve, which is accompanied by hyperemia and swelling of the optic disc, expansion and increased permeability of venules and capillaries, hemorrhages, as well as the appearance of remitting microcystic edema in the macula.

To date, the ophthalmological manifestations of COVID-19 have been described in several original studies and clinical cases. In general, eye involvement is rare. In the largest study, W.-J. Guan et al analyzed data from a cohort of 1099 patients with COVID-19 and found conjunctival involvement in only 0.8% of cases. Involvement of the conjunctiva is rather nonspecific and may even be associated with mechanical ventilation, which was used in 6.1% of patients in this study [16].

In another ophthalmology study, P. Wu et al found ocular symptoms in 12 (31.6%) of 38 patients with COVID-19, but SARS-CoV-2 RNA was detected in only 2 (5.2%) of them. Symptoms manifested themselves in the form of hyperemia, chemosis and lacrimation, while the patients had no changes in visual acuity [17].

Patients with ocular symptoms had higher white blood cell and neutrophil counts, as well as higher levels of procalcitonin, C-reactive protein, and lactate dehydrogenase. Because these markers have been found to be highly correlated with disease severity, the possible association between the presence of



ocular symptoms and moderate to severe disease should be explored in further studies. In this report, approximately 30% of patients with COVID-19 had ocular abnormalities, which often occurred in patients with more severe COVID-19. Although SARS-CoV-2 is rarely found in tears, it can be transmitted through the ocular surface [18].

A study by I. Seah et al found similar symptoms in 1 (5.8%) of 17 patients who had conjunctival injection and chemosis [9]. The same clinical picture was described by L. Chen and co-authors, noting the presence of redness, foreign body sensation and lacrimation in the patient. In addition, the authors found follicles on the conjunctiva of the lower eyelid. Symptoms appeared on the 13th day of the disease, and the condition improved on the 15th day, and all symptoms completely disappeared on the 19th day [19]. The work of M. Cheema et al found similar signs of conjunctivitis, but the authors also noted the presence of eyelid edema, follicles and keratitis with subepithelial infiltrates and epithelial defects [7].

A review by I. Seah and R. Agrawal regarding the pathogenicity of coronaviruses in general indicates that conjunctivitis, anterior uveitis, retinitis and optic neuritis are characteristic in experimental models in cats and mice [20]. To date, it is essentially unclear whether SARS-CoV-2 can cause more severe ocular pathology beyond keratoconjunctivitis. However, since ACE-2 is present in the retina and vitreous, uveitis or damage to the posterior pole of the eye may occur, especially with increased viral load [21]. It should be noted that patients with high viral loads are also more likely to develop severe or critical disease, so vision problems may go largely undetected as these patients are often treated in intensive care units for much more severe, life-threatening conditions.

A.A. Ryabtseva and co-authors observed 23 patients within 44-85 days from the onset of symptoms. Observations showed that in the late period of convalescence complaints of dry eyes and impaired color perception persisted with unchanged visual acuity. Optical coherence tomography (OCT) of the peripapillary retina revealed small hyperreflective foci in the inner layers. According to the authors, changes in the organ of vision in patients who have had COVID-19 are mainly associated with the condition of the ocular surface, impaired color perception and changes in the architectonics in the inner layers of the retina, which can persist for a long time during the period of convalescence [22].

In the literature described multiple neuro-ophthalmological manifestations in patients with COVID-19. These symptoms and signs may result from a variety of pathological conditions, including hypoxia, hypertension, ischemic and hemorrhagic strokes, and parainfectious and postinfectious inflammatory processes. To date, the development of these pathological processes in the post-Covid period has not been studied. Cases of optic neuritis have been described in patients with confirmed COVID-19 infection. A study examining the neurological complications of COVID-19 describes one case of optic neuritis in the convalescent phase. In addition, there are case reports of the presence of antibodies in patients with suspected or confirmed COVID-19 infection and optic neuritis. One patient

had bilateral optic nerve abnormalities, including peripheral retinal hemorrhages, which were successfully treated with intravenous corticosteroids. A case of optic neuritis has been reported that was associated with other neurological disorders and consistent with acute disseminated encephalomyelitis [33]

According to the authors, all cranial nerves can be involved in COVID-19, but cranial nerves VII, VI and III are most commonly involved. Cranial nerve involvement in COVID-19 can occur with or without Guillain-Barré syndrome. As of the end of January 2021, 32 patients with isolated cranial nerve injury and 24 patients with GBS and cranial nerve injury were enrolled. Brain imaging is important in patients with cranial nerve injury because it can show damage not only to clinically affected but also to clinically healthy cranial nerves. In patients with cranial nerve damage, COVID-19 infections are usually mild. Isolated cranial nerve palsy without GBS usually responds well to steroid treatment. GBS with cranial nerve involvement will benefit from IVIG.

To summarize, it should be noted that during the pandemic, certain experience has been accumulated regarding ophthalmological problems. The data obtained are sometimes contradictory, but it is already clear that ophthalmological disorders in COVID-19 can be leading along with damage to other organs. Perhaps a new disease leads to an exacerbation of an existing or manifestation of dormant ophthalmopathy. Regardless of what the cause is, it is necessary to remain vigilant regarding the condition of the organ of vision both in the immediate and long-term period after suffering a new coronavirus infection.

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PRACTICES, CHALLENGES, AND EXTENT OF IMPLEMENTATION ON DUMPING OF E-WASTE AMONG STAKEHOLDERS: BASIS FOR DEVELOPMENT OF AN ENHANCEMENT PROGRAM

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ABSTRACT

This quantitative research using a descriptive survey design aimed to investigate the level and significant differences in practices, challenges, and extent of implementation of e-waste dumping among stakeholders. Using simple random sampling, 91 respondents from PNP Maritime Group, DENR personnel, and Philippine Coast Guards were taken. Utilizing the researcher-made questionnaire, data were gathered and analyzed using the appropriate descriptive and inferential statistical tools. The results revealed that the practices gained the response of "highly practiced," an indication of very good execution and implementation of practices given dumping e-waste. On the other hand, given the challenges, it gained the response "Very Difficult," an indication that addressing the challenges of the dumping of e-waste is very difficult. "Excellent" was the level indicating the extent of implementation because of e-waste dumping because the provision or condition is very extensive and functioning perfectly. Moreover, practices, challenges, and extent of implementation have shown significant differences because of dumping e-waste among stakeholders. Out of the results, the researcher proposed an enhancement program to continuously improve the stakeholders' practices, challenges, and extent of implementation on the dumping of e-waste.

KEYWORDS: Dumping of E-Waste, Enhancement Program, Practices, Challenges

INTRODUCTION

In our daily existence, innovation and technological enhancements have increased due to digital and electrical equipment. Almost everyone has smartphones and another type of electronic devices that have become the new lifestyle of global citizens (Balde et al., 2017). The use of electronic devices like smartphones, laptops, TVs, microwaves, and others has made our lives simpler and more superficial. However, these devices comprise poisonous materials and substances that need to be disposed of competently to shield humanity and preserve our ecological balance. For these reasons, proper e-waste disposal is very vital since it is the fastest-growing waste stream in the world, and both developing and underdeveloped countries are struggling with e-waste issues.

According to the data from the United Nations Environment Program, e-waste grows 40 million tons annually. Smartphones and computers waste are the biggest contributors, followed by gold and silver waste, palladium, and cobalt. The increasing of electronic devices use will lead to a high rate of e-waste in the future. It is predicted that there will be 200% increase in e-waste in China as a developed country and 400% increase in e-waste in South Africa as a developing country by 2020 (Nijman, 2019).

The article "A Systematic Review of E-Waste Generation and Environmental Management of Asia Pacific Countries" by Andeobu et al. (2021) emphasized that e-waste is one of the most urgent and pressing challenges of our time; however, it is routinely ignored. The challenges in e-waste management arise from the unsustainable production, use, and disposal of electronic devices in our digitally connected world. Seemingly, Forti et al. (2020) revealed that many countries, including those in the Asia Pacific region, lack sufficient e-waste management practices. It is crucial to make greater efforts towards smarter and more sustainable global production, consumption, management, trading, and disposal of e-waste. Bhaskar and Kumar (2016) added that implementing appropriate e-waste management strategies will contribute to the achievement of sustainable development goals and reduce the global climate crisis by developing the necessary, needed, and required e-waste policies.

This study provided background information for determining hazardous waste, which is often deliberately classified as items to deceive law enforcement authorities, especially in the NCR, most notably in Greenhills, Raon in Manila, and almost every store at the very heart of Metro Manila. Therefore, there is a need for us to equip and familiarize ourselves with smart procedures and steps that we need to take to dispose, recycle, and dump these faulty electronic waste devices. Moreso, there is a need for the



different government agencies in the National Capital Region to discuss their roles in the battle against the illicit dumping of e-waste in Metro Manila.

Further, this study was anchored to the Value-Belief-Norm Theory (VBNT) which served as the researcher's basis for the development of different enhance programs. VBNT was first established by Stern et al. (1999) to explain the influence of human values on behavior in an environmentalist context. The VBN Theory describes the level of engagement a person has with his environment and the way he prioritized and values good environmental behavior, such as recycling, and influences where e-waste travels to. Additionally, according to the VBN theory, individuals' actions are influenced by a combination of their personal beliefs, the values held by their peers, and the local environment. This theory proposes that people respond to environmental concerns in a manner that aligns with these established social norms. Simply stated, people tend to act according to their expectations of themselves and others' behaviors within their periphery (Whitemarsh & O'Neill, 2010). By applying this theory, the researcher was determined to extend some policies and programs about the implementation of environmental protection against the dumping of e-waste in Metro Manila, Philippines.

This study examined the practices, challenges, and extent of implementation to protect and minimize the negative impact brought about by the dumping of e-waste in the National Capital Region (NCR), Philippines. As part of this study, conclusions will present a series of policy recommendations and a proposed enhancement program pertaining to proper mitigation of e-waste disposal.

LITERATURE REVIEW

According to the report of the World Health Organization (2020), in 2019, Asia emerged as the leading contributor to the global e-waste crisis, generating a staggering volume of approximately 24.9 million metric tons. The Americas and Europe followed closely behind, producing 13.1 million metric tons and 12 million metric tons respectively. Meanwhile, Africa and Oceania generated 2.9 million metric tons and 0.7 million metric tons of e-waste respectively. These figures highlight the pressing need for sustainable practices and responsible management of electronic waste worldwide. This was followed by a report from the United Nations which announces that China produced a record 53.6 million tons of electronic waste, which is the same weight as 350 big cruise ships.

As per report released by the World Economic Forum in 2018, it was found out that India ranked 177 among 180 bottom countries on the Environmental Performance Index 2018. The inadequate implementation of environmental health policies and the detrimental effects of air pollution are contributing factors to the subpar performance in these areas. Additionally, India ranks fifth globally in e-waste production, following the United States, China, Japan, and Germany. These factors emphasize the need for

stronger environmental policies and sustainable practices to address the challenges posed by air pollution and e-waste in India. By prioritizing these issues, India can work towards improving environmental health and reducing its impact on a global scale. Surprisingly, less than 2 percent of the total e-waste generated in India is formally recycled each year. Since 2018, India has been generating over two million tons of e-waste annually and importing significant amounts from around the world. These statistics highlight the critical need for improved e-waste management and increased recycling efforts in the country. Additionally, the common practice of dumping waste in open dumpsites leads to problems like groundwater contamination and compromised public health. It is imperative to address these issues through sustainable waste management practices to ensure a healthier and cleaner environment for all (Manish & Chakraborty, 2019).

To sum up the reports, it is worthy to note that electronic waste is indeed a serious environmental issue in Asia. There is a need for the ASEAN countries to encourage issuance of several environmental laws, regulations and technical guidance while also collaborating on national and international e-waste projects. Effectively managing electrical and electronic waste is crucial for both domestic and international material cycles, with a focus on environmental preservation and resource utilization efficiency. Transboundary shipments of e-waste should align with the principles of sustainable development. Additionally, it is important to explore future research directions and potential collaborations in this area. By doing so, it can work towards sustainable e-waste management and contribute to the preservation of the environment and resources (Terazono et al., 2006).

According to the United Nations Industrial Development Organization (2022), the Philippines ranks as one of the leading e-waste generators in Southeast Asia. In 2019, the country produced an estimated 3.9 kg of e-waste per capita. The Environmental Management Bureau (EMB) also announced in 2019, that the Philippines generated a total of 32,664.41 metric tons. The EMB stated that e-waste, including computers, TVs, refrigerators, cell phones, and other electronic devices, consists of a complex combination of materials and components due to their hazardous content. Despite this, however, environmental group EcoWaste Coalition noted that e-waste continues to be improperly disposed of and is often found mixed with other trash in the country.

To address the issue of e-waste, environmental agencies should establish a framework for managing WEEE, reduce the amount of electrical and electronic waste, minimize the hazards of its components, and encourage the reuse and recycling of second-hand or used electronic equipment. There must be a way to encourage involvement of all relevant agencies and stakeholders in the life cycle of EEE and institutionalize the principle of "extended producers' responsibility," which will implement the circular economy concept on waste management. Thus, as part of



a comprehensive e-waste action plan, there is a need for the DENR to launch several public information and education campaigns about the looming e-waste crisis, its negative effects, and a menu of proper responses (DENR News Events, 2020).

The United Nations Environment Program (2018) highlighted the global e-waste challenge and established a Letter of Intent to facilitate coordination and collaboration for United Nations system-wide support in e-waste management. The United Nations organizations, through the Environment Management Group, have taken proactive steps to address e-waste. This includes strengthening collaboration, recognizing e-waste efforts, engaging with manufacturers and recyclers, negotiating for an E-waste Coalition, and partnering with the private sector to develop a knowledge sharing platform for information on UN e-waste projects and global statistics. In the Philippines, there is a need to equip and familiarize ourselves with smart procedures and steps that we need to undertake to dispose, recycle, and dumping of these faulty electronic waste devices. To address this global and national problem, and to control, supervise and regulate activities on toxic chemicals and hazardous waste, the government promulgated the Republic Act No. 6969 or the Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990. The law gave us a sound knowledge of the respective control of toxic substances and hazardous and nuclear waste. The primary goal is to regulate and control the importation, manufacturing, processing, sale, distribution, use, and disposal of chemical substances and mixtures that pose unreasonable risks to health and the environment. It also aims to prohibit the entry of hazardous and nuclear wastes into Philippine territory and promote research on toxic chemicals. Hence, it has been notably recognized that the public and the environment are at risk in the use or exposure to chemicals as well as the long-term damage brought about by careless handling or disposal of hazardous wastes which include electronic waste. Thus, the Department of Environment and Natural Resources (DENR) serves to be the implementing agency which shall be assisted by the Inter-Agency Advisory Council (R.A. 6969, 1990).

Further, DENR reported that the Global Environment Facility (GEF) is funding the project with a grant of US\$6.2 million through the United Nations Industrial Development Organization (UNIDO) as the implementing agency. Public and private stakeholders, including the Development Bank of the Philippines, are also co-financing the project worth over US\$35 million. DENR Assistant Secretary Rommel Abesamis added that, this situation is a long-standing global issue, however, for a developing country like Philippines, so much must be learned about Persistent Organic Pollutants (POPs), especially by the workers who are vulnerable to exposure and by women whose exposure can be passed on to their children (Duran, 2022). The DENR requires waste generators to register, report, and use authorized transporters and treaters for hazardous waste management. They also need to keep records and submit reports to DENR regarding the transport and disposal of the waste (DENR Administrative Order No. 29, Series of 1992).

The rapid pace of production and inherent short-term obsolescence of electronic products make the management of hazardous electronic waste (e-waste) a major challenge for regulatory policies designed to protect environmental quality and human health without compromising technological innovation, access to digital infrastructure, or employment opportunities associated with the international solid waste management enterprise (Schoenung et al., 2005; Ogunseitan et al., 2009; Awasthi et al., 2019).

Some countries have developed policies for managing e-waste but encounter obstacles against implementation. Most policies are based on extended producer responsibility (EPR) (Davis, 2021). An EPR-based system involves subsidies, fees, or penalties targeting electronic manufacturers (Pathak et al., 2019). However, difficulties in implementing e-waste management regulations are common in developing countries. For instance, Imran et al. (2017) highlighted the lack of import regulation of e-waste as one of the most important in Pakistan. Wang et al. (2016) concluded that households' habit of selling e-waste to street vendors is an important barrier in Liaoning Province, China. Kumar and Dixit (2018) show that lack of public awareness and incoherent e-waste policies are barriers to e-waste management in India. Chen et al. (2020) noted that economic and financial restrictions are the main obstacles in Ghana.

E-waste management is a pressing concern for many countries due to the presence of organic substances like plastic and heavy metals such as cadmium, chromium, mercury, and lead. These materials are nonbiodegradable and can accumulate in the food chain and the environment. Improper disposal of e-products, particularly plastics, in landfills leads to soil and groundwater contamination. Governments and industries need to invest in technology and education to ensure safe and cost-effective recycling and disposal methods for these materials. The rapid growth of technology leads to frequent updates in electronic products. However, there is a gap in effectively managing the production and disposal of these products. As a result, many obsolete electronic products are exported to developing countries due to cost and labor constraints. Despite this, there are also sustainable opportunities for underdeveloped areas in managing electronic waste. Developing technologies and improving policies of e-waste management plays an important role. As an important part of e-waste recycling and management, legislative rules played a vital role in a certain region. Different policies and legislations between developed countries and developing countries are of great help. To solve the problem of e-waste fundamentally, the role of the individuals also should not be ignored. E-waste education should be an important part to help individuals to change their lifestyles and strengthen their awareness about the positive effect of e-waste (Deng, W., 2019).

The limited research on e-waste policies in the Philippines, particularly in the National Capital Region, highlights the need for further investigation. This study draws insights from related



topics and literature, including the conflict between social responsibility and economic logic, electronic consumption trends, and the commodity chains of electronic waste (Lyon et al., 2008; Wilhelm et al., 2011; Lepawsky, 2011).

The other main component of the study involves taking an analytical role in understanding how the PNP, DENR thru City Environmental and Natural Resources Office (CENRO), and Environmental Management Board (EMB), and PCG can extend their help in connection to environmental protection against illicit dumping of electronic waste management practices. As discussed in an article entitled Environmental and Social Management Framework (2020), it said that there are studies that assess how these government agencies relates to the mandate of laws and provisions in a very consistent pattern, at the very least, doing more than they are required to do under applicable laws and regulations governing the environment, health, and investments in the communities particularly at the National Capital Region (NCR).

Needless to state, the study is very significant because despite the existing Philippine laws prohibiting or at least restricting the importation of certain goods for reasons of national safety, environmental and public health protection, order, and morality. In addition to complying with international treaties and obligations, toxic substances, and hazardous waste, including e-waste continuously pour in the Philippines. This study also endeavors to narrate the role of our environmental workers/officers from DENR thru CENRO, EMB, and Philippine Coast Guard located in the NCR on how they can adequately address and combat these environmental problems regarding E-waste (Philippine Country Commercial Guide, 2022).

As regards to the extent of implementation of environmental protection against illicit dumping of e-waste, the International E-Waste Management Network (IEMN) in 2018, conducted a workshop in the Philippines. This was sponsored by U.S Environmental Protection Agency (US-EPA) and Taiwan EPA who sponsored the 8th International E-Waste Management Network (IEMN) Workshop in Manila, Philippines to increase the implementation of environmentally sound management of electronic waste. Government officials from 11 countries (Argentina, Brazil, Chile, Colombia, Egypt, Indonesia, Malaysia, Philippines, Thailand, Tuvalu and Vietnam) enhanced their capacity to: assess downstream markets for e-waste materials; understand the opportunities and impacts of major market changes; examine the benefits and barriers involved with new processes and technologies; identify effective ways of building relationships and working with industry; and describe the elements of a facility audit to protect worker health and safety and the environment. Throughout the workshop, participants identified individual actions to enhance their comprehensive programs for the collection, reuse, and recycling of e-waste, as well as, collective and IEMN team actions to achieve our shared mission of increasing the implementation of environmentally

sound management of e-waste (United States Environmental Protection Agency, 2022).

In the Philippines, the Project 1 Phone program, launched in 2014, allows businesses, organizations, and the public to donate old electronic devices for recycling. This initiative conserves natural resources, prevents pollution from hazardous waste disposal, and reduces energy consumption and greenhouse gas emissions. The Globe E-waste Zero program, in 2019 alone, collected over 343,000 kg of e-waste, with a total collection exceeding 1.2 million kilograms. Collaboration with 52 corporations and organizations, including Unionbank of the Philippines, Huawei Philippines, and the Ayala Group of Companies, has been instrumental in the program's success (Globe Telecom, Inc., 2021). A study by UNIDO and EcoWaste Coalition found that only 28 out of 135 registered TSD facilities in the Philippines process e-waste. The informal sector benefits from these items but their dismantling and recycling methods pose health risks. Globe's E-waste Zero program aims to influence consumer behavior by promoting the extension of electronic gadget lifespan and responsible recycling of end-of-life devices. (Globe Newsletter, 2021).

The continuous dependence on electronic equipment at home and in the workplace has given rise to a new environmental challenge. Governments around the world have started instituting policies to address the growing problem of e-waste. In Japan, for example, the Home Appliances Recycling Law came into force in April 2001. This law targets four items: televisions, refrigerators, washing machines, and air conditioners. It states that retailers are obliged to accept end-of-life appliances from consumers and take them to manufacturers or importers for recycling. Consumers are charged fees for the collection, transportation, and recycling of their discarded appliances (Guidance Manual for Extended Producer Responsibility, 2001).

The Climate Change Commission (CCC) is recommending measures to address the growing problem of discarded electrical and electronic equipment in the Philippines, one of Southeast Asia's top generators of this e-waste. In a report published on October 16, 2020, entitled PCC Pitches Moves vs. E-waste, CCC Vice Chairperson and Executive Director Emmanuel de Guzman stated that our government must develop a national policy and regulatory framework on e-waste management. He is also recommending formulation of a national strategy and action plan for institutionalizing e-waste recycling and collection. There's a need to likewise undertake relevant research and technology development aside from stopping illegal entry of hazardous e-waste into the country, he continued. De Guzman raised urgency for action, noting global e-waste already ballooned to nearly 54 million metric tons (MT) last year. That's 21 percent more than the global e-waste level in 2014, he noted Launched earlier this year, UN's 'The Global E-Waste Monitor 2020' report estimates e-waste generated worldwide will already exceed 74 million MT by 2030. Higher consumption of electrical and electronic equipment,



as well as short life cycle of and limited repair options for these, will likely fuel such increase, the report warned.

De Guzman added that cooperation among government and private business and manufacturers and consumers in driving innovations, and transition of sectors into a circular economy, are key to climate resilience and sustainable future of the Filipino nation (Teves, 2020).

On one hand, DENR Administrative Order 2013-22, stated that generators, transporters, and treatment, storage, and disposal (TSD) facilities of hazardous waste, including WEEE, are required to register with EMB to document and provide comprehensive details of each movement of the waste with the corresponding permit to transport (PTT) and manifest or the chain-of-custody document. A TSD facility is required to issue a certificate of treatment once the waste has been treated. This cycle follows the cradle to grave management of hazardous waste, tracking it from the point of generation to their transport, recycling, treatment, and disposal (DENR News Events, 2020).

Applications for registration as generator, transporter, and TSD facility, including PTT and manifest can now be processed through the Online Hazardous Waste Management System, which has been operational since June 1, 2020. The DENR also monitors the importation and export of hazardous wastes through a regulatory procedure, which requires importers and exporters to secure permits and clearances from the EMB. Importation of recyclable materials containing hazardous substances intended for recycling, recovery, or reprocessing may be allowed subject to the compliance requirements of EMB, as well as the requirements and procedures prescribed by the Basel Convention (DENR News Events, 2020).

To further strengthen the existing regulations, EMB Director William Cunado announced that the DENR is set to issue the Technical Guidelines on the Environmentally Sound Management of WEEE. This draft administrative order aims to provide the framework mechanism for the appropriate management of WEEE, reduce the amount of electrical and electronic equipment (EEE) type of waste and the hazards brought about by its components, and promote the reuse of second-hand or used EEE and valorization of its waste component. It also seeks to encourage involvement of all relevant agencies and stakeholders in the life cycle of EEE and institutionalize the principle of “extended producers' responsibility,” which will implement the circular economy concept on waste management. The guidelines will also include provisions distinguishing used or second-hand from waste, which is patterned or aligned with the Basel Convention Technical Guidelines on the transboundary movements of e-waste and used EEE. At present, EMB is implementing a project entitled “Implementation of PCB Management Programs for Electric Cooperatives and Safe E-wastes Management” with support from the Global Environment Facility and the United Nations Industrial Development Organization (UNIDO). The UNIDO-assisted project has established linkages with the community-

based organizations in the informal sector, through EcoWaste Coalition, as contractor to undertake awareness raising activities (DENR News Events, 2020).

OBJECTIVES OF THE STUDY

This research aimed to describe the level of practices, challenges, and extent of implementation of dumping of e-waste among stakeholders in the NCR.

Specifically, this research sought answers to the following questions:

1. What is the level of practices, challenges, and extent of implementation on dumping of e-waste among stakeholders?
2. Are there significant differences in the practices, challenges, and extent of implementation on dumping e-waste among stakeholders?
3. What program will be developed to enhance the practices, challenges, and extent of implementation on dumping of e-waste among stakeholders?

METHODOLOGY

Research Method

This study employed Quantitative Research Design which involved large sample sizes, concentrating on the quantity of responses where each respondent was asked the same questions. The data was supplied in a numerical format and analyzed in a quantifiable way using statistical methods (DJS Research, 2023).

Further, this research utilized descriptive research as its methodology. As widely accepted, the descriptive method of research is a fact-finding study that involved adequate and accurate interpretation of findings. According to McCombes (2020), descriptive research aims to describe a population, situation, or phenomenon precisely and systematically, thus, this methodology was utilized for it will accurately describe and evaluate the levels of practices, challenges, and extent of implementation on dumping of e-waste by certain stakeholders.

This portion gives a detailed delineation of the participants in the study, the data-gathering instruments utilized, and the procedures followed in the data gathering.

The researcher utilized simple random sampling in choosing the respondents. In this sampling method, it only involves a single random selection and requires little advanced knowledge about the population (Thomas, 2022). It is considered as the simplest and most common method of selecting a sample, in which the sample is selected unit by unit, with equal probability of selection for each unit at each draw (Singh, 2003).

The respondents of the study were randomly selected by the researcher from the given list of personnel provided by the offices of PNP Maritime Police, DENR, and Philippine Coast Guard within the National Capital Region. The researcher chose the said government agencies because they were the most appropriate



respondents for this study since they have at least a transparent background and have been designated on tasks related to

environmental electronic waste problems in their area of responsibilities.

Table 1
Distribution of the Respondents

Type of Stakeholder	f	%
PNP-Maritime Group	30	33
DENR Personnel	30	33
Philippine Coast Guard	31	34
Total	91	100

The research instrument was a researcher-made questionnaire composed of four parts formulated based on the existing literature and results of previous studies.

The first part of the survey instrument focused on the respondents' data. Declaration of their name was optional. Respondents came from the PNP Maritime Group, DENR, and the Philippine Coast Guard. The second part contains the practices on dumping of e-waste among stakeholders. The study examined the awareness and adherence to government regulations and policies for environmental protection against illicit e-waste dumping. It also explored respondents' disposal methods and their understanding of the harmful nature of e-waste. These findings will inform environmental protection activities and best practices. The third part includes the challenges of dumping of e-waste among stakeholders. It provided for the hindrances or challenges of a stakeholder in facing the environmental protection against illicit dumping of e-waste such as ignorance, lack of funds and infrastructures and the like. The fourth part aimed to determine the extent of implementation on dumping of e-waste among stakeholders. It provides current methods of storage, processing, recycling, and disposal of e-waste to immense potential to avoid harm in human health and the environment.

Data Collection

The researcher-made questionnaire was validated by at least three validators who were experts in the field and who possess knowledge and understanding about e-waste dumping. They were tasked to deliver face and content validity of the questionnaire with the aim to evaluate whether the questions would effectively capture the topic under investigation and to determine the internal validity. For the reliability of the researcher-made questionnaire,

the researcher conducted pilot-testing with fifteen personnel coming from the office of PCG, DENR, and PNP Maritime Police. As a matter of courtesy, a request letter was sent asking permission to conduct a survey. Upon receipt of their permission to conduct the survey, the researcher-made questionnaires were distributed to the offices of the stakeholders and formally conducted the data gathering. Henceforth, the researcher communicated with the respondents and then collected all the forms.

Further, the data obtained from the questionnaire was computed and analyzed statistically using SPSS (Statistical Package for Social Sciences). The results were interpreted using descriptive statistical tools. The measures of descriptive statistics like mean and standard deviation were used to interpret the numerical data on the level of practices, challenges, and extent of implementation on dumping of dumping of e-waste among stakeholders.

RESULTS AND DISCUSSIONS

Level of Practices on Dumping of E-waste among Stakeholders

Table 2 shows the practices on dumping of e-waste specifically among stakeholders and in totality. Based on the derived mean, it intends to describe that the respondents composed of the Philippine Coast Guard (M=3.73, SD=0.25), PNP Maritime Police (M=3.71, SD=0.23), and the DENR Personnel (M=3.51,SD=0.49), represents a “Highly Practiced” level as well as in totality (M=3.65, SD=0.35), an indication of a very good execution and implementation of practices in view of government regulations, policies, and their adherence to various activities in relation to illicit dumping of e-waste.



Table 2
Level of Practices on Dumping of E-waste among Stakeholders

Stakeholder	Mean	Descriptive Rating	SD
DENR Personnel	3.51	Highly Practiced	0.49
Philippine Coast Guard	3.73	Highly Practiced	0.25
PNP Maritime Police	3.71	Highly Practiced	0.23
Grand Mean, Descriptive Rating, and SD	3.65	Highly Practiced	0.35

This is supported by the article written by Poppenheimer (2013), minimizing e-waste starts with reducing the purchase of new electronic devices and equipment. Before buying a new gadget, consider if an upgrade or new device is truly necessary. Making mindful purchasing choices benefits both the environment and your finances. According to Zaccarà (2008), consumer behavior is vital in environmental actions like buying environmentally friendly electronics, retaining, and using electronics to lessen their harmful effects on the environment, and criticizing disposal procedures. Environmental ethics serves as a bridge between the other two disciplines and analysis of the three critical disciplines that are necessary to the improvement and protection of the environment: environmental education, environmental laws, and ethics (Solomon, 2010).

Level of Challenges on Dumping of E-waste among Stakeholders

Table 3 presents the scores that describe the challenges experienced by stakeholders on e-waste dumping activities. Based on the derived mean, it intends to describe that the PNP Maritime Police (M=3.63, SD=0.29) shows “Very Difficult” level which means that they find it very difficult to address the challenges they encountered in view on dumping of e-waste. On the hand, the Philippine Coast Guard (M=3.47, SD=0.45) and the DENR Personnel (M=3.24, SD=0.82) represents a “Difficult” level as well as in totality (M=3.44, SD=0.58), an indication of a poor capacity to address the challenges identified in view on dumping of e-waste.

Table 3
Level of Challenges on Dumping of E-waste among Stakeholders

Stakeholder	Mean	Descriptive Rating	SD
DENR Personnel	3.24	Difficult	0.82
Philippine Coast Guard	3.47	Difficult	0.45
PNP Maritime Police	3.63	Highly Difficult	0.29
Grand Mean, Descriptive Rating, and SD	3.44	Difficult	0.58

According to Lundgren (2012), among the general challenges this presents are the limited capacity and capability of responsible institutions, poor implementation of legal instruments, poor participation among stakeholders, and a lack of specific definition, legal instrument, policy, or strategy.

Shahabuddin et al. (2023) stated that there are many challenges and opportunities regarding e-waste and its management. One of the key challenges is the lack of e-waste legislation.

Level of Extent of Implementation on Dumping of E-waste among Stakeholders

Table 4 shows the level of extent of implementation towards e-waste dumping activities. Based on the derived mean, it intends to describe that the DENR Personnel (M=4.42, SD=0.62) shows a “Very Good” level which means that the extent of implementation on provisions or conditions in dumping of e-waste is moderately extensive and functioning well. On the other hand, the Philippine Coast Guard (M=4.73, SD=0.20) and the PNP Maritime Police (M=4.67, SD=0.26) represents an “Excellent” level as well as in totality (M=4.61, SD=0.42), an indication that the extent of implementation on provisions or conditions in dumping of e-waste is very extensive and functioning efficiently.



Table 4
Level of Extent of Implementation on Dumping of E-waste among Stakeholders

Stakeholders	Mean	Descriptive Rating	SD
DENR Personnel	4.42	Very Good	0.62
Philippine Coast Guard	4.73	Excellent	0.20
PNP Maritime Police	4.67	Excellent	0.26
Grand Mean, Descriptive Rating, and SD	4.61	Excellent	0.42

In the study of Alam (2016), it describes the extent of implementation against illegal dumping of e-waste of which about 70% of the heavy metals present in the landfills come from the discarded and improper recycling of the waste. Equally, Yenita, and Widodo (2020) described that the increasing number of e-waste in another Asian country, which is Indonesia provide several factors, including: the lack of information, inaccuracy of data and limited sources about e-waste and the number of uses of electronic devices that can be accessed by public, the absence of public awareness in managing e-waste in a minimum scale, and different understanding between government institutions regarding of the regulations of e-waste and its management procedures.

Significant Difference in the Practices on Dumping of E-waste among Stakeholders

There is a significant difference in the practices on dumping of e-waste among stakeholders, $F(2,88)=3.595$, $p=.032$. Table 5

shows the result. This proves that the stakeholders who are involved in dumping of e-waste utilize various practices pertaining to e-waste disposal.

A review of published reports on e-waste problems in developing countries, and countries in transition, showed that China, Cambodia, India, Indonesia, Pakistan, Thailand, and African countries such as Nigeria, receive e-waste from developed countries although specific e-waste problems differ considerably between countries. For instance, African countries mainly reuse disposed electronic products whereas Asian countries dismantle those often-using unsafe procedures (Kiddee et al., 2013).

Furthermore, manufacturers of electronic goods have made efforts to safely dispose of e-waste using advanced technologies in both developed and developing countries (US Government Accountability Office, 2008; Widmer et al., 2005).

Table 5
Significant Difference in the Practices on Dumping of E-waste among Stakeholders

Sources of Variation	Sum of Squares	df	Mean Square	F	p
Between Groups	.846	2	.423	3.595*	.032
Within Groups	10.361	88	.118		
Total	11.207	90			

Note. Asterisk (*) means significant at .05 level of probability.

The Philippine Coast Guard has the highest level of practice on dumping of e-waste among stakeholders. This could be attributed to their comprehensive knowledge and awareness of key aspects of e-waste, such as its definition, composition, and the potential impact of improper disposal on human health and the environment. According to Borthakur, et al. (2016), e-waste

disposal behavior and awareness could be helpful for a particular country to devise inclusive e-waste management strategies to adequately address their current e-waste crisis.



Table 6
Post-hoc Comparison of Means for Practices on Dumping of E-waste among Stakeholders

Type of Stakeholder	Level of Practices (Mean)
DENR Personnel	3.51 ^a
PNP Maritime Police	3.71 ^{ab}
Philippine Coast Guard	3.73 ^b

Note. Same letters mean not significant, significant if otherwise.

Significant Difference in the Challenges on Dumping of E-waste among Stakeholders

Similarly, there is a significant difference in the challenges on dumping of e-waste among stakeholders, $F(2,88) = 3.659$, $p = .030$. Table 11 shows the result. This proves that the stakeholders have different experiences in view of e-waste dumping in which the challenges they encountered are varying.

Seemingly, e-waste dumping is a global challenge. Currently, e-waste is considered a top concern for sustainable consumption and production. About 17.4% of the globally generated e-waste was recycled, whereas the remaining 82.6% was either discarded, untreated, or informally processed (Ramanayaka, Keerthanan, & Vithanage, 2020). It is important to note that e-waste is an emerging problem within both developed and developing nations and requires special attention (Venugopal et al., 2022).

Table 7
Significant Difference in the Challenges on Dumping of E-waste among Stakeholders

Source of Variation	Sum of Squares	df	Mean Square	F	d
Between Groups	2.308	2	1.154	3.659*	.030
Within Groups	27.756	88	.316		
Total	30.064	90			

Note. Asterisk (*) means significant at .05 level of probability.

The PNP Maritime Police at this time has the highest level of challenges met on dumping of e-waste among stakeholders. This might be due to the major obligation on this type of stakeholder and the greater responsibilities in their hands to understand the environmental consequences of the illegal dumping of e-waste as well as recognition to the individual and social responsibility to

conserve natural resources for future generations. This can be supported by Odili et al. (2018) which discussed that several recent studies in most parts of the world, e-wastes are not well managed because of unawareness of people and weak enforcement of laws as regards to conservation of natural resources and environment.

Table 8
Post-hoc Comparison of Means for Challenges on Dumping of E-waste among Stakeholders

Type of Stakeholder	Level of Challenges (Mean)
DENR Personnel	3.24 ^a
Philippine Coast Guard	3.47 ^{ab}
PNP Maritime Police	3.63 ^b

Note. Same letters mean not significant, significant if otherwise.

Significant Difference in the Extent of Implementation on Dumping of E-waste among Stakeholders

In view of the extent of implementation on dumping of e-waste among stakeholders, there is a significant difference, $F(2,88) = 4.965$, $p = .009$. Table 13 shows the result. This proves that the stakeholders have different ways of implementation in view of e-waste dumping.

According to Liu et al. (2022), the government plays a crucial role as the supervisor and manager of WEEE (Waste Electrical and Electronic Equipment) internet recycling. It has authority over key stakeholders such as producers, recyclers, processors, and consumers. As stated by Acquah et al. (2021), the participation degree of residents in WEEE Internet recycling is very important to improve the



recovery rate. Knowing the extent of implementation among residents and the governments as stakeholders clearly enlisted their contribution to address the e-waste dumping.

Table 9
Significant Difference in the Extent of Implementation on Dumping of E-waste among Stakeholders

Square of Variance	Sum of Squares	df	Mean Square	F	p
Between Groups	1.619	2	.809	4.965*	.009
Within Groups	14.345	88	.163		
Total	15.964	90			

Note. Asterisk (*) means significant at .05 level of probability.

Both the PNP Maritime Police and the Philippine Coast Guard has the highest levels for extent of implementation on dumping of e-waste among stakeholders. This might be due to the major obligation on these types of stakeholders and their absolute

commitment from all major stakeholders, including consumers, and recyclers, to make e-waste management convenient. Thus, organizations positively affect the proactive orientation of stakeholders (Pinto, 2019).

Table 10
Post-hoc Comparison of Means for Extent of Implementation on Dumping of E-waste among Stakeholders

Type of Stakeholder	Extent of Implementation (Mean)
DENR Personnel	4.42 ^a
PNP Maritime Police	4.67 ^b
Philippine Coast Guard	4.73 ^b

Note. Same letters mean not significant, significant if otherwise.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, the researcher concluded the following:

1. The stakeholders execute a very good implementation of practices on dumping of e-waste, an indication of adherence to various activities in relation to illicit dumping of e-waste. However, they experience very difficult ways of addressing the challenges of dumping e-waste, an indication of poor capacity to address challenges identified in view on dumping of e-waste. In addition, the stakeholders' extent of implementation shows that the provisions or condition is very extensive and functioning perfectly pertaining to dumping of e-waste, an indication that the stakeholders are functioning efficiently.
2. It was also concluded that the Philippine Coast Guard has the highest level of practices and extent of implementation on dumping of e-waste, while the PNP Maritime Police has the highest level of challenges on dumping of e-waste. Therefore, it shows that the Philippine Coast Guard were religiously doing the best practices which resulted to an efficient implementation on dumping of e-waste, while the

PNP Maritime Police needs to find ways to overcome and properly address the challenges on dumping of e-waste.

Align to the findings and conclusions, the researcher recommends the following:

1. Stakeholders may participate in various seminars/conferences or workshops pertaining to reusing and recycling of e-waste as well as adopting innovative programs for the reuse of e-waste as practiced in different industries and sectors. In addition, they may create programs or projects in their respective offices or various departments pertaining to e-waste recycling.
2. Regular symposia may be conducted to different stakeholders pertaining to effective data collection and dissemination on material flow of e-wastes. The offices of the identified government agencies must continue to implement electronic waste segregation and separation of collection of e-waste be adhered to/by the community as mutual cooperation to the implemented programs of the LGUs.



3. The stakeholders may take the initiative to lobby and to suggest the concerned offices, to establish an accessible drop-off center to segregate and properly dispose of the e-waste at the same time may upgrade the various ways of collecting and transferring electronic waste to designated safe material recovery facility.
4. The stakeholders may increase the cooperation pertaining to the establishment of linkages with the community-based organizations in the informal sector, as well as to build a strong partnership with the public sector, the commercial sector, non-governmental organizations, and the community to implement innovative policies that will improve e-waste management and sound governance must be done.
5. Stakeholders may strengthen the ways of educating the people involved in view of hazardous nature of e-waste by regularly conducting seminars and talks related to the topic by resource speakers who are experts in the field.
6. Create programs on incentives and rewards for the stakeholders that would promote their participation at all levels in dealing with e-waste management for every office in their respective agency, as well as to intensify conformity towards local policies against dumping of e-waste through formal sanctions and punishments.
7. Examine and evaluate the private and public e-waste management system to carry out the requirements effectively and efficiently in the implementation of environmental management.
8. Designate priority funding for local government units to meet the needs in implementing the goals of the law on e-waste management.
9. Allow the Local Government Units (LGUs) to enact multiple ordinances to improve policy framework on waste electrical and electronic equipment (WEEE), placing an emphasis on fines, penalties and appropriate sanctions as well as strictly impose in making each

individual accountable for delivery of e-waste to address one of the fastest growing waste streams in the Philippines.

10. For more efficient and effective implementation of e-waste management through the support of the different government agencies like DENR, PNP Maritime Group, and PCG, with the participation of other local government units, the following are recommended to be studied by future researchers: (a) revisit the environmental laws and their impact on the community; (b) examine the different programs and offices in protecting the environment; and (c) align extension activity based on research outputs using qualitative or mixed design for future researchers.

Enhancement Program for Practices, Challenges, and Extent of Implementation on Dumping E-waste among Stakeholders

This part introduces programs and activities to improve the practices, challenges, and extent of implementation on dumping of e-waste among stakeholders. The enhancement program and activities were based on the items with the lowest mean item as revealed by the result.

As to practices, “the reuse of second-hand or used electrical and electronic equipment (EEE) and valorization of its waste component” gained the lowest mean. On the other hand, in view of challenges, “ineffective data collection and dissemination on material flow of electrical and electronic equipment” gained the lowest mean. Finally, in view of the extent of implementation, “setting up an accessible drop-off center for e-waste like IT Dept for the recycling items not to pile up” gained the lowest mean.

Relating the analytical role of the gathered data of the perceived assessment on practices, challenges, and extent of implementation across the three groups of stakeholders: DENR Personnel, Maritime Police, and the Philippine Coast Guard.

Enhancement Program for Practices on Dumping of E-waste

Item	Objective	Strategies	Persons Involved	Budget	Expected Outcome
The reuse of second-hand or used electrical and electronic equipment (EEE) and valorization of its waste component	Improve and enhance the poor practices on dumping of e-waste	Conduct monthly seminars/conferences or workshops pertaining to reusing and recycling of e-waste Adoption of innovative programs for the reuse of e-waste in different industries and sectors	People who are directly involved to e-waste disposal such as PNP Maritime Police, Philippine Coast Guard, DENR, BFAR, and the Bureau of Customs It will also include the LGUs, Ship	Funds may be derived from the government, non-government organizations and concerned citizens	Reusing and recycling of e-waste will be part of best practices in view of e-waste disposal Industries and other sectors will develop innovative programs



		Creation of a program/ projects in offices or various departments for e-waste recycling	Owners, Seafarers, NGOs, and Environmentalists as well as other citizens who are concerned with pollution and proper waste disposal, particularly with e-waste		pertaining to reuse, recycle or proper disposal of e-waste with life-long sustainability
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Enhancement Program for Challenges on Dumping of E-waste (cont'd)

Item	Objective	Strategies	Persons Involved	Budget	Expected Outcome
Ineffective data collection and dissemination on material flow of electrical and electronic equipment	Improve the capacity to face the various challenges pertaining to e-waste disposal	Conduct regular symposia about effective data collection and dissemination on material flow of e-wastes Strengthen the ways of educating the people involved in view of toxicity or hazardous nature of e-waste	People who are directly involved to e-waste disposal such as PNP Maritime Police, Philippine Coast Guard, DENR, BFAR, and the Bureau of Customs It will also include the LGUs, Ship Owners, Seafarers, NGOs, and Environmentalists as well as other citizens who are concerned with pollution and proper waste disposal, particularly with e-waste	Funds may be derived from the government, non-government organizations and concerned citizens	People will be knowledgeable of the hazardous impact of improper disposal of e-waste as well as gaining awareness pertaining to these issues Stakeholders will be equipped with adequate knowledge in view of the material flow of e-waste disposal

Enhancement Program for Extent of Implementation on Dumping of E-waste (cont'd)

Item	Objective	Strategies	Persons Involved	Budget	Expected Outcome
Setting up an accessible drop-off center for e-waste like IT Dept for the recycling items not to pile up	Improve and enhance the poor implementation on dumping of e-waste	Lobbying and suggesting the right office to establish an accessible drop-off center to segregate and properly dispose of the e-wastes Intensify obedience towards local policies against	People who are directly involved to e-waste disposal such as PNP Maritime Police, Philippine Coast Guard, DENR, BFAR, and the Bureau of Customs. It will also include the LGUs, Ship Owners, Seafarers, NGOs,	Funds may be derived from the government, non-government organizations and concerned citizens.	Existence of adequate drop-off centers for proper disposal and segregation of e-wastes. With rigid sanctions and punishments, citizens and responsible agencies and departments will be religiously



		dumping of e-waste through formal sanctions and punishments Upgrade the various ways of collecting and transferring electronic waste to designated safe material recovery facility	and Environmentalists as well as other citizens who are concerned with pollution and proper waste disposal, particularly with e-waste.		following the provisions and laws pertaining to proper e-waste disposal.
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EMPOWERMENT OF YOUNG LECTURERS: INDIAN CONTEXT

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ABSTRACT

Empowering young lecturers is essential for the sustainable development of academic institutions. This paper examines various aspects of empowerment and highlights the need for comprehensive mentoring programs, comprehensive professional development opportunities, and comprehensive policies to promote diversity and work-life balance. Recognizing and celebrating the achievements of young faculty not only promotes a positive organizational culture but also contributes to their professional development. Providing resources for research activities and establishing leadership development programs are important to give young faculty the skills and confidence they need to make impactful contributions. By addressing administrative challenges through strategic investment in the right talent, we further strengthen our talent foundation. This article focuses on the holistic approach needed to empower young faculty, recognizing that it has a profound impact on the excellence of individual educators and the academic environment as a whole.

KEY WORDS: Lecturers young lecturers, Educational System, empowerment

INTRODUCTION

शिक्षक कभी साधारण नहीं होता. प्रलय और निर्माण उसकी गोद में पलते हैं। - चाणक्य

Education is one of the most important aspects in for development and growth of any country.

Therefore, education in general and higher education in particular need to be given greater importance than ever to nations that want to modernize and advance.

The Kothari Commission, 1966, said, 'Of all the different factors which influence the quality of education and its contribution to national development, the **quality, competence and character** of teachers are undoubtedly the most significant.' The NEP 2020 too exhorts, 'Teachers truly shape the future of our children – and, therefore, the future of our nation', thereby implying that teachers play the most important role in nation-building by creating high-quality human resources in their classrooms.' [Chari, R. (2020, August 30). NEP 2020: Empowering the teacher. *Times of India Blog*.]

In this situation role lecturers becomes more vital as young lecturers offer academia a new point of view. Their enthusiasm, energy, and modern knowledge are crucial ingredients in developing engaging learning environments. Institute should allow young lecturers, the freedom to take the initiative, form their own judgments, and create and apply solutions. But presently, young lecturers are facing challenges like lack of autonomy, discrimination, technological advancement, related restrictions on research and teaching and a result-oriented approach, ignoring the need for an advanced, broad-based curriculum that meets the diverse needs of students. That is why

it is crucial to support the young lecturers in order to (a) Boost work productivity, (b) Enhance students' academic performance, and achievements and by it strengthening our educational system as a whole. Institute should allow young lecturers, the freedom to take the initiative, form their own judgments, and create and apply solutions.

Short and Rinehart (1992) identified teacher empowerment as having six features: (i) Decision making (ii) professional growth; (iii) status; (iv) self-efficacy; (v) autonomy; and (vi) impact. [Neetu & Nancy (2019), Empowerment of Young Lecturers]

CHALLENGES FOR YOUNG LECTURERS

Young lecturers, like all educators, are faced with a range of challenges in their roles. There are challenges that can be both professional and personal. Young lecturers often face common challenges:

- Lack of Autonomy and Representation:** Young Lecturers often face constraints in shaping their curriculum and pursuing research initiatives. Their capacity to bring innovation into their teaching and captivate students may be impeded due to the limited autonomy they have. Furthermore, these Young Lecturers might find themselves excluded from decision-making processes at the departmental or institutional levels. The absence of their input can lead to the development of policies and practices that do not adequately address the specific challenges and requirements they encounter.
- Understanding Changing Technology:** Young Lecturers face diverse technological hurdles in the current educational environment, including limited proficiency in



technology, inadequate access to technological resources, challenges in engaging students in online learning, the need to adapt to swiftly evolving technology, Balancing Technology, pedagogy and disparities in digital access among students.

3. **Lack of research culture:** Young lecturers are required to engage in research alongside their teaching duties. Striking a balance between these dual responsibilities poses a challenge, particularly as they are in the process of building their research portfolios. But frequently face challenges due to the absence of a strong research culture, impeding academic progress. Insufficient support, constrained resources, and a lack of focus on research activities create an environment where scholarly exploration and innovation aren't adequately fostered, thereby affecting the overall academic excellence.
4. **Departmental Politics:** Young lecturers may face political complexities in academia, where career advancement can be influenced by power dynamics, institutional structures, and diverse ideologies within the academic environment.
5. **Work-Life Balance:** Attaining a balance between work and personal life is essential yet frequently difficult for young lecturers. Effectively managing time becomes imperative when handling the demands of teaching, research, and administrative duties simultaneously.
6. **Administrative tasks:** Like their more experienced counterparts, young educators often shoulder administrative duties in addition to their roles in teaching and research. This extra workload has the potential to induce unnecessary stress and draw their attention away from the core responsibilities of teaching and research.

STRATEGIES TO ADDRESS CHALLENGES

Young lecturers should receive essential resources, fostering not only their personal professional development but also for contributing to strengthen the entire educational system. Here are some ways to encourage and assist them:

1. **Inclusion:** Institutions of higher learning ought to establish comprehensive policies promoting equality and diversity, eliminating biases that could hinder the progress of young lecturers. Inclusion in decision-making and policy formulation should extend beyond seniority as the sole criterion.
2. **Research Assurances and Skill Development:** Providing young lecturers with research grants and funding enables them to conduct groundbreaking research, contributing to advancements in their field. Institutions should invest in their continual professional development by supporting attendance at workshops and conferences, offering duty leave, and providing resources to enhance both research and instructional skills.
3. **Mentorship Programs:** Mentorship initiatives, where seasoned faculty members offer guidance to young lecturers, can prove highly advantageous. This fosters a sense of inclusion and facilitates knowledge exchange, nurturing a positive relationship between experienced and young lecturers and ultimately reducing internal politics over time.

4. **Work-Life Balance:** Encouraging a healthy work-life balance is crucial to prevent burnout and ensure the long-term well-being of young lecturers, the educational system, society and the nation as a whole because ultimately, healthy people make a healthy nation, whether it be physical health or mental health.
5. **Other Resources:** Institutions should prioritize long-term gains over short-term cost-cutting measures. Rather than burdening young lecturers with administrative duties, institutes should invest in the necessary human resources for such tasks. This approach allows young lecturers to focus on their core responsibilities in teaching and research, fostering overall development of the institute.

CONCLUSION AND RECOMMENDATIONS

In Summarise, empowering young lecturers is vital for the thriving and dynamic nature of academic institutions. By addressing the distinctive challenges, they encounter, we can cultivate an educational environment that is more inclusive and innovative. To empower young lecturers, it is crucial to implement thorough mentorship programs and provide abundant opportunities for professional development. Advocating for inclusive policies that champion diversity and work-life balance is essential, along with acknowledging and commemorating the accomplishments of young lecturers. Furthermore, institutions should dedicate resources to research, initiate leadership development programs, and tackle administrative challenges by investing in appropriate human resources.

Essentially, investing in the comprehensive growth of young lecturers not only enhances the abilities of individual educators but also contributes significantly to the overall excellence of the educational system.

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RELATIONSHIP BETWEEN QUALITY OF LIFE AND SOCIAL SUPPORT AMONG PATIENTS WITH SCHIZOPHRENIA: A CROSS-SECTIONAL STUDY

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ABSTRACT

Purpose: Numerous studies have shown that people with severe mental illnesses like schizophrenia have poor quality of life (QoL) for a variety of reasons, including lingering symptoms, medication side effects, and a lack of social support. Social support is a critical component of treatment in the recovery process for people with mental illness. It has been extensively researched in other psychiatric conditions, but not as much in people with schizophrenia who live in the community. It has been shown that pursuing social support improves the prognosis for schizophrenia. The purpose of this study is to determine the variables linked to quality of life (QoL) and investigate the relationship between QoL and social support in patients with schizophrenia who are in remission.

Methodology: A cross-sectional, descriptive study is carried out in a Psychiatry outpatient department of a hospital in Shivamogga. Patients diagnosed with Schizophrenia as per International Classification Disorders – 10 diagnostic criteria are recruited for the study.

Results:

Originality: The current study is interesting because it investigates the relationship between Quality of Life and Social Support among Schizophrenia patients, which can help people overcome adversity and prevent them from developing mental health problems. Further progress in this area may benefit humanity's overall well-being in a variety of ways.

Type of Paper: Quantitative and cross-sectional.

KEYWORDS: Schizophrenia, Quality of life, Social support.

1. INTRODUCTION

A complex, long-term mental illness, schizophrenia is typified by a wide range of symptoms, such as hallucinations, delusions, disordered speech or behaviour, and diminished cognitive function. For many patients and their families, the disease is incapacitating due to its early onset and protracted course (Lavretsky, et al. (2008). [1]). Negative symptoms, which are defined by loss or deficits, as well as cognitive symptoms, which include problems with attention, working memory, or executive function, frequently lead to disability (Dipiro, et al. (2014). [2]). Furthermore, positive symptoms like suspicion, delusions, and hallucinations can lead to relapse (Lavretsky, et al. (2008). [1]). Since schizophrenia is inherently heterogeneous, opinions on its etiology, pathophysiology, and diagnostic standards are divided (Rector, et al. (2011). [3]).

TYPES OF SCHIZOPHRENIA

It is commonly known that there are two subtypes of schizophrenia: positive and negative. There is still some disagreement regarding the evidence supporting other subtypes, especially one that is disorganized. There may be at least four subtypes of schizophrenia, according to the cluster analysis results: positive, negative, mixed, and disorganized. Patients with minimal symptoms make up a fifth subtype, which suggests the straightforward schizophrenia that Bleuler identified (Stahl, et al. (2013). [4]).

Clinical descriptions are provided for the subgroups designated as "usual," "flagrant," "insightful," and "hypochondriacal." Should these subgroups be confirmed or replicated, they could hold significance when discussing future divisions of the schizophrenia spectrum (Dollfus, et al. (1996). [5]).

INCIDENCE OF SCHIZOPHRENIA IN INDIA AND THE WORLD

Based on data gathered over a century and a half from epidemiological studies, schizophrenia occurs in all populations, with prevalence rates ranging from 1.4 to 4.6 per 1000 people and incidence rates between 0.16 and 0.42 per 1000 people (Carpenter, et al. (1976). [6]).

After the "Ten Country Study" results were interpreted, there was a general consensus that schizophrenia is more common in low- and middle-income countries (LAMICs) than in high-income countries, and that people with the disorder have a better prognosis there. These views have been confirmed by recent publications in the most prestigious scientific medical journals (e.g. Mueser and McGurk 2004) (Jablensky, A (2000). [7]). Sex and diagnostic definition had no effect on incidence in the urban cohort. Females in the rural cohort showed a higher incidence for other diagnostic definitions and a lower incidence for Catego S+ (Menezes, P.R. (2010). [8]).



India is a nation renowned for its diversity and heterogeneity, and it has contributed to some of the earliest descriptions of schizophrenia. While it does not purport to be an exhaustive analysis of all Indian research in these fields, it does highlight some of the trends that have been noted over the past ten or so years (Wig, et al. (1993). [9]). Reviewing studies that were published in the Indian Journal of Psychiatry was done to see if there has been any real shift in this area over the past ten years. A number of studies on schizophrenia that were released between 1990 and 2000 were examined. (Thara, et al. (1993). [10]).

HOW SCHIZOPHRENIA AFFECTS FAMILIES

Throughout the protracted course of the illness, schizophrenia places a significant burden on both the person with the disorder and his or her family. The general overview of the advantages and disadvantages of schizophrenia for family caregivers (Avasthi, et al. (2004). [11]). Despite the introduction of novel treatment and care approaches in the last fifteen years, individuals with schizophrenia are still susceptible to relapses, which can result in severe symptoms such as delusions, hallucinations, and disruptive behavior, causing significant distress for all those affected (Shiraishi, et al. (2019). [12]). At least 25% of people worldwide suffer from mental illness, which causes a great deal of stress and hardship for them and their families. However, little is known about how this illness affects the quality of life for families. (Brown, et al. (1972). [13]). The findings imply that treating the patient's family support system better may have a positive impact on the patient's psychotic symptoms and social adjustment (Walton-Moss, et al. (2005). [14]). The influence of a sibling with mental illness on the lives of the subjects varied and was perceived to originate from both the family and the sibling, albeit in distinct ways (Hamada, et al. (2003). [15]).

QUALITY OF LIFE

Although QOL is regarded as a crucial result of treating schizophrenia, little is known about the factors that influence QOL in this population (Gerace, et al. (1993). [16]).

There has been a great deal of variation in research and conclusions about how schizophrenia affects quality of life (QOL). According to a meta-analysis of research using standardized measures, QOL in people with schizophrenia is noticeably lower than in healthy controls. (Narvaez, et al. (2008). [17]).

BURDEN OF CARE AND SOCIAL SUPPORT

A cross-sectional study involving 301 family caregivers was conducted. Our research suggests that caregiver burden is significantly impacted by family function. More research is needed to determine whether perceived social support plays a protective role in caregivers' health during the caring process (Dong, et al. (2019). [18]). There is little agreement on the connection between social support and health outcomes despite the wealth of research on the topic, both as a main focus of investigation and as a variable in larger studies. The study's conclusions imply that hospice social support services ought to be customized to the support requirements of the caregiver and

should include an evaluation of the kind of assistance that should be provided (Chiou, et al. (2009). [19]).

2. REVIEW OF LITERATURE

Jenille M. Narvaez et al. (2008) studied Subjective and Objective quality of life in Schizophrenia. In this study, the clinical, functional, and cognitive predictors of subjective and objective quality of life in schizophrenia outpatients were looked at independently. 88 outpatients with schizophrenia or schizoaffective disorder were among the participants. More severe depressive symptoms and improved neuropsychological functioning were independent predictors of worse subjective QOL in the presence of multiple predictor variables. A lower objective QOL was predicted by more severe negative symptoms. Subjective or objective QOL did not correlate with functional capacity variables (Narvaez, et al. (2008). [17]).

Prabhakaran S et al. (2021) studies the Relationship between quality of life and social support among patients with schizophrenia and bipolar disorder. The study intends to determine the factors associated with quality of life (QoL) and investigate the relationship between QoL and perceived social support among patients with BD in remission and schizophrenia. For patients with schizophrenia alone, social support and quality of life showed a strong positive correlation. Therefore, it is imperative to incorporate psychosocial interventions that enhance social support into standard patient care (Prabhakaran S, et al. (2021). [20]).

In Psychiatric Symptoms and Quality of Life in Schizophrenia, Eack S. M. and colleagues (2007) found that while general psychopathology consistently showed a negative relationship with QoL across all study samples and treatment settings, positive and negative symptoms were more strongly related to poor QoL among studies of schizophrenia outpatients. Future research and treatment development implications are examined (Eack, et al. (2007). [21]).

Munikanan (2017) examined the relationship between social support and quality of life in patients receiving community mental health services who have schizophrenia. At Hospital Kuala Lumpur (HKL), 160 people with schizophrenia undergoing community psychiatric services participated in a cross-sectional study. Perceived social support was low for roughly 72% of the respondents, with friends and family providing the lowest level of support, followed by significant others. In Malaysia, individuals with schizophrenia who are already receiving official psychiatric services are significantly lacking in social support (Munikanan, et al. (2017). [22]).

Rudnick A. and colleagues conducted a study in 2001 to examine the relationship between seeking social support and quality of life in individuals with schizophrenia. Using a sample of 58 outpatients with a diagnosis of schizophrenia who did not have any co-occurring conditions, the study investigated this question. Cross-sectional assessments were made of social support seeking, symptoms (positive, negative, and extrapyramidal), and multidimensional self-reported quality of life. There was an inverse relationship between negative symptoms and the daily living activities quality of life domain. The quality of life was unaffected by other symptoms or social



support-seeking, and there was no interaction between the two in terms of quality of life. Therefore, seeking out social support may not be a helpful (or disruptive) strategy for managing symptoms of schizophrenia (Rudnick, et al. (2001). [23]).

Ruesch and colleagues (2004) conducted a study on occupation, social support, and quality of life in individuals with schizophrenic or affective disorders. The study included 261 subjects (102 women and 159 men), with average ages of 35 for men and 38 for women. Of these, 158 were diagnosed with schizophrenic disorders (ICD-10: F2) and 103 with affective disorders (ICD-10: F3). In this study, the association between an individual's work status and their subjective and objective quality of life (QoL) in individuals with SMI is examined. The findings imply that subjects who work generally have access to a wider social network and receive greater social support. A significant mediating factor in the association between occupation and subjective quality of life is social support. Income has a weak and unfavourable relationship (Ruesch, et al. (2004). [24]).

In a comprehensive and extended research endeavour, Pinho L G and colleagues (2020) conducted a study on Affectivity in schizophrenia: Its relations with functioning, quality of life, and social support satisfaction. The aim of the research was to assess the correlation between affectivity and clinical and sociodemographic traits, functioning, quality of life, and satisfaction with social support in individuals with schizophrenia. cross-sectional investigation on a group of 282 patients with schizophrenia. The findings showed that the following factors were associated with either positive or negative affect: the participants' employment status, gender, whether they smoked, hospitalizations within the previous year, use of benzodiazepines and antidepressants, quality of life, functioning, and satisfaction with social support (Pinho, et al. (2020). [25]).

Dziwota and team conducted a in-depth investigation in 2018, on Social functioning and the quality of life of patients diagnosed with schizophrenia. The study's goal is to present the most significant issues with social functioning and the overall quality of life for patients with schizophrenia, based on research done both in Poland and around the world. The findings showed that a patient's family has a significant impact on their social functioning. When taking the right steps, the patient's family can act as a co-therapist, greatly assisting the patient in adjusting to society and fulfilling a designated role. In the context of social cognition, an analysis of the social functioning disorders in patients with schizophrenia reveals that these disorders stem from a failure to recognize one's own and other people's internal states, despite the fact that mentalization is the foundation of social cognition (Dziwota, et al. (2018). [26]).

3. OBJECTIVES

- 1) To study the demographic profile of patients with schizophrenia
- 2) To find the extent to which patients with schizophrenia perceives social support.

- 3) To establish the quality of life of patients with schizophrenia in different domains.
- 4) To determine the range in each of the quality-of-life domains.
- 5) To find the correlation between perceived social support and quality of life.
- 6) To establish the role of gender differences in quality of life

4. HYPOTHESIS

- 1) There is no difference in the mean value of perceives social support.
- 2) There is no difference in the mean value in the domains of the quality of life.
- 3) There is no correlation between perceived social support and quality of life.
- 4) Gender differences has no influence on quality-of-life domains.

5. METHODOLOGY

A cross-sectional, descriptive study is carried out in a Psychiatry outpatient department of hospital in Shivamogga. Patients diagnosed with Schizophrenia as per International Classification Disorders – 10 diagnostic criteria w recruited for the study.

Sample: 45 patients were studied using nonprobability sampling, recruitment is done based on ICD – 10. Consent taken from the patient as well as the patients relative before conducting the study. Only patients in remission are included.

Instrument: The WHO Quality of life BREF Scale is used to assess quality of life and the Multidimensional Scale of Perceived Social Support is administered to assess social support. In addition, a questionnaire is used to study the psychosocial profile of patients.

Procedure: In a Psychiatry Outpatient department of hospital in Shivamogga, selected the patients diagnosed with Schizophrenia who are in remission. First the consent from patients and their relatives was sought. Confidentiality was assured. Firstly, general Psycho-Social profile was taken. Two scales were administered, namely

1.The WHO - QOL Quality of life BREF - The WHOQOL is a quality-of-life assessment developed by the WHOQOL Group with fifteen international field centres, simultaneously, in an attempt to develop a quality-of-life assessment that would be applicable cross-culturally. The WHOQOL-BREF is a 26-item instrument consisting of four domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environmental health (8 items); it also contains QOL and general health items.

2. The Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) is a 12-item measure of perceived adequacy of social support from three sources: family, friends, & significant other; using a 5-point Likert scale (0 = strongly disagree, 5 = strongly agree) (Zimet, et al. (1990). [27]).

6. RESULTS

Demographic profile of patients.

Table 1: Age.

		Frequency	Percent
Valid	(18 to 30)	11	24.4
	(31 to 40)	19	42.2
	(41 to 53)	15	33.3
	Total	45	100.0

As see in Table 1, vast majority of the patients (42%) were in the age group 31 to 40 years. 33% were in the age group 31 to

40 years. A small percentage (25%) of them were in the age group 18 to 30 years.

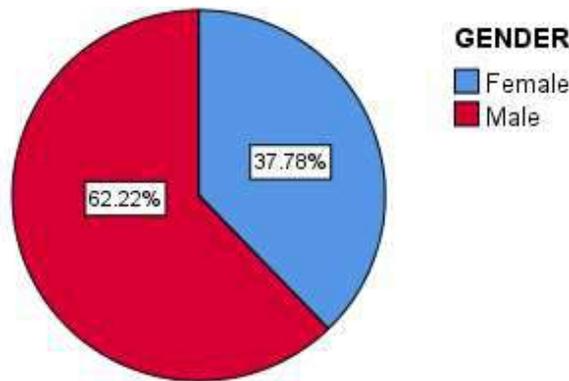


Figure 1: Gender

38% were female patients comparatively lesser than male patients 62%.

Table 2: Marital Status

	Frequency	Percent
Married	36	80.0
Unmarried	7	15.6
Divorced	2	4.4
Total	45	100.0

80% were married, 16% unmarried and 4% either divorced or widow.

It was intended to find perceived support using the Multidimensional Scale of Perceived Social Support Scale. The

least one has scored was 2 and highest 7. Higher score indicates better perception of social support. The reliability of this scale in this case was found to be Alpha=0.918 which is excellent.

Table 3: Perceived Support

	Frequency	Percent
Low (1 - 2.9)	4	8.9
Moderate (3 - 5)	32	71.1
High (5.1 - 7)	9	20.0
Total	45	100.0

9% of the patients overall perceived low support from significant others, family and friends. A vast majority of

patients (71%) perceived moderate support and 20% perceived high support.

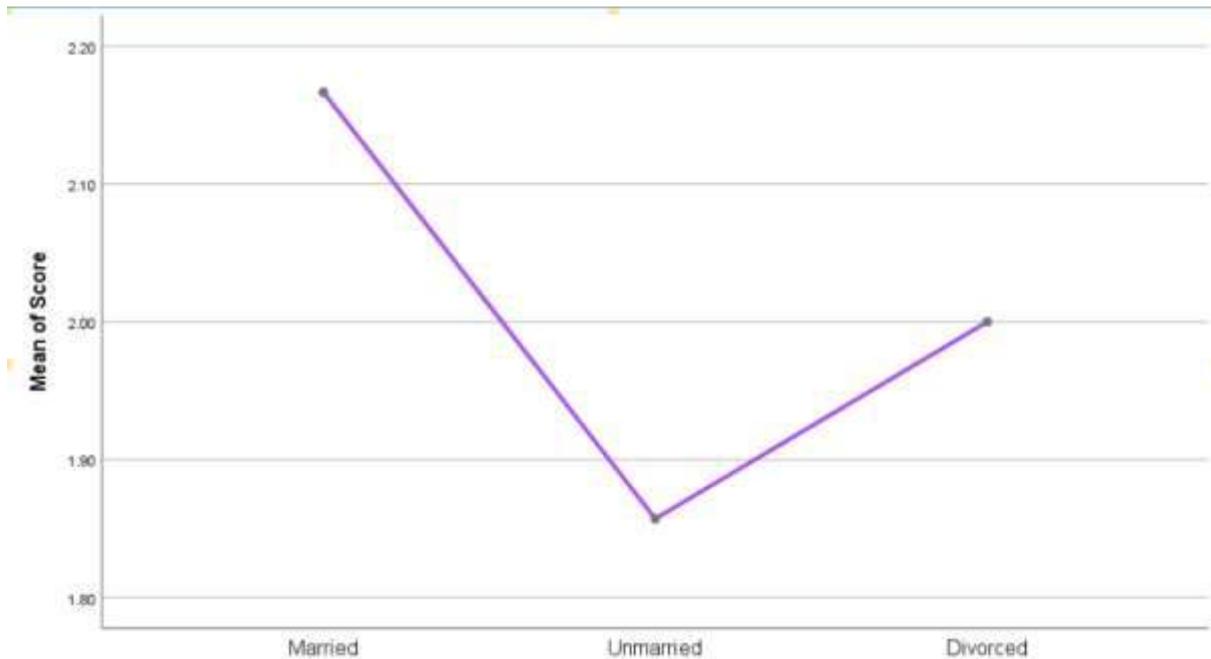


Figure 2: Marital Status and social support

Figure 2 shows that vast majority of the married patients received better family support compared to the unmarried and divorced/separated.

To test the hypotheses there is no difference in the mean value of perceived social support.

One sample t-test was done to determine whether the mean calculated from sample data collected from a single group is different from a designated value.

Table 4: Perceives social support

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Sig Other	28.705	44	.000	17.66667	16.4263	18.9070
Family	29.644	44	.000	17.75556	16.5484	18.9627
Friends	28.095	44	.000	17.11111	15.8837	18.3386

Table 4 shows difference in the mean values if significant others (X=28.70), perceived family support (X=29.64) and perceived support from friends (X=28.09). Thus we reject the null hypothesis and conclude that there is a significant difference in the mean in the three areas.

WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. The WHO QOL scale used here has 4 domains – health, psychology, social relations and environmental factors.

Table 5: WHO QOL mean score

	Health	Psychology	Social Rel.	Environment
Mean	21.8667	18.7111	9.2667	25.9111
Std. Deviation	3.37504	2.93585	1.92354	4.28434

Domain 1 includes activities of daily living, sleep and health (X=21.86, SD=3.3)

Domain 2 includes self-image and self-esteem (X=18.71, SD=2.9)

Domain 3 includes personal relationships and social support (X=9.2, SD=1.92)

Domain 4 which is Environment includes home environment and financial resources (X=25.91, SD=4.28)

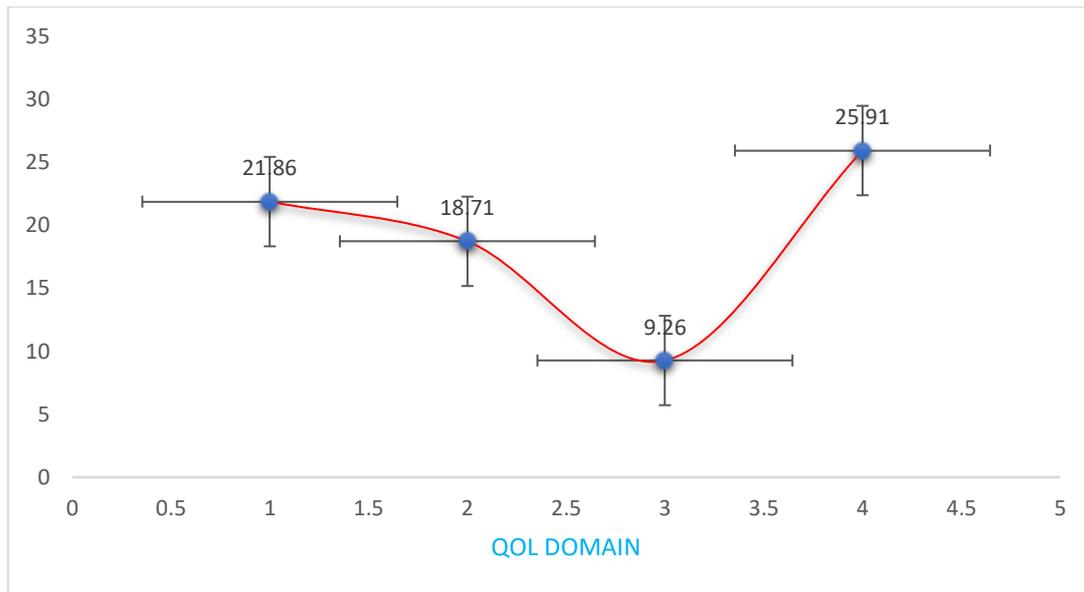


Figure 3: Graphic representation of the four domains.

Table 5 shows the highest and the lowest mean scores of WHOQOL-BREF domains was found for environment domain (Mean = 25.91) and social relationship (Mean = 9.26) respectively.

Figure 3 represents the four domains of quality of life. Higher score indicates higher quality of life in the respective domains. To test the null hypotheses there is no difference in the mean value in the domains of the quality of life.

Table 6: Quality of Life domains.
Test Value = 0

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Health	43.462	44	.000	87.46667	83.4108	91.5226
Psychology	42.754	44	.000	74.84444	71.3163	78.3725
Social Rel.	32.317	44	.000	37.06667	34.7551	39.3782
Env.	32.317	44	.000	148.26667	139.0203	157.5130

As seen in Table 6, a significant mean difference were observed of the domains in quality of life in relation to health (X=87.46), Psychology (X=74.84), Social relations (X=37.06) and Environment (X=148.26). Hence, we reject the null hypothesis.

To test the hypotheses, there is no correlation between perceived social support and quality of life.

Table 7: Correlation between perceived social support and quality of life

	Health	Psychology	Social Rel.	Environment
PSS (r)	0.355	0.348	0.509	0.657
P value	0.017	0.019	0.000	0.000

Table 7 shows the correlation between perceived social support and quality of life in each of the domains. It was found that there were significant correlations between perceived social support and health (r=0.35, p<0.05), Psychology (r=0.34, p<0.05), Social relations (r=0.50, p<0.05) and environmental factors (r=0.65, p<0.05). Thus, we reject the null hypothesis and conclude that higher the perceived social support higher is the quality of life among patients with schizophrenia.

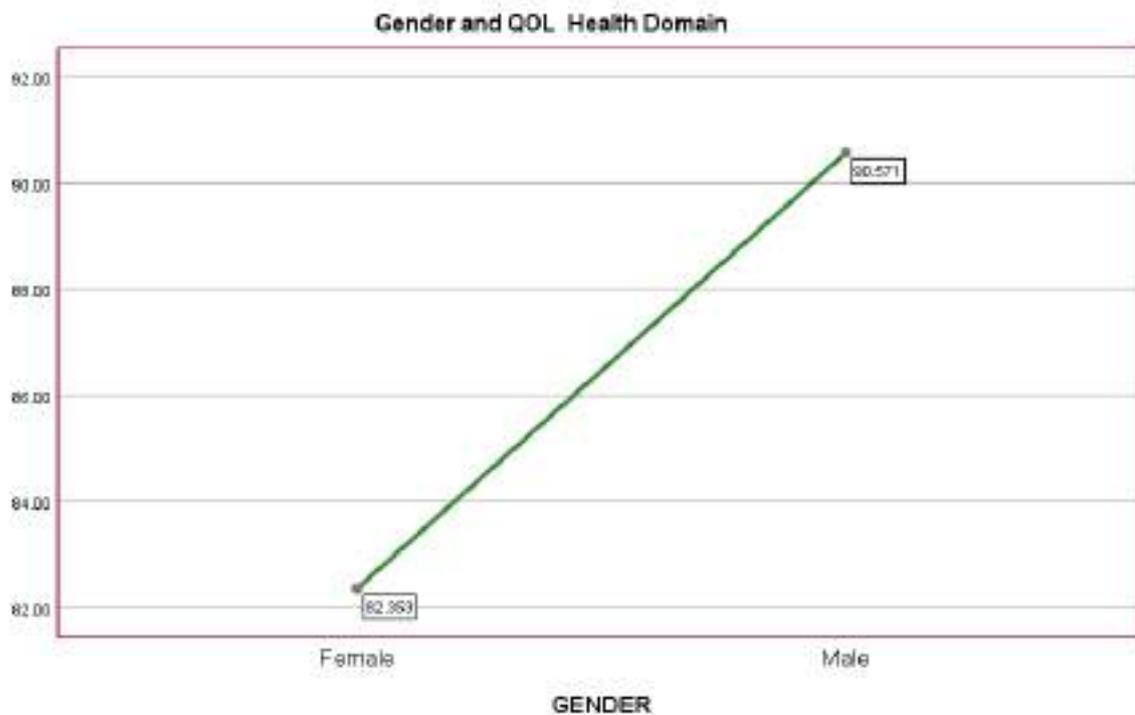
The final hypothesis in this study states that gender differences has no influence on quality of life domains. Results of one-way ANOVA is shown in Table 8.

Table 8: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Health	Between Groups	714.461	1	714.461	4.206	.046
	Within Groups	7304.739	43	169.878		
	Total	8019.200	44			
Psy	Between Groups	39.172	1	39.172	.279	.600
	Within Groups	6028.739	43	140.203		
	Total	6067.911	44			
Social Rel	Between Groups	9.708	1	9.708	.161	.690
	Within Groups	2595.092	43	60.351		
	Total	2604.800	44			
Envt	Between Groups	155.321	1	155.321	.161	.690
	Within Groups	41521.479	43	965.616		
	Total	41676.800	44			

The results in Table 8, revealed a significant effect of health domain on gender, $F(1,43) = 4.206$, $p < 0.05$. Other domains were not significant.

Further analysis showed that male had better quality of life compared to female patients, particularly in the health domain. This is shown graphically in Figure 4.



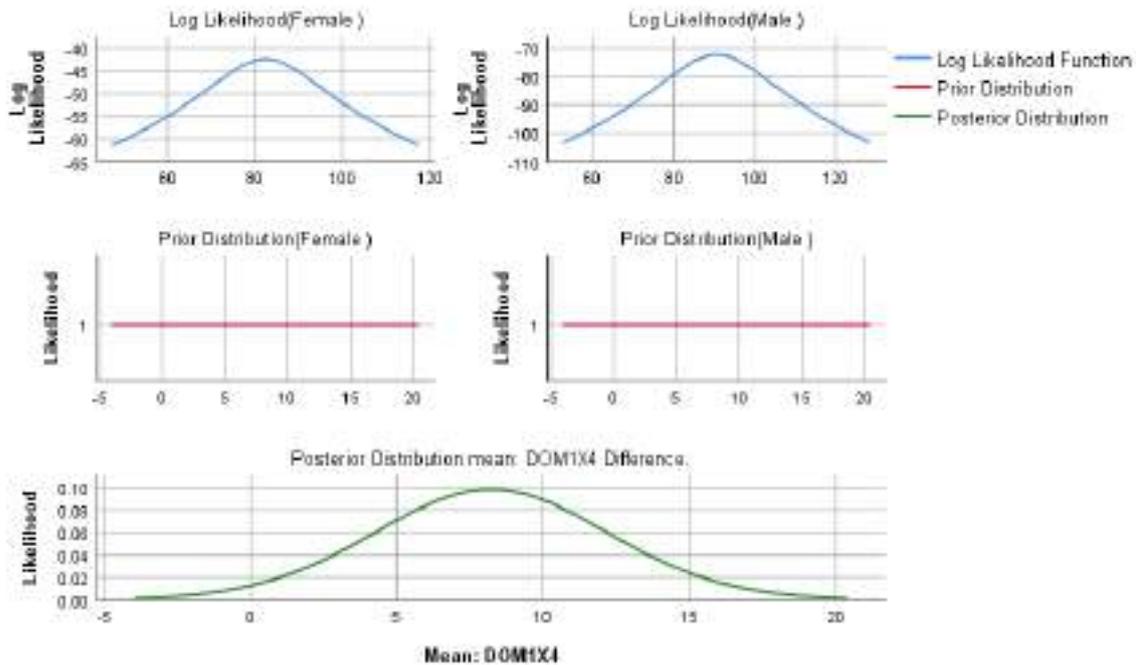


Figure 5: Bayesian interpretation of probability

Bayesian interpretation of probability confirms that male patients are more likely to have better quality of life compared to female patients. Thus, we reject the null hypotheses. Gender does influence quality of life among schizophrenic patients.

7. DISCUSSION

Patients suffering from schizophrenia have serious issues with personal and social relationships, which negatively impact their quality of life. Over the last two decades, psychosocial activities have been focused on improving the personal and social functioning of patients with schizophrenia, which includes more than just treating schizophrenic symptoms. Schizophrenia is a long-term mental illness that impairs emotions, cognition, and behavior. As a result, these people have poor psychosocial functioning and a low quality of life.

Vast majority of the patients (42%) were in the age group 31 to 40 years. 33% were in the age group 31 to 40 years. A small percentage (25%) of them were in the age group 18 to 30 years. The reason for this could be due to the late onset of schizophrenia seen in this sample.

People living with schizophrenia perceive low social support. In this study 9% of the patients overall perceived low support from significant others, family and friends. A vast majority of patients (71%) perceived moderate support and 20% perceived high support.

This study is similar to studies done by Munikanan, et al. (2017) which reported about 72% of the respondents had poor perceived social support, with support from significant others being the lowest, followed by friends and family (Munikanan, et al. (2017). [22]).

According to the findings of the study by A.S. Ebrahim et al. (2021), the majority of the participants (89.5%) had low to

moderate social support. Social support and social relationships showed a statistically significant positive correlation. (Ebrahim, A.S, et al. (2021). [28]).

It was intended to find perceived support using the Multidimensional Scale of Perceived Social Support Scale. The least one has scored was 2 and highest 7. Higher score indicates better perception of social support. The reliability of this scale in this case was found to be Alpha=0.918 which is excellent.

Low quality of life is linked to one or more of the following, according to a study by Cardoso, C. S., et al. (2005) male gender, single marital status, low income plus low education, use of three or more prescribed psychoactive drugs, psychomotor agitation during the interview, and current follow-up care. Given that being single has been linked to poorer quality of life in the intrapsychic and interpersonal domains, it is possible that affective-sexual relationships are unstable in this patient population (Cardoso, C. S., et al. (2005). [29]).

The vast majority of the married patients received better family support compared to the unmarried and divorced/separated. To test this hypothesis there is no difference in the mean value of perceived social support. One sample t-test was done to determine whether the mean calculated from sample data collected from a single group is different from a designated value. The difference in the mean values if significant others ($X=28.70$), perceived family support ($X=29.64$) and perceived support from friends ($X=28.09$). Thus, we reject the null hypothesis and conclude that there is a significant difference in the mean in the three areas.

WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals,



expectations, standards and concerns. The WHO QOL scale used here has 4 domains – health, psychology, social relations and environmental factors. According to the study conducted by Katschnig, H. (2000) Subjectively assessed quality of life was found to be higher in the less educated and in female patients, and when a sense of control is experienced. If negative or extrapyramidal symptoms are experienced and stigmatization is perceived, subjective quality of life is reported as being poorer (Katschnig, H et al. (2000). [30]).

Results shows the highest and the lowest mean scores of WHOQOL-BREF domains was found for environment domain (Mean = 25.91) and social relationship (Mean = 9.26) respectively. To test the null hypotheses there is no difference in the mean value in the domains of the quality of life. A significant mean difference were observed of the domains in quality of life in relation to health ($X=87.46$), Psychology ($X=74.84$), Social relations ($X=37.06$) and Environment ($X=148.26$). Hence, we reject the null hypothesis.

To test the hypotheses, there is no correlation between perceived social support and quality of life. Results depicted the correlation between perceived social support and quality of life in each of the domains. It was found that there were significant correlations between perceived social support and health ($r=0.35$, $p<0.05$), Psychology ($r=0.34$, $p<0.05$), Social relations ($r=0.50$, $p<0.05$) and environmental factors ($r=0.65$, $p<0.05$). Thus, we reject the null hypothesis and conclude that higher the perceived social support higher is the quality of life among patients with schizophrenia.

The final hypothesis in this study states that gender differences has no influence on quality of life domains. Results of one-way ANOVA revealed a significant effect of health domain on gender, $F(1,43) = 4.206$, $p < 0.05$. Other domains were not significant. Further analysis showed that male had better quality of life compared to female patients, particularly in the health domain.

8. LIMITATIONS OF THE STUDY

There are a few limitations to the study at hand that must be considered. Because the study is cross-sectional, it can only provide a snapshot of the data at a single point in time. Furthermore, because the study only includes a small number of participants, the results may be less representative. Using non-probability sampling techniques risks skewing the sample's selection. When all of these factors are considered at once, it is difficult to draw generalizations that apply to a larger population.

9. FUTURE IMPLICATIONS

More studies need to be conducted in the area of quality of life and perceived social support.

While this study contributed significantly to our understanding of the relationship between quality of life and perceived support in schizophrenia patients. Future research options can enhance and deepen our knowledge in this field. The current study found that people with schizophrenia who were already receiving community-oriented services lacked social support, particularly from significant others, friends, and family. Furthermore, the

presence of social support from family and friends contributes to a higher quality of life, which is an important indicator of recovery. As a result, improving social support should be prioritized in future service development for people with schizophrenia. These studies emphasize the importance of looking beyond symptom-reduction strategies to improve QoL in schizophrenia; additionally, they highlight how increased participation of families and communities in treatment significantly improves the quality of life of people with mental illnesses.

10. CONCLUSION

According to the current study's findings, the majority of schizophrenia patients have low social support and QOL. There is also a link between social support and QOL. As a result, social support should be an essential component of psychiatric treatment due to its importance in improving patients' QOL. Age, educational level, and employment status were also discovered to influence the level of social support.

Furthermore, employment, marital status, and the occurrence of relapse can all be linked to people with schizophrenia's quality of life. These findings can assist policymakers in improving the role of families in the treatment of mental health patients at both the family and community levels. Additional considerations in the planning of mental health programs are required in order to raise awareness and empower communities in the management of people with schizophrenia through mental health integrated service clinics.

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PHARMACOVIGILANCE IN AYURVEDA

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ABSTRACT

The field of pharmacovigilance in Ayurveda is at a pivotal juncture, balancing the ancient principles of holistic healing with the demands of modern safety surveillance. This abstract provides a comprehensive overview of the present status and future trajectories of pharmacovigilance in Ayurveda, shedding light on the challenges faced and the innovations required for enhanced patient safety. Presently, Ayurvedic pharmacovigilance involves a dynamic interplay between traditional wisdom and contemporary methodologies. The abstract delves into the current practices, emphasizing the integration of Ayurvedic principles into the framework of adverse event reporting and monitoring. Looking ahead, it envisions the future of Ayurvedic pharmacovigilance with a focus on technological advancements and interdisciplinary collaboration. In conclusion, we tried to provide a panoramic view of the evolving landscape of pharmacovigilance in Ayurveda, weaving together the threads of tradition and innovation to safeguard patient well-being in the present and the future.

KEYWORDS – Pharmacovigilance, Ayurveda, Ayurvedic Drugs,

INTRODUCTION

Pharmacovigilance is the scientific discipline focused on minimizing the potential harm from drug-related risks to patients. This involves the establishment of a reporting mechanism for adverse events linked to drug usage. Ayurveda, an ancient body of knowledge encapsulated in graceful Sanskrit verses within the samhitas, details the diagnosis, treatment of diseases, and strategies for maintaining overall well-being. While the term "Pharmacovigilance" is absent from Ayurvedic texts, the ethos of vigilant drug monitoring resonates strongly and is consistently underscored in major Ayurvedic scriptures. The primary objectives of pharmacovigilance, focusing on enhancing patient care, ensuring drug safety, and promoting rational drug use, are recurring themes within Ayurvedic pharmacology (dravyaguna vigyan) and therapeutics (chikitsa). The popularity of Ayurvedic medicines is on the rise, not only in India but also gaining acceptance in other nations. This growing usage has given rise to concerns regarding the safety of Ayurvedic medications.

Through this essay, we will explore Ayurvedic perspectives on adverse reactions to medicines, emphasizing the imperative need for pharmacovigilance in Ayurvedic practices. It delves into the challenges associated with introducing pharmacovigilance in Ayurveda, considering the need for adaptation of traditional concepts to meet modern standards. The discourse also presents recommendations for the successful implementation of pharmacovigilance activities, emphasizing collaboration between traditional and modern healthcare practitioners, public awareness initiatives, and the establishment of standardized reporting protocols. In essence, as Ayurvedic medicines gain global prominence, the

incorporation of vigilant monitoring practices is crucial to address safety concerns effectively within the Ayurvedic healthcare system.

What is Pharmacovigilance?

Pharmacovigilance is defined as the **detection, assessment and prevention** of adverse drug reactions in humans.¹

Pharmacovigilance is the process of-

- Monitoring medicines as used in everyday practice to identify previously unrecognized adverse effects or changes in the pattern of their adverse effects.
- Assessing the risks and benefits of medicines in order to determine what action, if any, necessary to improve their safe use.
- Providing the information to users to optimise safe and effective use of ASU medicines
- Monitoring the impact of any action taken.

National Pharmacovigilance Programme for Ayurvedic Drugs²

The global movement towards enhancing patient safety has gained momentum, underscoring the increasing significance of drug safety in today's context. Within the context of Ayurveda, Siddha, and Unani (ASU), the heightened usage of drugs from these systems has amplified the risk of adulteration, counterfeit drug production, and the formulation of products that lack a conceptual basis in the ASU system. Additionally, there is a growing trend of cultivating medicinal plants based on laboratory-generated species, relying on chemical composition, and intended for regular commercial use. These shifts pose potential profound impacts on the safety and efficacy of ASU drugs in the market. Consequently, there is a need for a robust



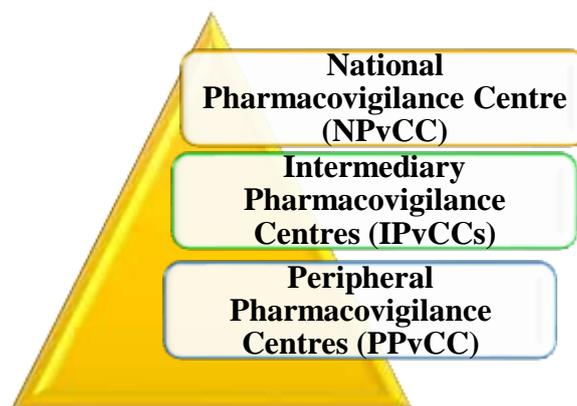
mechanism to address these challenges, leading to the establishment of a pharmacovigilance framework for ASU drugs in India. Despite having their own principles and pharmacopoeia, ASU medicines are often practiced in the country as over-the-counter drugs without the requirement of an authentic prescription.

In India, the National Pharmacovigilance Programme, overseen by the Central Drug Standard Control Organization (CDSCO), has been operational since 2003. Recognizing the importance of incorporating traditional medicine into the pharmacovigilance system, the World Health Organization (WHO) issued guidelines on the safety monitoring of herbal medicine in 2004. Acknowledging the significance of pharmacovigilance, the Institute for Post Graduate Teaching and Research in Ayurveda (IPGT & RA) in Jamnagar conducted a two-day workshop on December 3 & 4, 2007, titled 'Pharmacovigilance for Ayurvedic Drugs.' This workshop, funded by the WHO country office for India in New Delhi, led to the establishment of a Pharmacovigilance Cell (PV cell). Following workshop recommendations, a reporting form for suspected adverse reactions of Ayurvedic formulations was developed, distributed to faculty members, research scholars, and physicians, with notifications sent to the Department of AYUSH, Ministry of Health & Family Welfare, Government of India.

The coordination of the National Pharmacovigilance Programme for Ayurveda, Siddha, and Unani (ASU) drugs is facilitated by the National Pharmacovigilance Resource Centre (NPRC) for ASU drugs. This center aims to establish and manage a comprehensive database of adverse drug reactions (ADR) to inform consistent regulatory decisions concerning drug marketing authorization in India, ultimately ensuring drug safety. The inaugural national consultative meeting for the National Pharmacovigilance Programme for ASU drugs took place on August 29 & 30, 2008, in New Delhi, organized by the Department of Ayush, MOHFW. Sponsored by WHO, this meeting involved the technical review and finalization of the draft protocol. The National Pharmacovigilance Programme for ASU drugs also published a glossary of terms, including adverse events, side effects, adverse reactions, serious adverse reactions, and unexpected adverse reactions.

Central Sector Scheme of Pharmacovigilance of ASU&H Drugs³ - The Ministry of AYUSH has launched a new Central Sector initiative aimed at promoting pharmacovigilance for Ayurveda, Siddha, Unani, and Homoeopathy (ASU&H) drugs. The primary goal of the scheme is to foster a culture of recording adverse effects, conducting safety monitoring for Ayurveda, Siddha, Unani, and Homoeopathy drugs, and overseeing misleading advertisements in both print and electronic media.

This initiative envisions the establishment of a three-tier network comprising the National Pharmacovigilance Centre (NPVCC), Intermediary Pharmacovigilance Centres (IPVCCs), and Peripheral Pharmacovigilance Centres (PPVCC).



In the initial phase of implementation, five National Institutes of AYUSH have been assigned roles as Intermediary Pharmacovigilance Centres, and forty-two AYUSH institutions equipped with clinical facilities are designated as Peripheral Pharmacovigilance Centres across India. The plan is to expand this network, aiming to establish over 100 peripheral pharmacovigilance centres in the coming years. The initiative involves collaboration with representatives from the Central Drug Standards Control Organisation, serving as the national drug regulatory authority, and the Indian Pharmacopoeia Commission, which acts as the WHO Collaborating Centre for Pharmacovigilance in the country, providing mentorship and guidance.

It's important to recognize that pharmacovigilance goes beyond spontaneous reporting, and the assessment of medicines extends beyond pharmacovigilance. This field encompasses the identification and reporting of adverse drug reactions (ADRs), constituting a broader framework for the comprehensive evaluation of medicines.

The World Health Organization (WHO) defines Adverse Drug Reaction (ADR) as an unintended, noxious response to a drug occurring at doses typically used for prophylaxis, diagnosis, therapy, or modification of physiological functions. Pharmacovigilance, also defined by the WHO, is characterized as a scientific discipline involving activities related to the detection, assessment, understanding, and prevention of adverse effects or other drug-related issues.

A prevailing misconception surrounding herbal medicines is the belief in their complete safety, leading individuals to self-medicate without a physician's prescription. This widespread practice has resulted in unfavourable outcomes, side effects, or undesired aftereffects. Consequently, AYUSH practitioners and consumers must now prioritize vigilance in monitoring drug safety for the benefit of public health.

The pharmacovigilance initiative aims to identify potentially unsafe ASU&H medicines and misleading advertisements, enabling regulatory measures to be taken against them. The scheme received approval from the Standing Finance Committee (SFC), chaired by the Secretary (AYUSH), on November 1, 2017, and it was subsequently implemented nationwide towards the conclusion of the financial year 2017-18.



Aims & Objectives

- The pharmacovigilance program aims to bridge the divide between the potential and the actual outcomes of Ayurvedic drugs.
- The programme aims to keep the data of adverse drug reactions of herbal, mineral and metallic products.
- To engage health care professionals and the public at large, in a well structured programme to build synergies for monitoring adverse drug reactions of ASU medicines.
- To collect and collate data, analyse it and use the interferences to recommend informed regulatory interventions besides communicating risk to health care professionals and public.

The objectives of the national pharmacovigilance program for ASU (Ayurveda, Siddha, and Unani) drugs can be categorized into three timelines:

1. Short term objectives involve cultivating a culture of notification.
2. Medium-term objectives aim to engage healthcare professionals and professional associations in the monitoring of drugs and the dissemination of information.
3. Long-term objectives aspire to attain operational efficiencies that position the national pharmacovigilance program for Ayurvedic drugs as a global benchmark for drug monitoring efforts.

Frame work for Pharmacovigilance for Ayurvedic Drugs

The responsibility of coordinating a nationwide pharmacovigilance program for ASU drugs falls under the purview of the National Pharmacovigilance Resource Centre, overseen by the Department of AYUSH, Ministry of Health and Family Welfare, Government of India. This program is centrally managed at the Institute for Post Graduate Teaching & Research in Ayurveda (IPGT & RA) in Jamnagar, Gujarat, India. Under the guidance of the National Pharmacovigilance Technical Advisory Committee (NPTAC), the national pharmacovigilance program for ASU drugs is directed to recommend regulatory interventions by establishing procedures and guidelines.

The programme would comprise of the following steps-

- (1) Step 1- Identifying the various centres across the country for recording ADR related data.
- (2) Step 2- An induction training programme shall be arranged for healthcare professionals participating in the NPP for ASU drugs.

Intensive interactions/training sessions will be organized for all participants to

- Define individual and team roles and responsibilities clearly.
 - Establish operational benchmarks.
 - Develop Standard Operating Procedures (SOPs) for the capture, generation, and forwarding of Adverse Drug Reaction (ADR) data.
- i. Acquire effective communication skills to extract information related to Adverse Drug Reactions (ADRs).
 - ii. Receive hands-on training for the accurate recording of ADR information.
 - iii. Attain skills for meticulous collation and ensuring data completeness.

- iv. Promote a culture of notification through effective communication.

As per the provision of this programme any healthcare professional may report the suspected adverse drug event, but not from the layman or other person than the health care professional. The reporting should be submitted in the prescribed format to the pharmacovigilance centre. Confidentiality is assured through this programme.

What to Report

- (i) All adverse reactions suspected to have been caused by Ayurvedic drugs alone or along with any other drugs.
- (ii) All suspected drug interactions.
- (iii) Reactions to any other drugs which are suspected of significantly affecting a patient's management, including reactions suspected of causing:
 - Hospitalization (initial or prolonged)
 - Death
 - Required intervention to prevent permanent damage
 - Life threatening (real risk of dying)
 - Disability (Significant, persistent or permanent)
 - Congenital anomaly

Ayurvedic View on ADR

A prevalent misconception suggests that Ayurvedic medicines are immune to adverse reactions. However, the classic Ayurvedic text, the Charaka Samhita, refutes this notion by meticulously detailing potential adverse reactions resulting from improper preparation or usage of medicines. The text emphasizes various factors, including the physical characteristics of the plant part (prakriti), its properties (guna), actions (karma; prabhava), habitat (desh), growth season (ritu), harvesting conditions (grahitam), storage method (nihitam), and pharmaceutical processing (upaskritam). These factors must be considered during the selection of starting materials for medicine.

Similarly, Maharishi Charaka elegantly outlines several patient-related considerations aimed at minimizing adverse reactions. These factors include the patient's constitution (prakriti), age (vayam), current health status (vikriti), tolerance based on previous exposure (satmya), psychological state (satwa), digestive capacity (ahara-shakti), exercise capacity (vyayama shakti), tissue quality (Sara), physical proportions of the body (sahanan), and strength (bala).⁴

Notably, classical Ayurveda recommends the use of metals and minerals as medicines, either as bhasmas (incinerated mineral formulations) or in combination with plants as herbo-mineral formulations (e.g., Chanderprabha Vati or Ekangveer Rasa). Strict manufacturing procedures are prescribed for these medicines, and the text describes adverse reactions that may occur when precautions are neglected during their production and administration. Despite their widespread use in India, concerns about the long-term safety of these medicines arise due to the presence of heavy metals⁵, leading to reported instances of adverse reactions.

“ यथा विषं यथा शस्त्रं यथाऽग्निरश्निर्यथा |

तथैषधमविज्ञातं विज्ञातममृतं यथा ||१२४||” Ch.Sa. Sutra Sthana 1st Chapter



Use of a drug which is equivalent to “Amruta” that is not understood perfectly may work as poison, weapon, fire or a "bolt of thunder"

“योगादपि विषं तीक्ष्णमुत्तमं भेषजं भवेत्|

भेषजं चापि दुर्युक्तं तीक्ष्णं सम्पद्यते विषम्||१२६||” Ch.Sa. Sutra Sthana 1st

Chapter

Maharishi Charaka underscores the importance of proper administration, stating that even a potent poison can become an excellent medicine when handled correctly, while even the most beneficial drug can act as a poison if mishandled.⁶

Need of Pharmacovigilance for Ayurvedic Medicines

In ancient times, Ayurvedic physicians personally prepared medicines for their patients, but in contemporary times, this practice has changed, giving rise to a formalized industry for the production and sale of Ayurvedic drugs. The manufacturing and marketing of these drugs fall under the regulatory purview of the Drugs and Cosmetics Act of 1940. Ayurvedic medicines available in the market can be broadly categorized into classical formulations adhering to Ayurvedic samhitas descriptions (e.g., Kukkutanda twak Bhasma, Rasnadi Guggalu, Dashamoolarishta etc.) and patented or proprietary formulations made from herb extracts.

As per the research report on Ayush Sector by Forum on Indian Traditional Medicine (FITM) under Research and Information System for Developing Countries (RIS), the market size of Ayush industry is US\$ 18.1 billion (INR 1,49,451 Crore as per current INR-Dollar rate)⁷, constituting nearly a third of India's total pharmaceutical business, commercialization has brought forth challenges regarding the safe use of Ayurvedic medicines. This underscores the necessity for formalized pharmacovigilance programs in the field.

The number of reported adverse reactions to Ayurvedic drugs in the National Pharmacovigilance Program in India remains minimal. This can be attributed largely to the prevailing belief in the safety of Ayurvedic medicines. Additionally, the lack of awareness among Ayurvedic practitioners about the concept and significance of pharmacovigilance further contributes to this situation.

PRESENT CHALLENGE

Numerous obstacles hinder the recognition and reporting of adverse reactions to Ayurvedic drugs, encompassing issues in the detection, assessment, and prevention of such reactions.



1. Detection

The robust conviction among both doctors and prescribers that Ayurvedic drugs are inherently safe poses a significant challenge in detecting adverse reactions to these medicines. The path from obtaining an accurate medical history to diagnosis and pinpointing the causative medicine is laden with obstacles, including:

- The absence of coverage on concepts and terminologies related to adverse reaction monitoring in the Ayurvedic curriculum hampers the precise identification of adverse reactions.
- Inadequate evolution of methods for studying drug safety problems within Ayurveda poses a further challenge.
- Although information about medicines exists in ancient Ayurvedic treatises, accessing this information is not straightforward.
- Signal detection proves challenging due to the ingrained belief in the safety of Ayurvedic medications, resulting in underreporting and a lack of data collection on any formulation.
- Patients often simultaneously use medicines from various medical systems, complicating the assignment of causality.
- The absence of quality assurance and control in the manufacturing of Ayurvedic medicine adds a complicating factor to diagnosing adverse reactions.

2. Assessment

Assessing causality for Ayurvedic medicines poses a formidable challenge, primarily due to several reasons:

- Information on adverse effects is dispersed in Ayurvedic literature and lacks electronic accessibility, complicating the retrieval process. Many publications are not peer-reviewed, and their quality is questionable.
- The majority of Ayurvedic formulations are complex, multi-ingredient fixed-dose combinations seldom prescribed in isolation. Patients often concurrently consume multiple herbal and herbo-mineral formulations.
- The presence of a confounding factor arises from patients simultaneously taking allopathic medicines.
- Pharmacokinetics and toxicokinetic are exceptionally challenging, currently approaching near impossibility, making definitive causality determination extremely difficult.
- Dose-related responses are infrequently measured and reported.
- De-challenge and re-challenge procedures are rarely, if ever, performed, and there is a lack of objective evidence supporting the adverse event.
- A significant challenge lies in the scarcity of expertise in conducting causality analysis for Ayurvedic medicines. Individuals trained in pharmacovigilance often lack understanding of Ayurveda, while experts in Ayurveda may lack training in the science of pharmacovigilance.

3. Prevention

The effectiveness of any pharmacovigilance system lies in its capacity to successfully prevent further adverse reactions



through the comprehension and utilization of collected information. However, in the case of Ayurvedic medicines, challenges arise at various levels:

- The availability of Ayurvedic medicines is unparalleled in India, with numerous books describing different formulations and containing over 100,000 formulations. The vast informal sector adds complexity to determining which medicines should be included in the pharmacovigilance system.
- Inadequate communication exists between practitioners of conventional Western medicine and traditional Indian medicine.
- In India, the current National Pharmacovigilance Program (NPVP) does not encompass Ayurveda, leading to a lack of awareness among Ayurvedic practitioners about the necessity and procedures for reporting adverse reactions.
- Access to unbiased drug information about Ayurvedic drugs, encompassing both classical and proprietary formulations, is not readily available.
- Patients lack sufficient awareness that Ayurvedic medicines can cause adverse reactions, and they may use these medicines for extended periods without monitoring, assuming their inherent safety. Consequently, patients may not disclose their use of these medicines in their medical history.
- Education in Ayurveda or modern medicine, at both undergraduate and postgraduate levels, neglects the topic of pharmacovigilance for Ayurvedic medicines, leaving young physicians uninformed about this crucial concept.
- The Ayurvedic pharmaceutical industry lacks motivation to prioritize pharmacovigilance for Ayurvedic medicines, resulting in a lack of efforts to generate safety data, both before and after the marketing of formulations.

Solutions to Further Strengthen Pharmacovigilance In Ayurveda

- Incorporate pharmacovigilance principles into the curriculum of Ayurveda at both the undergraduate and postgraduate levels.
- Promote research initiatives focusing on drug safety within the Ayurvedic domain.
- Mandate the reporting of adverse reactions to regulatory authorities for Ayurvedic formulations.
- Facilitate the availability of unbiased and easily accessible drug information, exemplified by initiatives like the Traditional Knowledge Digital Library⁸ launched by the Government of India, showcasing how ancient knowledge can be digitally accessible.
- Raise awareness about the science of pharmacovigilance among Ayurvedic physicians, patients, and paramedical staff.
- Develop and validate scales for assessing the causality of reported reactions to Ayurvedic medicines.
- Encouraging the direct participation of Ayurvedic academic institutions in programs like the National

Pharmacovigilance Program (NPVP) after suitable training represents an initial step in this direction.

- Training programmes and interaction meetings shall be held every 6 months after the initial training besides continuous communication through emails, carrying relevant information related to ADR monitoring methods to be maintained among the participating centres.
- A collaborative effort between experts in pharmacovigilance and Ayurveda ensures the effective implementation of this system.
- Enhancing pharmacovigilance in Ayurveda requires a multifaceted approach. Here are potential solutions to strengthen pharmacovigilance in Ayurveda:
- Promote communication and collaboration between practitioners of Ayurveda and Western medicine.
- Engage in international collaborations for sharing pharmacovigilance insights and best practices.
- Align Ayurvedic pharmacovigilance standards with global standards.
- Integration of Technology - Develop a dedicated mobile application for reporting adverse reactions to Ayurvedic medicines. This can streamline the reporting process and make it more accessible to both healthcare professionals and patients.
- Establish community-based pharmacovigilance programs that involve local communities in monitoring and reporting adverse reactions. This could enhance awareness at the grassroots level.
- Implement a crowdsourced monitoring system where individuals can voluntarily contribute their experiences with Ayurvedic medicines. This can provide real-time data and valuable insights.
- Create a centralized research hub specifically dedicated to pharmacovigilance in Ayurveda. This hub can serve as a repository for research findings, analysis, and advancements in the field.
- Launch initiatives to empower patients with information about the medicines they are taking. This can include patient education programs, informational pamphlets, and online resources.
- Organize workshops that bring together experts from Ayurveda, modern medicine, and pharmacovigilance. These workshops can facilitate cross-disciplinary discussions and foster collaboration.
- Involve traditional healers and practitioners from local communities in pharmacovigilance efforts. Their insights and experiences can contribute to a more comprehensive understanding of adverse reactions.
- Utilize social media platforms for pharmacovigilance monitoring. Create dedicated groups or pages where individuals can share their experiences and report any adverse reactions.
- Develop a safety rating system for Ayurvedic medicines, similar to the way pharmaceuticals are rated. This can guide both practitioners and patients in making informed choices.
- Introduce gamification elements in the reporting process to encourage more active participation.



Individuals could earn rewards or recognition for contributing to pharmacovigilance.

- Launch national and regional campaigns specifically focused on Ayurveda safety. These campaigns can include TV and radio advertisements, as well as collaborations with influencers in the health and wellness space.
- Establish collaborations with other countries practicing traditional medicine systems to share best practices and collectively work towards global pharmacovigilance standards.
- These innovative ideas aim to leverage technology, community engagement, and collaborative efforts to enhance the effectiveness of pharmacovigilance in Ayurveda.

By implementing these solutions, there is a potential to create a robust pharmacovigilance framework for Ayurveda, ensuring the safety and well-being of individuals who use traditional medicines.

CONCLUSION

The present state of pharmacovigilance in Ayurveda reflects a crucial need for heightened awareness, integration of reporting mechanisms, and systematic monitoring of adverse reactions associated with traditional medicines. The challenges, such as the lack of communication between different medical systems, insufficient education on pharmacovigilance, and the belief in the inherent safety of Ayurvedic medicines, underscore the urgency for comprehensive reforms. The incorporation of pharmacovigilance concepts into Ayurvedic education, encouraging research on drug safety, and making reporting

mandatory are vital steps. The dissemination of unbiased drug information, coupled with the development of standardized scales for causality assessment, will contribute to a more robust and transparent pharmacovigilance framework. Human resource development, involving the training of Ayurvedic experts, and fostering collaboration between pharmacovigilance professionals and Ayurvedic practitioners, are pivotal for the success of these endeavours. As we navigate the future of pharmacovigilance in Ayurveda, the collective efforts of stakeholders can pave the way for a safer and more accountable healthcare landscape, ensuring the well-being of patients and fostering confidence in the use of Ayurvedic medicines.

Moreover, pharmacovigilance contributes to the overall credibility and trust in Ayurvedic medicine across globe for its globalisation. By proactively identifying and mitigating potential risks, the program helps to enhance the reputation of Ayurveda as a reliable and safe healthcare option. Looking to the future, the pharmacovigilance program holds the promise of continual improvement and refinement of Ayurvedic practices. It encourages a culture of responsible use, informed decision-making, and ongoing learning within the Ayurvedic community. As the program evolves, it is expected to contribute not only to the safety of Ayurvedic drugs but also to the advancement and modernization of Ayurveda as a whole, ensuring that it remains relevant, effective, and in harmony with contemporary healthcare standards.

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ISSUES AND CHALLENGES OF TEA PLANTATION IN NORTH BENGAL

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ABSTRACT

West Bengal is the second largest producer of Tea in India. Tea productions are mostly concentrated in the northern part of the Bengal. North Bengal has about 450 tea gardens, mostly spread out in the Darjeeling Hills, Terai, and Dooars region. Today apart from Darjeeling tea gardens even tea gardens from Dooars contributes significantly to the country's total tea Production. However over the years, tea gardens of West Bengal have undergone a severe crisis in due to globalisation and intense competition from the other competitive tea markets of Sri Lanka, Kenya and China. It has underwent stiff fall in prices during early 2000's which had severe impact on the tea plantation states all over India and the tea estates of North Bengal is no different, resulting into frequent shutdown of the tea gardens hitting worst on the lowest section of the tea garden employees who works as a daily wage tea garden labour. The study aims to identify on going major issues and challenges of the Tea Industry of North Bengal and also study the consequences of the tea garden crisis on tea garden workers livelihood.

KEYWORDS: *Dooars, Tea garden labour, Globalisation Tea Crisis.*

INTRODUCTION OF TEA INDUSTRY IN INDIA

Tea has its origin from China as the term tea has been derived from the Chinese dialects t'e , chia or cha. Tea is an essential morning beverage in several parts of the world. Tea cultivation began in India during the British colonial Rule and still remains the largest producer of Tea in the World. The Economy of West Bengal depends on three T's viz. Tea, Timber and Tourism. The major tea growing regions in West Bengal are Darjeeling, Terai and Dooars. Darjeeling tea is renowned all over the world in terms of its quality. Next to Assam, West Bengal is the second largest tea growing state accounting to 22 per cent of total production of the country. Tea industry in West Bengal is about 146 years old. Tea cultivation was first started in Darjeeling hills. Darjeeling had its first tea garden in 1856 in the form of Alubari Tea Garden opened at Kurseong and Darjeeling Tea Company. By the end of 1874, there were no less than 113 gardens with 18888 acres under tea cultivation. The names of some gardens which came up during this time are Makaibari, Pandam, Ging, Ambote, Takdawn and Phubsering. All these gardens were situated in the hills but at the same time experiment for tea plantation in Terai region were also being carried on. In 1862 the first garden to come in Terai region was Champta tea garden situated near Khaprail by Mr. James White, many more gardens began to come up in the terai regions.

Location Profile of Dooars

The Himalayan foothill of North Bengal is known as Dooars or Duars with the great natural beauty and is rightly considered as the gateway of Bhutan, Sikkim and the entire North East of India. The word Dooars has no political implication but only geographical relevance. It can be divided into two parts namely Western Dooars which falls within the district of Jalpaiguri,

formed in 1869 after the annexation of Bhutan Dooars from Bhutia in 1864-1865 and the Eastern Dooars comprising the portion of Assam annexed earlier . The economy of Dooars includes three T's Tea Timber and Tourism. The main industry in this region is the Tea industry which was first planted by Britishers with the immigrant labourers from the Chotanagpur, Santhal Parganas and Nepal. Various tribal communities from these regions inhabited the most backward regions of this district and engaged in the tea plantation. The main tribal population engaged in the tea plantation industry comprises of Oraons, munda, Santhals, malapaharia, lohar, lodha along with other community like Nepali community are engaged in the Tea plantation industry. Because over four generations of people have made a living on such plantations, the tribal community make up the majority of the population in the Western Dooars.

Tea Industry in Dooars

The plantation sector plays a very significant role in country's wellbeing. Besides being an important source of revenue for various states/UTs, it is an important contributor to foreign reserves of the country and tea industry is one of them. India has a significant share in the international market with a 12 per cent share of world tea exports. Indian tea industry considered to be among the finest in the world. The main tea growing regions are in Northeast India and in North Bengal. India is the second largest tea producer in the world and world's largest consumer of tea, with about three-fourths of the country's total produce consumed locally which reached 220.84 million kg of tea. India is home to wide variety of teas including CTC tea, Orthodox tea, Green tea and Organic Tea. India has expanded its tea production in recent years, with 1344.40 million kg produced in 2021-22 which showed 61.37 million kg increase over 2020-21.



Table 1. World Tea Production 2020-2021

Country	2021(Million kgs)	2020 (Million kgs)	</>Over 2020
India	1343.06	1257.53	85.53
Sri Lanka	299.34	278.49	20.85
Kenya	537.83	569.54	-31.71
China	3063.15	2986.02	77.13
Others	1211.81	1177.37	34.44
Total World Production	6455.19	6268.95	186.24

Source: Tea Board of India 2021-22

In India tea is cultivated in 15 states of which Assam, West Bengal, Tamil Nadu and Kerala are the major tea growing states. They account for 98% of the total production. Other traditional states where tea is grown are Tripura, Himachal Pradesh, Uttarakhand, Bihar and Karnataka. The non-traditional states that have entered the tea map of India include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, and Sikkim. Within West Bengal apart from Darjeeling, tea garden from Dooars contributes significantly to the country's total tea Production. According to the Tea Board of India Reports tea production are 237.47 quantities per million kilograms in the current year 2022-23 which contributes to 17 per cent of the total tea production of the entire nation.

Table 2. Dooars Tea production from 2018 -2023

Dooars	Qty(in M.kgs)
2018-19	227.08
2019-20	240.25
2020-21	228.42
2021-22	235
2022-23	237.47

Source: Tea Board of India

But the biggest importer of Indian tea, the Soviet Union, collapsed, throwing the country's tea sector into a deep crisis. Nonetheless, domestic tea consumption has grown more quickly over the last ten years than tea production, which has remained consistent at a rate of about 15 to 20 million kg per year. Domestic demand has increased but the inability to enhance the production has resulted into drastic decline in the recent period and the same time decision of the government to allow cheaper tea imports from Bangladesh and Sri Lanka has only deepen the crisis(Bhowmik 2002).¹ However, since economic liberalization in the 1990s, the tea industry has faced numerous obstacles like poor yield, ageing bush, poor garden management, owner disputes; high debt oriented funding strategy and lack of overall development perspective. The pandemic of 2021 has made the tea industry's present state harsher. There are numerous perspectives on tea garden's issues and challenges. Following are some of the factors for illness, lockdowns, and closures:

¹ [Unfolding Crisis in Assam's Tea Plantations: Employment and Occupational ..By Deepak K. Mishra, Vandana Upadhyay, Atul Sarma].

Increasing Competition from International Market

Since inception tea has been internationally traded commodity. Due to the interplay of various global and local factors like overproduction, fluctuation in global tea prices, increasing competition with countries like Kenya, Vietnam, Sri Lanka and reinforced cartelization of tea companies both at the auction, centre and international market is leading to the restructuring of Indian tea industry. As a result the higher burden on the owner and the management, low productivity of workers, increasing social costs of production and fall in tea prices are some of the reasons given by the management for the overall tea crisis. This crisis have manifested through closure and abandonment of tea estates since the year 2000. Since 2004, 21,000 permanent workers were affected by the closure of 22 plantations in Dooars and Darjeeling (*harvesting hunger, 2014*)

In the recent years adulteration of Indian premium tea or fake teas from Nepal and Bangladesh has been another cause of concern because it has reduced the value of the premium tea from Darjeeling and Dooars region. Apart from it age old bushels, declining productivity and higher social cost highest cost of production and low productivity are the main reason for declining competitiveness in International Market.

Rising Production Cost

Costs of production for tea plantation industry mostly consist of cost of cultivation at grower's level and cost of processing at factory level. Cost of production of tea production varies from one region to another. In fact India has the highest cost of production as compared to the other tea producing countries. Another Cost of production which has always been controversial is Social Cost of Production. Tea plantation industry is labour intensive industry and in order to obtain best return in terms of tea production it is very important to keep the human resources employed. In this line as per Plantation Labour Act 1951(PLA ACT) planters have to bear this cost over and above the wage cost. This Social cost is an important parameter to influence the average price of tea annually. However profit out of the current price of tea fails to meet this cost putting high burden on the tea garden owner. As a result frequent lockdowns, unpaid dues make tea garden unattainable in the long run.



Failure of Price Realisation and Poor Performance of Tea Industry

The parliamentary standing Committee on Commerce in (2012) reported significant reasons for advancing tea crisis. India is the highest cost producer among all tea producing nations while price realisation has remained stagnant. Producing high-quality tea might be considered as a remedy to the industry's six-year price falls that occurred between 2000 and 2006; nevertheless, export prices have not significantly increased since the fiscal year 2013. Due to lack of export, planters have to rely on domestic market. Planters need to operate at low equilibrium however maintaining this equilibrium gets increasingly tough due to diminishing corporate interest in tea. Top marketers such as Tata or Unilever have either exited or cut exposure to the tea business substantially. Neither Fresh Investment nor Merger is rewarding. Smaller entities are most affected by limited access to resources. Planters say barely a fifth of the 195 gardens in the plains of West Bengal, suffering from low yields and high cost production are in profit. As of August 2014, nearly 30 per cent of the Assam gardens defaulted PF obligations attracting strong punitive action, which will clearly create problems in future. It is often believed that a tea garden once sick is rarely revived.² Unfolding crisis of Assam tea plantation points out that core of the poor performance of the tea industry lays the failure in raising productivity at an appreciable rate. Even though huge entry of the small size garden have radically changed the structure of tea industry however the solution lies in the old and medium size garden since they are trapped in low replanting, low yield and at the same time older and larger plantation have failed to invest sufficiently to plant new bushes. Indian estates have very low rates of replanting and

maintenance of tea bushes. This situation is worsening as both the labour absorption and bush replanting declined after 1997 (mishra et al 2012). In fact, Kerala and West Bengal had the oldest bushes and lowest productivity indicating that productivity is not necessarily related to labour at all (CEC 2003).

The production system of tea and poor labour wages

Another paradoxical condition leading to the price crisis in the tea industry lies in the structure of the tea industry itself. The production system of the tea consist of four actors namely retailers, auction broker, the estates / plantation with their management and the tea workers themselves. The mismatch between retail and producers price is the one of the reason of the crisis. The plantation price of tea has continued to be low despite the rising retail price of tea. As the global tea prices began to stabilize in 2008 it were global tea conglomerates and not tea producers or workers who emerged as the main beneficiaries and tea producer in India began to see cuts in their overall profits margins with less money making it back to the plantation and the workers. All these changes have profound implication for the labour that depends on the tea sector for their livelihood. Evidence derived from various studies on wages of the tea plantation does show the collected bargaining mechanism actually never improved the real purchasing power and hence livelihood of the workers. As compared to the other organised sector labour wages, wages of tea garden workers are the poorest. Moreover, labour wages of the tea plantation region of West Bengal have been worst as compared to the tea plantation region of the rest of the Country.

Table 3: Daily Wages of Major Plantation Districts of India

SL. No.	Plantation District	Effective Date/Period	Effective Date/Period	Daily Wages
1	Assam	a. Brahmaputra Valley b. Barak Valley	22.02.2021	205.00
2.	West Bengal	a. Dooars b. Terai c. Darjeeling	01.01.2021	183.00
3.	Tripura		01.05.2017	105.00
4.	Tamil Nadu		Oct 21 to Dec 21	a.396.83(Nilgiris) b.347.57 (Wayanad, Anamalai)
5.	Kerala		01.02.2019	414.68
6.	Karnataka		23.12.2017	357.16
7.	Himachal Pradesh		April,2020	275.00
8.	Uttarakhand		July,2020	330.00
9.	Sikkim		5.09.2017	300.00
10	Bihar		Jan,2020	175.00

²<https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahLUKEwi1yZb4k8PYAhWKN48KHh2PD4AQFggnMAA&url=http%3A%2F%2Fwww.thehindubusinessline.com%2Fopinion%2Findias-tea-industry-crisis-needs-urgent->

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TeaBoard of India Final Annual Report 2021-22

Frequent shutdown and dilapidated condition on Tea garden workers Livelihood

Since ages Darjeeling and Dooars have given India the largest and finest share of tea. However in return, the life of the workers of tea garden is still in despair and poverty. Since mid-eighties and after globalisation North Bengal tea industry can be divided into three parts, the comparatively healthy tea industry of Hills, the problem stricken tea growing areas of Terai and the crisis teas industry of Dooars where the incident of closure is the highest. According to the Fact finding Committee 2003: “ The term ‘Closed’ was used for those gardens that were abandoned by the management after following due process of law, by giving a notice of lock out to the operating unions and Labour department . The term ‘Abandoned gardens were those garden where the management followed no such process or cite law and order or financial problems for leaving the gardens and ‘reopened gardens’ were those where the old management or a fresh set of employers had come forward to run the garden once again , after discussion with the government and the union”. Only few tea gardens recovered which were closed during 2003-04. This phenomenon of frequent lockdown of the tea gardens had huge impact on the livelihood of tea garden workers of Assam, West Bengal and Kerala. Though Kerala was able to reopen tea gardens by putting the concept of workers ownership however West Bengal had no success.³

Companies lack of professional or technical expertise in running tea gardens.

According to the 51st Annual Report (2004-2005) of Tea Board of India, a total of 118 tea gardens were reportedly closed between the years 2000-2005 that had affected 68,442 workers. In many of the tea gardens, owners do not declare the garden closed but conveniently abandon them. These companies owe huge dues not just to the workers in terms of Provident Fund and gratuity dues but also to the respective state governments and concerned banks. Study conducted under CEC (2007) also reveals the reality of closed and abandoned tea gardens of West Bengal. It was suggested that none of them have experience in running tea gardens or reputation in the industry. They lack professional or technical expertise to run the garden successfully in the long term. These companies did not know how to face competition in the international market when markets opened up significantly after 2000. They siphoned off much of their profit while investing very little on the sustenance and expansion of the gardens and often do not care to respect the provisions of the Plantation Labour Act and have appropriated the Provident Fund due to workers. They have even succeeded injecting corruption into managerial staff and section of trade union leader thus compelling workers to remain captive of these so-called leaders. According to 63 Annual reports (2016-17), 13 tea gardens are closed, out of which 10 tea gardens are located in West Bengal and 3 Tea gardens are located in Kerala.

³ <http://www.thehindu.com/news/cities/kolkata/over-30000-trapped-in-abandoned-tea-gardens-in-north-bengal/article6159331.ece>

Study on SICKNESS (2015) reveals that the formation of the Trade unions in the tea gardens has further aggravated the issue of frequent shutdown of the tea garden. The presence of the trade unions in the tea gardens of North East India has distinct legacies of their own. INTUC is the largest trade union in the country which is present in Assam and it has marked its presence ever since the days of national movement. Trade unionism in North Bengal is comparatively younger and got its inspiration from the communist revolution going on the contemporary world on the eve of independence of the country. There basic concern was mainly welfare of the workers. The new economic policies of the central government were opposed by the trade union of the West Bengal in fact they strengthen the voice of the workers against the management in demand for higher wages from time to time. However when these demand were not met, the union declared strikes that further pushed the ailing industry into crisis as the industry loses valuable production thus undermining the scope of earning profit. At the same time management, whose intention where to shut down the garden used strikes by the union as a reason for losses and lack of payment to the workers.

Challenges of Dooars tea garden workers due to crisis in Tea Industry

With the start of new century problem of 90's crisis have resulted ultimately to the sickness of the tea industry of north Bengal. These problems were economic, social, political and environmental. Due to sudden loss, owners of the innumerable tea estates of the region packed up abruptly leaving the worker unpaid. Resulting into joblessness, desperation, hunger, poverty, malnutrition among the workers and their family. The state General Secretary of UTUC said that there are 14 closed tea gardens in Jalpaiguri and two closed garden in Darjeeling. In the closed tea garden basic facilities like drinking water, electricity, public distribution system and the hospital amenities have been withdrawn. As per government data, between 1st January and 31st march 2007, the number of death in North Bengal tea gardens was 571. Of these 402 were deaths of those who were less than 60 years of age, 317 were male and 254 were female, 62 were children less than 10 years of age. In June 2007, the trade and industry Secretary of the government of West Bengal admitted that poverty was the cause of a high number of deaths in tea gardens of West Bengal. According to him, the highest number of death was reported from kalchini tea garden, which was 68.

This crisis have not just affected the owners of the tea estates but the workers and their families are concerned, they are thrown into worse-off situations of extreme vulnerability especially women, children and the aged. Studies also show that 70% of the people in closed tea gardens are in the advanced stage of chronic energy deficiency (Biswas 2005). The condition of workers even in the so called “good” tea gardens is no different as the poverty regime is ubiquitous under the low- wage system. According to the National survey of tea workers closed, reopened and open tea plantations of the



Dooars region, malnutrition exist in the entire garden surveyed. Based on daily calorie intake 42.5% of the closed garden populations classified as below poverty Line (BPL), followed by 40% BPL in sick gardens and 30% BPL in open gardens. An IUF study reported malnutrition of workers on 15 reopened plantations. Using WHO criteria for body mass index (BMI), the survey found that workers in the reopened gardens were in the state of “Starving communities” or at “critical risk for mortality from starvation”. (Cited in harvesting hunger 2014).

A survey conducted in the closed gardens revealed that welfare schemes, the public distribution system and basic amenities such a safe drinking water, healthcare, primary education and electricity were practically non-existent (Chaudhury 2007). Lack of basic infrastructure like medical, education and other facilities and overall earnings have resulted in death due to starvation, suicides and have compelled children to drop-out from Schools. (Brewing misery). According to West Bengal Plantation labour Rules, (1956) hospitals in the tea growing areas of Darjeeling and Jalpaiguri must have a Garden hospital serious illness(Rule 21). A plantation employing 1000 or more should provide a hospital with at least 15 beds while a plantation with less than 1000 may share a hospital with another in the region. Furthermore, Rule 22 says that free medical facility must be provided to all workers and their families irrespective of the number of workers however there are no Group hospitals in the Dooars and Terai regions and majority lacked hospitals with bed. According to Synopsis of Tea Garden Survey, North Bengal (2013), Out of 273 Tea estates only 166 estates have hospital. More over the welfare measures of the central government are not reaching those workers. Out of 273 Tea estates only 16, only 22 tea estates are under AAY scheme.

Migration and Human Trafficking

Since the Liberalisation , frequent change in the status of the tea garden have a huge impact on the tea garden workers and their family member particularly children belonging to socially and economically marginalised tribal and non-tribal communities. Child labour in and out of the plantation is prevalent at a huge scale. CWM (brewing misery) study have identifies different category of child labour: inside the plantation namely in the plantation work or in other work and secondly outside the plantation for wage. Child labour inside plantations is either assisting parents in fulfilling productivity quota during lean season to avoid wage deductions and in assisting parents with household chores and childcare mostly performed by girl child. Child labour outside plantation ,among the girl child are mostly as domestic workers either employed locally else trafficked to large cities whereas among the boy child are employed as helpers in shops or work at construction sites or at factories. Under PLA and the child labour act, a person completed 14 years of age can legally be employed as a worker in a plantation. Despite the recent amendment to the PLA (Plantation Labour Amendment) Act 2010 that prohibits child labour in plantations (Section 24), the incidence of child labour in the tea plantation of north Bengal is extremely high.

In most of the tea gardens of Dooars hunger, poverty and unemployment, problems like illiteracy , drop-out, malnutrition

and diseases are rampant and the combined effect of such vulnerabilities has further contributed to trafficking of Children and women in large proportion. The prevailing economic hardship, social backwardness, absence of life supporting facilities, dearth of viable employment alternative and geographical isolation all have collectively created an environments of catastrophe and disgust in the plantation sector. One direct consequence of these is the large-scale migration of adolescents’ too far away destinations often with obvious knowledge and support of their parents, friends and relatives. (Ghosh 2013). When the Garden is abandoned or declared sick there is a mass exodus of migration even leading to flesh trade, prostitution (Ghosh 2013) and there is hardly any monitoring of such illegal activities in the Garden. Sudip Chakroborty(2013) also pointed out that due to backwardness of the dooars region of north Bengal are becoming the hunting ground for trafficking specially girl child pushing her into slave type domestic work else sex worker . Given the poor economic condition of the workers and their families have resulted in the trafficking in all cases allowing traffickers to strengthen their networks across different gardens and localities thereby making North Bengal a major source and transit zone for human trafficking in the region (Ghosh 2012).

The study conducted by action aid on June 2016 on 20 Tea Gardens of Alipurduar district in West Bengal shows that prevailing condition of the living condition of the tea plantation workers have been forcing many children to undertake various risks in absence of adequate support system. Reports also shows that because of the uncertainty of the tea garden , irregular jobs like daily labour, transport labour, stone collection and grinding at nearby bed , collecting and selling firewood , daily worker under road contractor , job under MGNREGA etc. are not sufficient to provide livelihoods to thousands of destitute workers . Therefore, migration to distant places like Delhi, Bangalore, Kerala, Kashmir, even to cities like Dubai in the middle-East countries in search of any kind of jobs is regularly reported. Huge cases were reported of missing family members. The major reason behind trafficking are considered to be Poverty , Unemployment, lack of awareness, promise of better job/comfortable life elsewhere, broken family, poor wage, large family, illiteracy, false promise, drop out, earn more money, greedy parents, peer group influence, domestic violence, attraction of silver screen and entertainment medias. At the same time no action by police or local authorities/protest, lack of facilities, alcoholism etc. are causes of trafficking in the area.

Failure in paying Dues of Provident and Gratuity funds

Responding to the concern of crisis of 2002-2003, the Ministry of Labour, Union of India appointed an inter-ministerial Committee on plantation labour and report was published on end of 2003. This showed that out of 4819 registered plantations, 1367 were defaulting in payment of workers dues, the largest default occurring in the plantations in Kerala, Assam and West Bengal. The committee warned that the default position would further deteriorate particularly in Kerala, West Bengal and Assam. Report OF International Labour Organisation on 2005 “100, 00 permanent workers were affected by state closures across the entire country ‘. ILO even noted that central government had adequate power under the tea act, 1953 to grant



relief to the workers however tea board continued to look at the plantation crisis purely on the marketing end and failed to fulfil its regulatory role as enshrined in the tea act. The tea board ignored the wages and provident fund defaults of the government'. Government of India through the tea board invested lump sum amount for the period from 1.4.07 to 31.3.12 got up gradation and product diversification scheme however it was not applicable for the sick garden neither much was done for the payment of workers dues⁴.

Issues related to unfair wages and non- fulfilment of statutory benefits are matters of great concern in the plantation. Frequent

shut down of the tea garden not only affected the younger generation of the workers but also the older section of the tea garden workers as they are devoid of the pension and old age welfare schemes. BMS reports that only a handful of people out of those who have applied for old age pension and widow pension could get a respond. Some applicants have expired too. The official deny pension saying that the applicants have crossed 58 years. Even though the Central government due to the lack of suitable buyer today acquires many of the sick and abandoned tea gardens, however the condition of the worker still haven't change.

Table 4: Status of Closed Tea Gardens

Sl no	Name of the tea garden	Date of closure	No of workers	Current status
1	Dheklapara	11.03.2006	804	The Garden was put up for e-auction by Calcutta high Court on 11 th may 2012, but no prospective buyer was available.
2	Bundapani	13.07.2013	1283	The State Gov. has taken the possession of the land of the closed Bundapani T.E. on 15 th Oct, 2014, on expiry of lease of land.
3	dharanipur	19.10.2013	807	The sate Govt. Has taken possession of the land of the closed Dharanipur T.E. on 18 th Nov, 2014
4	Redbank	19.10.2013	1588	The Sate Govt. took the possession of the land of closed Red bank T.E. on 21 st Nov 2014 on expiry of lease of land.
5	surendranagar	19.10.2013	451	The state Got has cancelled the Land lease of Surrender Nagar T.E by an order dated 14/11/2014 and the land has been taken over by the state Government on 13.01.2015
6	Madhu	23.09.2014	947	Labour unrest due non-payment of workers dues etc.
7	Panighata	10.10.2015	787	Labour unrest due non-payment of workers dues etc.
8	Manabari	21.03.2016	490	Labour unrest due non-payment of workers dues etc.
9	Joybirpara	23-03-2016	636	Labour unrest due non payment of workers dues etc.
10	Kumlai	15-11-2015	1118	Labour unrest due non-payment of workers dues etc.

Source: 63rd annual report 2016-17

As shown in the above Table 4. As many sick and closed gardens are still to receive payment due which have resulted into severe strikes and protests. Frequent strikes and bands have

severely affected worker's day-to-day life. Many of such Tea garden in Dooars whose Gratuity, PF and wages amount is pending for years, as shown below (2016).

Table 5. PF and Wages Dues of Dooars Tea Garden Workers

Garden	Closed since	Workers**	PF dues	Wages dues
Dheklapara	December 2005	804	Rs 72.94 lakh	Rs10 Lakh
Bundapani	July 2013	1,283	Rs291.26 Lakh	Rs. 42.17 Lakh
Dharanipur	October 2013	807	Rs193.48 lakh	Rs. 60 lakh
Redbank	October2013	1,588	Rs 63.93Lakh	Rs 219 Lakh
Surendranagar	October 2013	451	Rs 26.60 Lakh	Rs 79.62 Lakh
Madhu	September 2014	947	Rs462.26 Lakh	NIL

Sources:Union Minister of state for commerce and industry in the Lok sabha and state department (** The numbers of the workers constitute Temporary and permanent worker)

Out 273 properties producing tea, the provident fund contributions from 41 tea farms were non-existent, and 35 tea

plantations still owe money for arrears from their most recent wage settlement. According to the 2013 Synopsis of Tea

⁴ <http://www.hrln.org/hrln/labour-rights/pils-a-cases/561-supreme-court-of-india-grants-relief-to-abandoned-tea-garden-workers-being-ignored-by-government-since-past-one-decade-.html>



Garden, 66 tea gardens failed to provide gratuities to any of their laborers between 2012 and 2013. In order to collect unpaid debt of more than 1500 crores, the tea plantation employees of Duncan filed a petition against Duncan's industries in 2021.

CONCLUSION

Not only do ownership disputes and low yields contribute to the fundamental problems facing the tea gardens, but price realization also plays a part. Indeed, there is no development perspective for the tea industry as a whole. For the tea plantation region, an immediate alternate source of income production is required. Even Nevertheless, the federal and state governments are now heavily involved in ensuring the workers' access to food and financial stability. Collaborative research on weed and pest management in the tea sector is necessary. Management and employee training programs are required. Nonetheless, the area requires a stable source of income, which can only be achieved by encouraging more of tea tourism.

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ASSESSING THE DIGITAL LITERACY AMONG FRESHMEN COLLEGE STUDENTS: A DESCRIPTIVE-COMPARATIVE STUDY

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ABSTRACT

Digital literacy refers to the ability to find, evaluate, create, and communicate information using digital technologies. It involves understanding how to use digital tools and resources effectively and responsibly to achieve a desired outcome. Despite its significance, many individuals, particularly students, were still lagging behind in this aspect due to undeniable constraints on technology accessibility and wide disinformation online. To formulate a basis to augment the digital literacy of students, this descriptive study was conducted with the aim to test the significant difference of digital literacy when grouped according to sex and program. A sample of randomly selected 384 freshmen college students from different programs were involved in online surveys to achieve this purpose. Results showed that the level of digital literacy among the respondents is high which indicates that the variable is oftentimes manifested among the population of freshmen college students. More so, there was an identified significant difference of digital literacy when grouped according to sex and program. This study suggests that school-based programs, organizations, and activities relevant to digital literacy should be reintroduced and once more intensified to hone and harness the digital literacy of the population, particularly in the aspects of connectedness and creativity.

KEYWORDS: digital literacy, freshmen college students, descriptive-comparative study, Philippines

INTRODUCTION

Digital literacy refers to the ability to find, evaluate, create, and communicate information using digital technologies. It involves understanding how to use digital tools and resources effectively and responsibly to achieve a desired outcome. Digital literacy skills include basic computer skills, information literacy, media literacy, and critical thinking skills. According to Bawden and Robinson (2019), digital literacy is "the set of competencies needed to use and operate digital devices and services, and to access, evaluate, and produce digital content and services."

Digital literacy in India faces several issues and problems. Unequal access to technology, limited digital infrastructure, low digital literacy levels, and a limited focus on digital literacy in education are some of the significant barriers hindering the development of digital literacy skills among individuals and communities in India. Many individuals and communities lack access to basic digital technologies, especially in rural areas, which limits their ability to develop digital literacy skills. Inadequate digital infrastructure, limited internet connectivity, power cuts, and outdated technology in schools and colleges also limit the development of digital literacy skills among students and educators. Despite the growing emphasis on digital literacy, many individuals in India still lack basic digital literacy skills, especially those from low-income backgrounds, women, and the elderly. The education system in India also

does not adequately emphasize digital literacy, with limited resources and attention given to developing digital literacy skills (Bansal, 2020; Kumar & Sharma, 2020; Shrivastava & Verma, 2020; Singh & Bhatnagar, 2021).

Digital literacy in the Philippines faces several challenges, such as limited access to technology, lack of digital skills, underdeveloped digital infrastructure, and the spread of misinformation. According to a study by the Philippine Statistics Authority, 61% of Filipino households have no access to the internet, hindering the development of digital literacy skills. Moreover, only 30% of the Philippine population has basic digital skills, according to a report by Google and Temasek. The underdeveloped digital infrastructure, such as slow internet speed and limited connectivity, limits the ability of Filipinos to engage in digital activities and develop digital literacy skills. Lastly, the Philippines is among the countries with the highest number of social media accounts sharing and amplifying disinformation, as reported by the University of Oxford (Cabading, 2021; Roxas-Chua, 2019; Tigno, 2020).

There are lots of previously conducted studies related to digital literacy by Satin and Bonnet (2019) which tries to assess the digital literacy skills of undergraduate students in the United States across various disciplines and academic levels but there is no study conducted in the local contexts which specifically aims to explore and evaluate the digital



literacy skills of freshmen students, identify areas of strength and weakness, and suggest ways to improve their digital literacy skills through targeted educational interventions.

This study is founded from Information Processing Theory of Miller et al., (1960) cited by Van der Meijden and Veenman (2018) which emphasizes the cognitive processes involved in digital literacy, including attention, perception, memory, and problem-solving. Information processing theory suggests that digital literacy involves effectively processing, analyzing, and utilizing digital information to achieve goals. This theory is relevant to digital literacy because it emphasizes the cognitive skills necessary to process digital information efficiently. As there is an abundance of online information available today, digital literacy requires efficient navigation of such data. Information processing theory helps understand how people process digital information and how cognitive strategies can be developed to improve digital literacy. Likewise, Socio-technical theory of Trist and Emery (1959) expanded by Monteiro and Vetere (2018) is related to digital literacy in that it emphasizes the importance of understanding the social and cultural context in which digital literacy is developed. Digital literacy is not just a technical skill; it is also shaped by social and cultural factors, such as the availability of digital resources, the cultural values attached to technology, and the ways in which technology is integrated into everyday life. Socio-technical theory helps us understand how these factors influence digital literacy and how we can develop interventions that promote digital literacy in different social and cultural contexts.

OBJECTIVES OF THE STUDY

To realize the study's purpose, it attempted to answer the following objectives:

1. to determine the profile of freshmen college students in the local college;
2. to assess the digital literacy skills of freshmen students in the local college; and
3. to ascertain the significant difference of digital literacy skills of freshmen college students when grouped according to sex and program.

RESEARCH HYPOTHESIS

The following null hypothesis was tested at 0.05 level of significance:

1. There is no significant difference on the digital literacy skills of freshmen college students when grouped according to sex and program.

METHODOLOGY

This study adopted the descriptive-comparative research design. On one hand, descriptive research attempts to systematically investigate and describe a population, situation or phenomenon. This is also used to describe one or more variables and is considered as the simplest type of research (Aggarwal & Ranganathan, 2019). On the other hand, comparative research utilizes quantitative comparisons to mark the similarities and differences of the variables (Miri &

Shahrokh, 2019). In this study, this design will be employed to determine the significant difference of digital literacy of freshmen college students in Davao del Norte. There were randomly selected 348 freshmen college students across different programs in a local college in Davao del Norte who were identified through random sampling via proportional allocation.

The instrument used for assessing the digital literacy of respondents is the Digital Literacy Scale which was adapted from the work of Amin et al. (2021). This has a Cronbach Alpha 0.894 which is described as acceptable by DeVellis (2012). The instrument is a Five-point Likert Scale which has 36 items that are divided across nine domains, namely: communication, copyright, critical thinking, character, citizenship, curation, connectedness, creativity, and collaboration. The instrument was utilized in this study after it was subjected to content validation by the panel of experts which was assigned to scrutinize this study.

In the data collection procedure, the survey was encoded and distributed using Google Forms. After asking the respondents to answer the online survey, the data was collated in a Google Sheet and this was transferred to Microsoft Excel file in preparation for statistical analysis. Statistical tools were used which include frequency, percentage, mean, T-test, analysis of variance (ANOVA), and standard deviation to answer the objectives of this research.

Frequency and percentage were employed to describe the profile of respondents according to their affiliated program and sex. Mean was utilized to describe the level of digital literacy among the respondents. T-test and ANOVA were used to determine the significant difference of digital literacy skills when grouped according to program and sex.

More importantly, research ethics were upheld throughout the process of conducting this research to maintain the well-being and safety of all involved human participants (Denzin & Lincoln, 2011). Consent was sought by giving the respondents a choice to refuse to participate in the online survey. Moreover, confidentiality was ensured by not forcedly collecting the email addresses and other personal information of the respondents. Conflict of interest was avoided by the researchers by not including the sections where the proponents were teaching at the time of data collection.

RESULTS AND DISCUSSION

Profile of Freshmen College Students

Table 1 presents the frequency and percentage of distribution of respondents according to sex. On one hand, data shows that males dominated among the respondents with a frequency of 197, comprising 56.61% of the total sample of respondents. On the other hand, females who participated in the study is expressed in frequency of 151, comprising the 43.39% of the respondents.



Table 1
Frequency and Percentage of Respondents in Terms of Sex

Sex	Frequency	Percent
Male	197	56.61%
Female	151	43.39%
Total	348	100%

Displayed in Table 2 is the frequency and distribution of respondents according to their respective affiliated program. BSBA students dominated the group with a frequency of 85 and a percentage of 24.43% of the respondents, and this is followed by BSC students with a frequency of 75, comprising the 21.55% of the respondents. BPA students have a frequency of 51 and a corresponding percentage of 14.66% of the respondents, while

BSOA students garnered a frequency of 45 with a percentage of 12.93% of the respondents. BSEd students obtained a frequency of 41 corresponding to the 11.78% of the respondents, while there were 36 BSA students portioning 10.35% of the respondents. The least among the groups is the BEEd students with a frequency of 15 and a percentage of 4.31% of the respondents.

Table 2
Frequency and Percentage of Respondents in Terms of Program

Programs	Frequency	Percent
Bachelor of Elementary Education (BEEd)	15	4.31%
Bachelor of Public Administration (BPA)	51	14.66%
Bachelor of Science in Agriculture (BSA)	36	10.35%
Bachelor of Science in Business Administration (BSBA)	85	24.43%
Bachelor of Science in Criminology (BSC)	75	21.55%
Bachelor of Science in Office Administration (BSOA)	45	12.93%
Bachelor of Secondary Education (BSEd)	41	11.78%
Total	348	100%

Level of Digital Literacy of Freshmen College Students

Table 3 showed the summary of the level of digital literacy among the respondents which has a categorical mean of 3.74 and is described as high. This indicates that the variable is oftentimes manifested by the respondents. Further, this implies that freshmen college students were highly knowledgeable and skillful in utilizing digital tools to serve various purposes in cyberspace.

The highest identified domain of digital literacy is citizenship with a mean score of 4.19 which is described as high. This indicates that the domain of the variable is oftentimes

manifested by the freshmen college students. This only implies that the respondents tend to use the digital space to communicate respectfully with others while adhering to certain cyberspace laws and norms.

This domain is followed by character which obtained a mean score of 4.00 which has a description of high. This means that the particular domain is oftentimes manifested by the respondents. Further, this implies that freshmen college students tend to maintain a good character in the cyberspace, often persevering to maintain good relations and avoid posting negative remarks or content about others.

Table 3
Level of Digital Literacy of Respondents

Domains	Mean	Description
Communication	3.72	High
Copyright	3.80	High
Critical Thinking	3.75	High
Character	4.00	High
Citizenship	4.19	High
Curation	3.85	High
Connectedness	3.42	Moderate
Creativity	3.39	Moderate
Collaboration	3.58	High
Overall	3.74	High

Curation is the identified domain of digital literacy which garnered a mean score of 3.85 which is described as high. This indicates that the domain of the variable is oftentimes manifested by the freshmen college students. This also implies that the respondents have a high tendency to select only the reliable information from the internet and contribute meaningful and updated data on the cyberspace.

The previous domain is followed by copyright which obtained a mean score of 3.80 which has a description of high. This means that the particular domain is oftentimes manifested by the respondents. Further, this implies that freshmen college students oftentimes keep in mind to acknowledge the owners' ideas and information when they use such and persevere to avoid plagiarism to a high extent.



Critical thinking is the identified domain of digital literacy which garnered a mean score of 3.75 which is described as high. This indicates that the domain of the variable is oftentimes manifested by the freshmen college students. This also implies that the respondents are oftentimes able to pieces of information on the internet that they can use to solve problems in real-life situations.

The preceding domain is followed by communication which obtained a mean score of 3.72 which has a description of high. This means that the particular domain is oftentimes manifested by the respondents. Further, this implies that freshmen college students oftentimes demonstrate skills in establishing good communication and interaction online.

Collaboration is the identified domain of digital literacy which garnered a mean score of 3.58 which is described as high. This indicates that the domain of the variable is oftentimes manifested by the freshmen college students. This also implies that the respondents oftentimes showcase their ability to work together with others even with the use of online platforms.

The previous domain is succeeded by connectedness which obtained a mean score of 3.42 which has a description of moderate. This means that the particular domain is only manifested sometimes by the respondents. Further, this implies that freshmen college students only participate in online

communities and discussions for various purposes sometimes.

The lowest identified domain of digital literacy is creativity with a mean score of 3.39 which is described as high. This indicates that the domain of the variable is sometimes manifested by the freshmen college students. This only implies that the respondents only use digital tools to render contents of creative expression in online realm sometimes.

Significant Difference of Digital Literacy in Terms of Sex

The significant difference of digital literacy among the respondents in terms of sex is presented in Table 4. It was found that the null hypothesis is rejected, given that the probability value is less than the .05 level of significance. This implies that there is a significant difference of digital literacy among the respondents when grouped according to sex. Further, this provides that males (M=3.70, SD=.445) have higher digital literacy compared to females (M=3.80, SD=.406), considering that males have a higher mean score compared to females. Although this is the case, it was noted from the result that the difference of digital literacy between the two sexes is not that huge. More so, it was also noted that the responses of the freshmen college students were quite uniform due to the fact that the mean scores of all sexes have a standard deviation below 1.0.

Table 4

Significant Difference of Digital Literacy in Terms of Sex

Sex	Mean	SD	t-Value	P-Value	Decision
1. Male	3.70	0.445			
2. Female	3.80	0.406	-2.253	.025	H₀ Rejected

Significant Difference of Digital Literacy in Terms of Program

The significant difference of digital literacy among the respondents in terms of program is presented in Table 5. It was found that the null hypothesis is rejected, given that the probability value is less than the .05 level of significance. This implies that there is a significant difference of digital literacy among the respondents when grouped according to program. Further, this provides that BSEd students (M=4.056, SD=.421) have superior digital literacy to the rest of the programs,

considering that BSEd students obtained the highest mean score compared to the rest. Furthermore, this provides that BEEd (M=3.679, SD=.583) and BSA (M=3.68, SD=.4) students have the inferior digital literacy to the rest of the programs, considering that BEEd and BSA students obtained the lowest mean scores compared to the rest. Data showed that the difference of digital literacy among the groups is quite expanse. It was also noted that the responses of the freshmen college students were quite uniform due to the fact that the mean scores of all programs have a standard deviation below 1.0.

Table 5

Significant Difference of Digital Literacy in Terms of Program

Program	Mean	SD	F-Value	P-Value	Decision
1. BEEd	3.679	0.583			
2. BPA	3.753	0.415			
3. BSA	3.68	0.4			
4. BSBA	3.669	0.391	4.706	<.001	H₀ Rejected
5. BSC	3.745	0.417			
6. BSOA	3.671	0.423			
7. BSED	4.056	0.421			



CONCLUSIONS

The following conclusions were drawn based on the results of the study:

1. In terms of profiling, it was determined that males dominated the survey compared to females. Also, the greatest number of students was from BSBA while the least one was from BEEd.
2. In terms of the level of digital literacy, it was identified that the respondents oftentimes manifested the mentioned variable. The lowest domains of digital literacy were connectedness and creativity which were only manifested sometimes.
3. In terms of the significant difference of digital literacy of the respondents, it was found that there is significant difference when digital literacy is grouped according to age and sex.

RECOMMENDATIONS

The following were the recommendations to the concerned audiences of this study:

1. In view of the lagging digital literacy skills of respondents in terms of connectedness and creativity. It is highly suggested that school-based programs, organizations, and activities relevant to digital literacy should be reintroduced and once again intensified in the college to hone and harness the digital literacy of the population. Official online organizations of the college must be established to widen the linkages and connections of students in the online realm.
2. More so, trainings, workshops, and seminars on using digital tools must be increased to cater to the needs of all students from different programs, particularly BEEd and BSA students. Trainings, workshops, and seminars may be tailored to the program-specific needs of each department, incorporating the nine domains of digital literacy in the process. These trainings may include video editing, Adobe photoshop editing, desktop publishing, web design and many other topics related to digital literacy must be introduced to the academic community.
3. School administrators must also consider investing more on facilities, technologies, and other digital infrastructure in the college such as faster and better internet connection coupled with new televisions and overhead projectors in classrooms and offices to allow the proliferation of digital literacy among the college students and faculty in general. Procurement of additional technologies such as but may not be limited to laptops and computer units for the college library and computer laboratory must also be considered for the same purpose.

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AUTHOR'S PROFILE



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The Commission on Higher Education (CHED), the Philippine Association for Teacher Education (PAFTE), and other sponsoring organizations in the fields of education, research, and training currently sponsor him as he continues to advance his professional career by attending and completing a number of trainings and seminars.



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A TRACER STUDY ON THE ELEMENTARY EDUCATION GRADUATES FROM ACADEMIC YEAR 2015 TO 2019: EMPLOYMENT IN FOCUS

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ABSTRACT

This tracer study aimed to determine the graduates' employment rate and employability status of graduates under the Bachelor of Elementary Education – Generalist from batch 2015 to batch 2019 within a local college in Kapalong, Davao del Norte. Also, it identified the level of attitude to work, quality education provision of the institution and the graduate's skills and abilities development. Descriptive method of research was utilized in this study with a total of 209 respondents using the researchers-made tracer survey questionnaire that was conducted online with the used of Google Forms. Survey showed that the employment rate of elementary education graduates was 85.16% of which 61.8 % is working as teachers. Further, as to those whose work is non-teaching, 40.7% of them is working in the government, 48% is working as online sellers, validator and enumerator, 3.4% as call center agent, 3% as office-based clerk and 1.7% as domestic helper. Then, 31.6% are regular employees, 29.9% are full-time employees, 15.5% are self-employed, 11.5 are working on contractual basis and 6.9% are part-time employees. Meanwhile, survey showed that there are only 10% of the graduates who pursued further graduate and post-graduate studies. The level of attitude to work, quality education provisions of the institution as well as skills and abilities development obtained a very high descriptive rating which means that the elementary education graduates always manifested the said behaviors. Results showed that elementary education graduates lack knowledge and skill with multidisciplinary research. Thus, it is recommended that the institution will strengthen the implementation of thesis writing in the academe to hone and practice these future educators.

INTRODUCTION

The feedback of graduates through tracer study is one reliable indicator to affirm the effectiveness of the educational institution in providing quality education and services. This process is significant to continuously improve the curricular programs to respond to the changing educational landscapes, and the emerging needs of industry. Further, the knowledge-based society and knowledge economy seek new and appropriate skills to meet countries' growing global and economic development which can be answered by a tracer study (Morales, 2017).

Also, another important aspect of tracer study is for being an ideal tool of providing demonstrable evidence of course outcomes as it permits institutions to map the pathways of their clients. Hence, findings of tracer studies enable educational providers to evaluate the effectiveness of their academic programs (Fisher & Chapman 1995; Kongmanus, 2016).

Globally, Higher Education Institutions (HEIs) conducted a regular tracer study to get the most reliable feedback from its graduates on their program's effectiveness. In Africa, Flomo (2013) investigated the congruence between higher education and the labor market among college graduates. Additionally, the tracer study conducted by European Training Foundation (2017) supplemented the existing knowledge on the skills that

graduates of secondary education and vocational schools and HEIs have to offer and to determine the experiences of the graduates in their transition from education to the world of work. In Southeast Asia, Nazron, Lim, and Nga (2017) investigated the relationship between graduates' soft skills attributes and employment status in Malaysia using empirical evidence obtained from a tracer study.

In Cebu, Cañizares (2015) attempted to trace the Science and Mathematics Education (SME) graduates of the University of San Carlos, College of Education from AY 2009-2010 to AY 2011-2012 to determine the relevance of its curricular programs in meeting the needed manpower and the impending full implementation of the K-12 program. A total of 65 SME graduates were identified of which 43 served as survey respondents with a response rate of 66.2%. Data showed that the great majority of the respondents took and passed the Licensure Examination for Teachers (LET) in their first take, with two topnotch examinees and were mostly employed as full-time permanent teachers. Their retrospective evaluation of the curriculum indicated that its best aspect was the sequencing of the subjects.

In Davao del Sur, a tracer study with the elementary education graduates was conducted and results have shown that in the years 2001-2007, graduates were hired 6 months or below on their first jobs and having been hired more than 2 years in the



same job acquired after graduation with a monthly salary range of PhP20,001-30,000. The employed respondents were working in the non-denominational public sector in the local geographical field of work having been employed in a large-scale type of organization. There were 21.43% unemployed respondents which have common reasons of unemployment. Reasons include family matters, search for high paying jobs, health-related reasons, lack of work experience, pursued advanced studies, just for relaxation, and have plans to get a job outside the country. Lastly, there were 87.18% employed respondents whose present job matches their field of specialization and who are also claiming that the communication skills learned in college were found very useful in their current jobs (Lumando & Silat, 2016).

In the local setting, one of the local college in Kapalong started its operation last 2005 and it was the very first local college to be accredited by the Association of Local Colleges and Universities – Commission on Accreditation (ALCUA) Level 1 in Region XI. Now, in its desire to continually upgrade and enhance its teaching pedagogies to educate and train young professionals to be part of the ranks of young professionals worldwide, the institution deemed it fit to conduct a tracer study for its professional graduates to establish their employability including employment status. Also, this is for the institution to acquire insights or suggestions as to what improvements or innovations can be introduced into the current curriculum to further strengthen the viability of its young professionals related to their field and course of expertise.

Thus, it is now in this premise that this tracer study was conducted to check the employment rate and employment status of the graduate students as well as their self-rated evaluation about their attitude to work, the quality education provision of the institution and the development of skills and abilities of the graduates from Bachelor of Elementary Education (BEED) Generalist. This is for the institution to response its social obligations and values by developing and designing curriculum which will ensure the employment of the students after graduation and to further strengthen and develop its continuous offering of quality education.

OBJECTIVES OF THE STUDY

The primary purpose of this study was to:

1. Describe the demographic characteristics of the graduate-respondents in terms of:
 - 1.1. sex when grouped per academic year;
 - 1.2. civil status;
 - 1.3. age;
 - 1.4. year graduated; and
 - 1.5. educational attainment and development;
 2. Describe the employment profile and features of the graduate-respondents in terms of:
 - 2.1. employment rate;
 - 2.2. employment status;
 - 2.3. level of income;
 - 2.4. period of seeking the first job after college
 - 2.5. relevance of college degree to the present job;
- and
- 2.6. job mismatching.

3. Describe the level of the graduates-respondent self-rated evaluation with their attitude to work?

4. Determine the level of the graduates-respondent self-rated evaluation with the quality of education provision of the institution?

5. Determine the level of the graduates-respondent self-rated evaluation with the skills and abilities obtained in the institution and its usability with their present occupation?

METHODS

Design

This study used the descriptive method of research because this tracer study involved a collection of quantitative information that were tabulated in numerical form which is the very nature of descriptive studies. This research method primarily focuses on describing the nature of a demographic segment, without focusing on why a particular phenomenon occurs. In other words, it describes the subject of the research, without covering why it happens (Pamaran & Pamaran, 2013). Further, it also involves collecting data to test hypotheses or to answer questions. It likewise determines and reports the way things are. Lastly, descriptive research is a type of scientific research that describes an event, situation, phenomena or fact systematically dealing with certain area or population (Gay, 2016). In the study, the descriptive method of research was utilized to describe the employment rate and employment status of the Elementary Education – Generalist graduate of Kapalong College of Agriculture, Sciences and Technology. This is to quantify to what extent is the employment rate of the graduates to describe the employment status as well as their demographic profile specifically, with their gender, age and civil status.

Population and Sample

Primarily, the population and sample of this tracer study were the graduates of Bachelor of Elementary Education – Generalist in Kapalong College of Agriculture, Sciences and Technology from academic year 2015 up until academic year 2019. Hence, the study used complete enumeration random sampling since the very purpose of the study is to track and trace graduates in terms of their employment status and rate. To be specific, in year 2015, there were 66 graduates of which there were 21 males and 45 females; in year 2016, there were 5 males and 45 females; in year 2017, there were 12 males and 61 females which made a total of 73 graduates; in year 2018, there were 109 graduates to which 20 of this were males and another 89 females; lastly, in year 2019, there were 17 males and another 88 females which made a total of 105 graduates. Thus, the total population and sample of this study were 75 males and 323 females for a total of 398 Elementary Education graduates.

Research Instrument

The research instrument used in this study was a researcher-made which was validated by panel of experts in the field of research. After validation, the survey questionnaire was pilot tested in a total of 50 students who are all graduate students. Result of the Cronbach alpha was 0.955 which can be interpreted that the internal consistency of the questionnaire is excellent.



Data Collection Procedure

Data collection is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques. Further, in most cases, it is the primary and most important step for research, regardless of the field of research (Questionpro, 2020). Thus, the following were the primary steps taken responsibly by the researcher to gather the needed data of the study.

First, since the population and sample of the study included the Bachelor of Elementary Education graduate students of the institution, the researcher asked the data of the total number of graduates from academic year 2015 to academic year 2019 to the college registrar so that exact and accurate data will be considered and prioritized.

Second, after getting the total number of graduates, the researcher drafted and created the survey tracer questionnaire which determined the employment rate, employment status, educational attainment and development, attitude to work, quality education provision, and skills and abilities development of every graduate.

Third, the researcher validated the created survey questionnaire to its internal and external validator who were all experts in the field of research and holds doctorate degree in their own field of specialization. After validation, it undergone pilot testing which was conducted in different locale. The result of the reliability test was 0.908 described as excellent for attitude to work, quality of education provision, and skills and abilities.

Fourth, after drafting the survey questionnaire, the researcher started tracing the graduates as to their employment status and rate, educational attainment and development, attitude to work, quality education provision, and skills and abilities development which was done through google forms.

Fifth, after the graduate students completely answered the questionnaire, the researcher retrieved the questionnaire and started the tally in preparation for the data analysis and data treatment.

Lastly, the data was analyzed and interpreted by the designated statistician of the institution for the tabular and graphical presentation of the retrieved data for easier and better understanding of the result.

Data Analysis

For analyzing the data, mean was used for getting the average score in measuring the level of graduates’ attitude to work, evaluation of quality education provision and the development of different skills and abilities.

RESULTS AND DISCUSSION

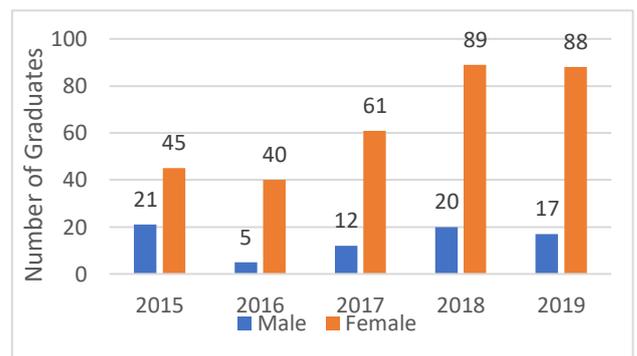
The results and discussion are presented in answer to the set objects of the study.

Demographic Characteristics of the BEED Graduates

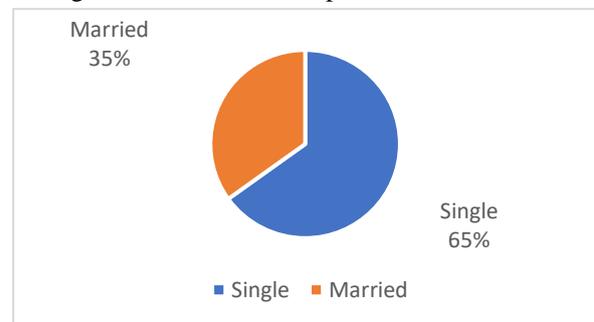
One of the main objectives of this tracer study is to describe the demographic characteristics of the Elementary Education

graduates from academic year 2015 up until academic year 2019. These demographic characteristics includes the sex, civil status, age, year graduated, and educational attainment and development.

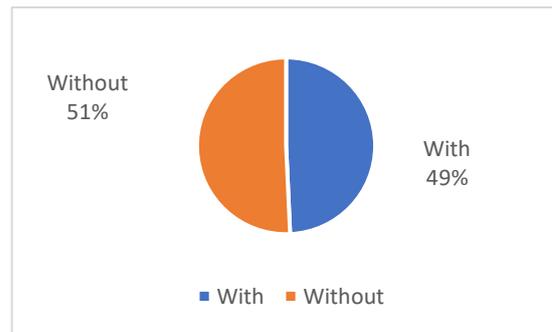
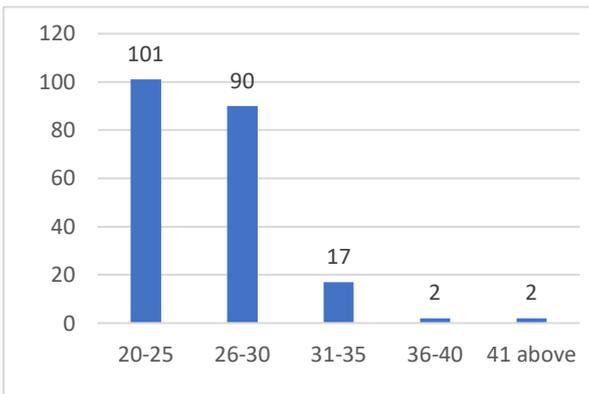
Sex. Shown in figure is the total number of Bachelor of Elementary Education graduates from the school year 2014-2015 to school year 2018-2019. In batch 2015, with the total of 66 number of graduates, 21 or 32% of this are males and the remaining 45 or 68% are females. In batch 2016, with the total of 45 number of graduates, 5 or 11% of this are males and the remaining 40 or 88% are females. In batch 2017, with the total of 73 number of graduates, 12 or 16% of this are males and the remaining 61 or 84% are females. In batch 2018, with the total of 109 number of graduates, 20 or 25% of this are males and the remaining 89 or 75% are females. Lastly, in batch 2019, with the total of 105 number of graduates, 17 or 25% of this are males and the remaining 89 or 75% are females.



Civil Status. Shown in the figure is the civil status of the Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Data showed that 65% or 164 graduate students are single and 35% or 45 graduate students are married. Also, listed in the survey questionnaire are the options widowed and separated but none of the graduates having this civil status in the present time.

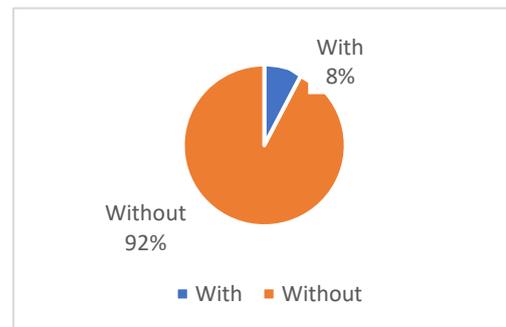
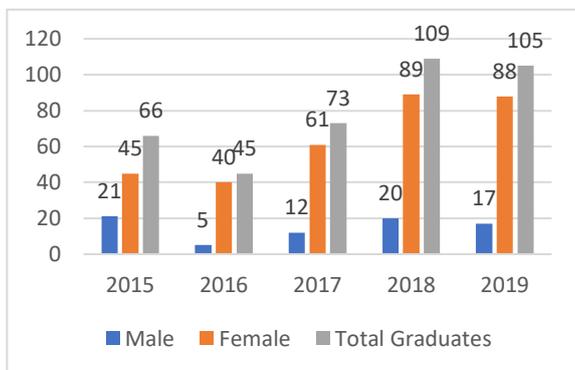


Age. Shown in the figure is the age of the Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. From the total of 209 graduates who responded to the online survey conducted through google forms, there are 101 graduates whose age ranges from 20-25, another 90 graduates whose age ranges from 26-30 and 17 graduates whose age ranges from 31-35 and there are 2 graduates whose age ranges from 36-40 and lastly, another 2 whose age ranges from 41 and above.



Year Graduated Shown in the figure is the total number of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. For the year 2015, there are 66 graduates of which 21 are males and 45 are females. In 2016, there are 45 graduates and 5 of this are males and the remaining 40 are females. In 2017, there are 73 graduates which composed of 12 males and 61 females. In 2018, there are 109 graduates of which, 20 of this are males and 89 are females. Lastly, in 2019, there are 105 graduates which composed of 17 males and 88 females.

Shown in the figure is the total number of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019 who obtained and undergone post graduate degree or studies. The survey reported that there are only 8% of the graduates who obtained and undergone post graduate studies or degree and there are 92% who do not proceed to further studies. Further, survey reported that there are only two degrees which graduates obtained and these are the Master of Arts in Education major in Educational Management and Master of Arts in Elementary Education to which the source of their funding is their work and the institution which they enrolled are St. Mary’s College of Tagum and University of Mindanao.

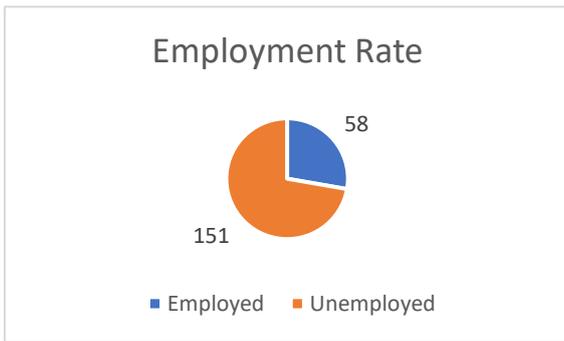


Educational Attainment and Development. Shown in the figure is the total number of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019 who obtained a vocational education and/or national certificate. The survey reported that there 49% of the graduates who obtained vocational education and 51% who does not obtain vocational education. This vocational education includes Food and Beverage (FBS), Bookkeeping, Housekeeping, Animal Production, Computer Servicing, Massage Therapy, Poultry Production, Bread and Pastry and Health Care Services.

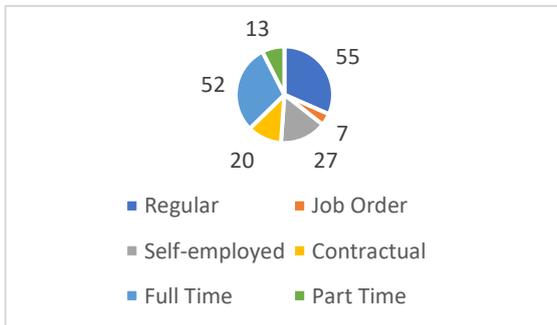
Employment Profile and Features of BEED Graduates

The second research objective of this tracer study is to determine the employment profile and features of the of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019 which includes the following: employment rate; employment status; level of income; period of seeking the first job after college; relevance of college degree to the present job; and job mismatching.

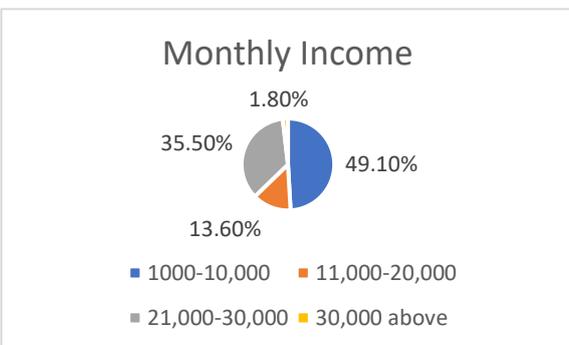
Employment Rate. Shown in the figure is the employment rate of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. The survey reported that with the total of 209 graduate students who positively responded to the online survey, 58 or 27.75% was unemployed and 151 or 72.25% was employed both in teaching which can be online, public schools, private schools or private tutors and non-teaching-profession which is specified in the next figure.



Employment Status. Shown in the figure is the employment status of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Result of the survey showed that from the 174 graduate students who responded in this aspect, 55 of them are working as regular employee, 20 are on a contractual basis, another 7 working in job order, the other 13 is working part-time, the 52 graduate students are working as full-time employee and lastly, the remaining 27 graduate students are self-employed.

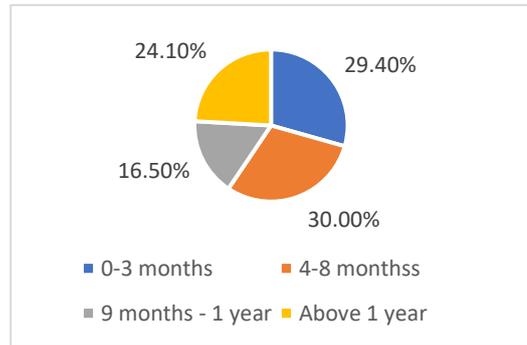


Level of Income. Shown in the figure is the monthly income of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Result of the survey showed that from the 169 graduate students who responded in this aspect, there are 83 or 49.1% who earned 1,000-10,000 per month, 23 or 13.6% who earned 11,000-20,000 a month and another 60 graduate students or 35.5% who earned 21,000-30,000 a month and lastly, there are 3 graduate students or 1.8% who can earn 30,000 and above per month.

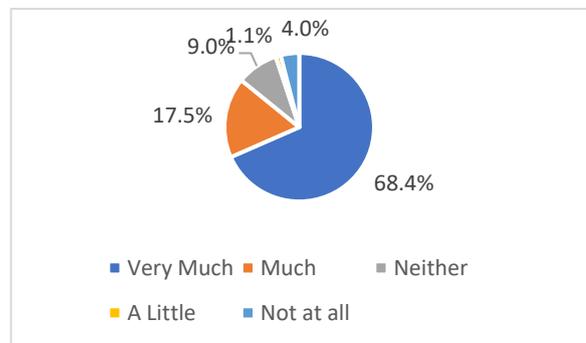


Period Seeking of Job After College. Shown in the figure is the range of period seeking of job after college of Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Result of the survey showed that from the 170 graduate students who responded in this aspect, there are 50 or 29.4% who took only 0-3 months to land with their first job, another 51 or 30% who are able to find job within 4-8 months. The other 28 or 16.5% are able to find job within 9

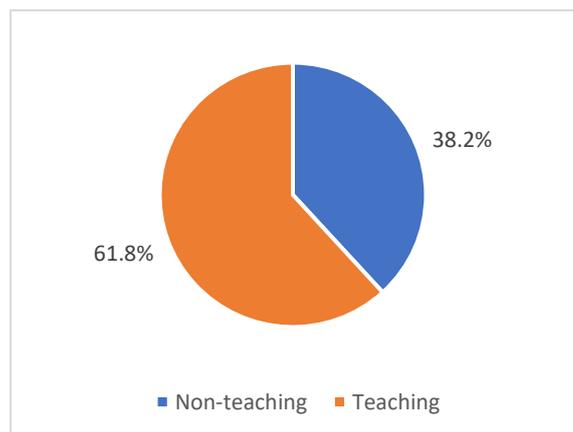
months to 1 year and lastly, the 41 or 24.1% landed a job after a year already.



Relevance of College Degree to the Present Job. Shown in the figure is the evaluation of the Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019 about the relevance of their college degree to their present job. Result of the survey showed that from the 177 graduate students who responded in this aspect, there are 121 or 68.4% chose very much relevant, another 31 or 17.5% chose much relevant and another 16 or 9% chose neither. The other 2 or 1.1% chose a little relevant and lastly, the remaining 7 or 4% chose not all.

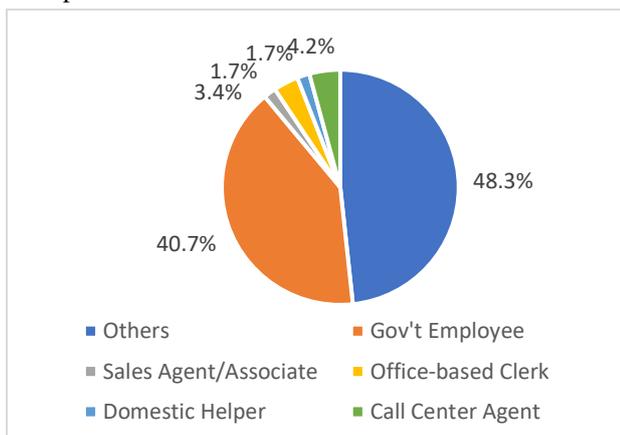


Job Mismatching. Shown in the figure is the job mismatching or job alignment of the Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Result of the survey showed that from the 178 graduate students who responded in this aspect, there are 110 or 61.8% of the graduate students who are working as teacher may it be in public schools, private schools, Higher Education Institutions (HEIs) or even online teaching. Meanwhile, the other 68 or 38.2% of the graduate students are non-teaching employee which is specified in the next figure.





Shown in the figure is the non-teaching job specifications of the Bachelor of Elementary Education – Generalist from academic year 2014-2015 to 2018-2019. Result of the survey showed that from the 68 graduate students who are non-teaching as shown in figure 17, 33 or 48.3% (others) are working as online seller, data encoder, enumerator, financial consultant and validator. The other 28 or 40.7% are working in the government. The other 1 or 1.7% is working as sales agent, associate and representative, the other 2 or 3.4% are working as office-based clerk and the other 1 or 1.7% is working as domestic helper. Lastly, the remaining 3 or 4.2% are working as call center agent and/or representative.



Level of the Bachelor of Elementary Education Graduates Attitude to Work

Shown in Table 1 is the level of the Bachelor of Elementary Education - Generalist graduates with their attitude to work which obtained and earned an overall mean score of 4.62 described as very high. This descriptive meaning and equivalent entails that the level of the BEED graduates' attitude to work is always manifested since the respondents strongly agree to all the identified sub-questions under attitude to work.

In the table, it showed that of all the ten sub-questions, item number 2 stating *I like the kind of job and work I am doing* obtained the lowest mean score of 4.52 with a descriptive equivalent as very high which means that the said item and/or construct is always manifested by the BEED graduates in their work or in their workplace. Meanwhile, the items which obtained the highest mean score of 4.73 are item numbers seven and ten stating *I have a good relationship with my colleagues and co-employees* and *I seek assistance and help from others whenever I have clarifications and queries* with a descriptive equivalent as very high which means that the said items and/or constructs are always manifested by the BEED graduates in their work or in their workplace.

Table 1.

Level of the Bachelor of Elementary Education Graduates Attitude to Work

Attitude to Work	Mean	Description
1. I am very interested, happy and satisfied with my work and it is very important for me.	4.56	Very High
2. I like the kind of job and work I am doing.	4.52	Very High
3. I accepted assignments and tasks given to me at work without complaints.	4.63	Very High
4. I arrived on time to prepare my work and extend working hours if necessary.	4.62	Very High
5. I can work better and functional under different working environment and situations.	4.64	Very High
6. I participated in all activities and events inside my workplace.	4.59	Very High
7. I have a good relationship with my colleagues and co-employees.	4.73	Very High
8. I submitted necessary documents and papers on time and beat deadlines.	4.62	Very High
9. I performed my task and job with excellence and outstanding quality.	4.56	Very High
10. I seek assistance and help from others whenever I have clarifications and queries.	4.73	Very High
Overall	4.62	Very High

Level of the Bachelor of Elementary Education Graduates Quality Education Provisions

Shown in Table 2 is the level of the Bachelor of Elementary Education - Generalist graduates with quality education provisions which obtained and earned an overall mean score of 4.62 described as very high. This descriptive meaning and equivalent entails that the level of the BEED graduates' quality education provision is always manifested since the respondents

always agree to all of the identified sub-questions under quality education provision.

From the ten sub-questions, item number three stating *conduciveness of the learning environment and atmosphere* obtained the lowest mean score of 4.28 with a descriptive equivalent as very good which means that the said item and/or construct is always manifested by the BEED graduates as they



studied in Kapalong College of Agriculture, Sciences and Technology (KCAST). Further, the items which obtained the highest mean score of 4.65 is item number two stating *quality of course contents from courses offered as well as the teaching*

and learning process which is described as very good which means that the said item and/or construct is always manifested by the BEED graduates as they studied in Kapalong College of Agriculture, Sciences and Technology (KCAST).

Table 4.

Level of the Bachelor of Elementary Education Graduates Skills and Abilities Development

Skills and Abilities	Mean	Description
1. Organizational and leadership skill.	4.30	Very High
2. Problem solving and critical thinking skills	4.32	Very High
3. Ability to work independently as well as teamwork and team play.	4.48	Very High
4. Creative thinking and creativity, initiative and taking a risk if necessary.	4.44	Very High
5. Time Management and decision-making skills.	4.38	Very High
6. Writing competence and skills including technical writing.	4.28	Very High
7. Communication and interpersonal skills.	4.44	Very High
8. Computer and ICT Skills	4.02	High
9. Technical and Entrepreneurial Skills	4.13	High
10. Ability to work under pressure.	4.43	Very High
11. Ability to write the essentials and basics of effective lesson planning.	4.44	Very High
12. Code of ethics applied to my teaching profession.	4.59	Very High
13. Knowledge with the different teaching methodologies, techniques and approaches through seminars and workshops.	4.46	Very High
14. Expertise about multidisciplinary research that is essential for understanding students' needs and interests.	3.92	High
15. Trainings, seminars and workshops about the preparation and evaluation of different instructional materials.	4.37	Very High
Overall	4.34	Very High

DISCUSSION

Below is the summary of findings based on the gathered data conducted through online survey using google forms, the conclusions drawn and the recommendations.

Demographic profile of the BEED Graduates

The first research objective of the study was to identify the demographic profile of the Elementary Education graduates from batch 2015 to batch 2019. Result of the survey showed that most of the graduates were female and majority of them are working as teachers. Also, more than half of the total population were single and their age ranges from 20 to 30 and only two of them ages 40 and above.

Further, studies explained that sex of a person influence and may affect their employment. A study about the employment of youngsters showed the different patterns of the employed and unemployed youngsters regarding sex, gender identity and their interaction in relation to perceptions of being employable. Meanwhile, concerning sex, women seem more confident about their employment chances when unemployed. In contrast, men feel more confident about their employment chances within their organization than women when employed (Cifre et al, 2018). Also, another proposition explained that women who want to work have a harder time finding a job than men. This problem is particularly marked in Northern Africa and the Arab States, where unemployment rates for women exceed 16%. Further, while vulnerable employment is widespread for both women and men, women tend to be overrepresented in certain types of vulnerable jobs: men are more likely to be working in own-account employment while women are more likely to be

helping out in their households or in their relatives' businesses (International Labor Organization, 2017).

On the other hand, one study emphasized and found that married women with young children at home who were able to work part-time were more satisfied with their work-life balance relative to those who were older and had no children at home. This only signifies that married woman who ca still works part-time tend and opted to be more successful compared to those who re married and having no children. Meanwhile, the opposite is true for mothers of young children working full-time (Kifle et al., 2014). Likewise, another study revealed the influence of civil status in looking for a job. The study revealed a significant three-way interaction to which finding statistically show significant differences in female mean applicant rating scores, such that lesbian women were rated higher when they were single compared with when they were married, and heterosexual females were rated higher when they were married compared with when they were single. Hiring managers should recognize that marital status, gender, and sexual orientation biases do effect hiring decisions and introduce unwanted bias. Hiring managers should also take precautionary actions to make sure that non-job relevant criteria do not influence their hiring decisions (Nadler & Kufahl, 2016).

Meanwhile, studies also revealed that that people are more likely to change jobs when they are younger and well educated, though not necessarily because they are more open to a new experience. Further, it was pointed out that both individual characteristics and the labor market are factors in career mobility and career changes. Thus, people were more likely to change their organizations, industries, and occupations when



they were younger, with the age effect being strongest (University of East Anglia, 2018). Lastly, another study revealed that task variety is more important for younger than older workers. For instance, survey research showed that younger workers with higher task variety are more satisfied with their jobs since they were able to perform differentiated and varied task. On the other hand, job attraction is stronger for older compared to younger workers to which it contradicts the idea that younger workers were more attracted to jobs with higher task significance than older workers (Zacher et al, 2017).

Educational Attainment and Development

This tracer study also describes the educational attainment of the Elementary Education graduates of which, result of the survey showed that half of the graduates earned and obtained a vocational educational degree and/or National Certificate Level II. This includes a national certificate in food and beverage, bread and pastry, bookkeeping, housekeeping, animal production, poultry production and computer servicing. In addition, some of the graduates as well continued and obtained degrees for further studies which are the Masters in Education major in Educational Management and Elementary Education.

In connection with this, survey showed that in 2019, the employment rate was higher for those with higher levels of educational attainment for the employment rate was highest for 25 to 34-year-old with a bachelor's or higher degree. Further, the employment rate for those with some college was higher than the rate for those who had completed high school which was higher than the employment rate for those who had not completed high school. The same pattern was observed among both sexes. For example, the employment rate for females was highest for those with a bachelor's or higher degree and lowest for those who had not completed high school (NCES, 2020). Also, another survey showed that the labor force in US has become increasingly educated over the last 24 years. From 1992 to 2016, the share of the labor force made up of people with a bachelor's degree and an advanced degree, includes people with master's, professional, and doctoral degrees, which has grown consistently, rising by 7 percentage points and 5 percentage points, respectively. Similarly, over the same time, the proportion of people with either less than a high school diploma or with a high school diploma but no college experience has declined by about 5 and 10 percentage points, respectively (Brundage, 2017).

Employment Profile and Features of BEED Graduates

Based on the result of the survey of this tracer study, more than half of the graduates are already employed and majority of them are working in the teaching profession may it be in public schools, private schools, online ESL teacher and also a full-time private tutor, however, some are working in the government, in call center agents' office-based clerk. Also, most of them are in regular status and part-time status to which earning 1000 to 20,000 per month.

In connection with this, a tracer study conducted also revealed that majority of the education graduates are Licensure Examination for Teachers (LET) passers, got their job within less than a month after graduating and currently employed with

salary ranging from P10,000.00 to less than P15,000.00 per month. Similarly, majority of them are competent and well-equipped in suiting the demands of the world employment market. Lastly, from the findings, the study recommends that the University should increase practice teaching hours and should conduct graduate tracer studies on a regular basis. The study also recommends that the Mentors' Society formulates intervention programs about financial literacy, self-branding, interpersonal skills, and career development (Herrera, 2017). Consequently, another tracer study revealed among the elementary education graduates, there were only 51 respondents who were LET eligible and only 2 were CSE qualified. There were only 5 holders of MAEd and none among the respondents were holders of Ph. D./Ed/D. degrees as their highest educational attainment. As to employment status, 32 were regular/permanent, 19 were contractual. The curriculum relevance according to the respondents was 75 and those who answered NO did not give any suggestions to further improve the curriculum. Among the competencies measured, communication skills ranked 1st, human relations ranked 2nd while entrepreneurial skills ranked 6th. It was significant to note that among the 120 respondents, 52 were self-employed (Dumas & Dumlao, 2015).

Level of the Bachelor of Elementary Education Graduates Attitude to Work

The level of the Bachelor of Elementary Education - Generalist graduates with their attitude to work was described as very high. This descriptive meaning and equivalent entails that the level of the BEED graduates' attitude to work is always manifested since the respondents strongly agree to all of the identified sub-questions under attitude to work.

In addition, this result is parallel to the study of which findings revealed that teachers' attitudes toward their work were influenced by eight variables: the support they received from their administrative team, their perception of the administration's consistency and values, their relationship with their principal, the behaviors of their coworkers, their experiences with teacher collaboration, the internal feelings they had about teaching, and the external forces that affected their careers (Beaver, 2016).

Also, it is emphasized that teacher attitudes, beliefs and virtues are more profound and important to the effectiveness of teaching than simply observable behaviors. further, the study also concluded that the belief systems of teachers have a dynamic, two-way connection with practice and are also vulnerable to change in light of practical experience (Muijs & Reynolds, 2015).

Level of the Bachelor of Elementary Education Graduates Quality Education Provisions

The level of the Bachelor of Elementary Education - Generalist graduates with quality education provisions was described as very high. This descriptive meaning and equivalent entails that the level of the BEED graduates' quality education provision is always manifested since the respondents always agree to all of the identified sub-questions under quality education provision.



This finding is in consonance to the study which pointed out that quality education can be measured from four perspectives: stakeholders' perceptions, quantifiable elements, course design elements, and external standards. Hence, it is recommended that definition of higher education quality should be aligned with required recognition of outside agencies. Still, there are studies which could not accommodate the perspective of students (Mitchell, 2016). Also, it was supported that quality education and sustainable development has significant relationship since study found that there is strong relationship between Quality Education and Sustainable Development Goals. Further, many studies by various national and international agencies related to 17 Goals of Sustainable Development found that quality education can bring big changes in the planning, policy making and implementation of the Sustainable Development Goals. The World community can achieve the Sustainable Development goals till 2030 with the help of quality education (Allam, 2019).

Level of the Bachelor of Elementary Education Graduates Skills and Abilities Development

The level of the Bachelor of Elementary Education - Generalist graduates with the skills and abilities development was described as very high. This descriptive meaning and equivalent necessitate that the level of the BEED graduates' skills and abilities development is always manifested.

This result is in consonance to the proposition which emphasized that there are many colleges or higher institutions which provide a difficult array of courses, majors and extracurricular opportunities, but firsthand accounts indicate that many undergraduates do not feel that the material conveyed in their readings and lectures has much relevance to their lives. These reasons suggest either that the courses do not contribute much to the ultimate goals that colleges claim to value or that instructors are not taking sufficient care to explain the larger aims of their courses and why they should matter (Bok, 2017). Further, another study explained that a relevant and proper implementation of life skill education is a need for today's society. Imparting life skills education to the students can be helpful as it specifically addresses the needs of children, helps in motivating, providing practical, cognitive, emotional, social and self-management skills for life adjustments. Also, it is pointed out that there is a positive results of imparting life skills education to students and bringing the change in adolescent's attitude, thought and behavior by providing supportive environment to them (Ravindra et al., 2017).

Summary of Findings

After the conduct of the survey which successfully responded to more than half of the respondents, the following are the summary of findings: the institution, Kapalong College of Agriculture, Sciences and Technology produced a total of 398 graduates which composed of 75 males and 323 females. In terms of civil status, the survey showed that 65% of the graduates is single and 35% is married. Talking about age, most of the total population of the graduates ages 20-25 of which there are only 2 graduates whose age is 41 above. Further, batch 2018 has the greatest number of graduates of 109 students and batch 2016 has the least number of graduates of 45. Lastly, there

are 49% of the graduates obtained a vocational course or National Certificate and only 8% of the graduate proceed to further studies.

In addition, when it comes to the employment rate, 72.25% of the graduates are employed and 27.25 are unemployed. Also, survey showed that almost half of the graduates who responded in the survey are regular employee while others are working full time. Further, most of the graduates have a monthly income of 1,000 to 10,000 and there are only few who earned at least 30,000 above monthly and most of them took 0-3 and 4-8 months to land a job after college to which most graduates agreed that their college degree is very much relevant with their present as it obtained a total of 68.4%. Lastly, there is 38.2% of the graduates who responded with the survey who work as non-teaching.

Lastly, survey showed that level of attitude of work of the BEED graduates is very high, the level of the quality education provision of the institution is very good and the level of the skills and abilities development is also very high.

CONCLUSION

After the conduct of the survey, the following were the conclusions drawn: the employment rate of the BEED graduates from batch 2015 to batch 2019 is 72.86 which can be gleaned that three-fourth of the graduates is competent enough to look for and to land a job. Also, most of the graduates are regular employee and some are working full-time. Lastly, since survey showed that the college degree of the graduates is very much relevant to their job, it can be noted that the institution offers quality education with courses and disciplines which prepares the graduates to their field of work.

In addition, the level of the attitude of work of the graduates' students obtained a descriptive equivalent of strongly agree to which it signifies that the graduates' students perform their tasks and responsibilities efficiently and effectively. Also, the level of the quality education provisions of the institution obtained a descriptive equivalent as very good to which it indicates KCAST offers quality education to most of their graduates by giving different trainings and seminars, providing varied learning resources and materials as well as the competent and skilled faculty members and staffs. Lastly, the level of the skills and abilities development of the graduates is very high which signifies that KCAST was able to develop, hone and sharpen the varied interest, skills and abilities of the graduates as they studied in the institution.

RECOMMENDATIONS

Based on the summary of findings and drawn conclusions of the study, the following are the recommendations of the study: First, since survey showed that there are percentage of the graduates are unemployed, it is recommended that the school will establish graduate and employability coordinator to trace and monitor the employment of the graduates and even conduct online forum to inform graduates with the different job vacancies and opportunities which they can apply.



Second, there are segments of the graduates' students who worked as non-teaching, thus, it is recommended that the school, must provide different trainings, seminar and workshop with the students so that they will be more motivated to continue and pursue the education profession since they were able to learn a lot of trainings, seminar and workshops way back in their college days which made them prepared, skilled and competent to become a teacher.

Third, in the construct of the skills and abilities development, it is noted that the item, expertise in multidisciplinary research obtained the lowest mean score. Thus, it is recommended that the institution must strengthen the implementation of the thesis writing of the BEED graduates so that they will be prepared, skilled and knowledgeable enough in crafting and making a thesis study in the future which may be applicable as well in their field of work.

Lastly, it is shown in the result of the study that it took the graduates 1-3 or 4-8 months to land a job after college. Thus, it is recommended that the institution will partner more with the local industry partners and community linkages which may help the graduates land a job right after they obtained a degree and finish college. In this case, graduates will have more job opportunities since the institution has a lot of industry partners and community linkages.

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EARTHQUAKE PREPAREDNESS OF SELECTED POLICE STATIONS IN METRO MANILA, PHILIPPINES: TOWARDS OPERATIONAL CAPABILITIES

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ABSTRACT

This study employed quantitative research methods to evaluate the level of earthquake preparedness in selected police stations located in Metro Manila. The study examined four crucial aspects: Organization and Planning, Resources and Logistics, Coordination and Responsiveness, and Training. Information was gathered from two cohorts: 207 law enforcement officers stationed at the designated police stations and 200 individuals from the general population living in Metro Manila. The study utilized a survey questionnaire that applied a four-point rating scale, ranging from "Highly Prepared" to "Not Prepared," to assess the perceptions of both groups regarding the preparedness of these police stations. The findings revealed a significant disparity in the perception of earthquake readiness between police personnel and the civilian population at the selected stations. Police personnel usually maintained a favorable perspective, considering their stations well-equipped and competent, whereas the civilian populace reported lower confidence in their preparedness. This difference in perception highlights the necessity for enhanced communication, education, and community involvement to close the gap and increase public knowledge of the earthquake preparedness initiatives of police stations in Metro Manila. Hence, the research suggests prioritizing teaching programs for police personnel and cultivating closer ties with local people to establish confidence and enhance earthquake preparedness endeavors. Overall, this study provides significant knowledge about the earthquake readiness situation in specific police stations in Metro Manila. This information has implications for improving disaster management strategies and initiatives, ultimately leading to more efficient preparedness and response efforts in the event of earthquakes in the region.

KEYWORDS: *Earthquake Preparedness, Police Stations Operational Capabilities, Organization and Planning, Resources and Logistics, Coordination and Responsiveness, and Training. Information*

INTRODUCTION

Due to its geographical location in the Pacific Ring of Fire, the Philippines is susceptible to seismic and volcanic occurrences. The nation is making arrangements for an imminent seismic event known as "The Big One," which is projected to be a 7.2 magnitude earthquake originating from the West Valley Fault. This earthquake is anticipated to strike Metro Manila and its adjacent region. The Office of Civil Defense (OCD), in collaboration with the Bureau of Fire Protection (BFP) and other government organizations, has been organizing a sequence of earthquake drills. This is to acquaint the individuals with the anticipated consequences outlined in the 2004 Metro Manila Earthquake Impact Reduction Study (MMEIRS). Based on the data from MMEIRS, it is estimated that "The Big One" has the potential to demolish around 40% of residential structures and cause damage to 35% of public buildings. Additionally, there is a potential for 34,000 fatalities and 114,000 individuals sustaining severe injuries. Furthermore, the subsequent fire occurrences could

contribute to an additional 18,000 fatalities. The authorities anticipate a reduction in those figures through the implementation of exercises and education campaigns.

Section 5 of the Declaration of Principles and State Policies of Article II in the Philippines Constitution mandates the maintenance of peace and order, the protection of life, liberty, and property, and the promotion of the general welfare are essential for the enjoyment by all the people by the blessings of democracy. It is in the context of this constitutional provision that the Philippine National Police Mission states that: "*the PNP shall enforce the law, prevent and control crimes, maintain peace and order, and ensure public safety and internal security with the active support of the community*". The responsibilities of the PNP during an earthquake emergency include prompt reaction and rescue operations, traffic control, ensuring public safety, and effective communication and coordination. Their proactive readiness and swift, highly coordinated efforts are crucial in



protecting lives and limiting the consequences of earthquakes in the Philippines.

Upon the occurrence of an earthquake, it is imperative for the Philippine National Police (PNP) to assess the situation promptly. It is advisable to mobilize professional search and rescue teams trained in urban search and rescue tactics to find and rescue those trapped in collapsed buildings or impacted areas. These teams frequently collaborate with other emergency responders, such as firefighters and medical staff, to ensure efficient coordination of actions. The prompt and efficient reaction of the PNP is vital during the critical period immediately after an earthquake, known as the "golden hours," as it greatly influences the likelihood of saving lives and reducing injuries. Strategically placing incident command stations improves the coordination of rescue and relief activities.

The PNP, as a stakeholder, follows specific procedures outlined in the Standard Operating Procedure (SOP) No. ODO-2010-003, dated August 9, 2010, for the Organization of the Critical Incident Management Committee (CIMC) and the Critical Incident Management Task Group (CIMTG). These procedures are in accordance with Presidential Decree 1566, which aims to enhance the Philippines' ability to control disasters, and Republic Act 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, which establishes the National Program on Community Disaster Preparedness. This document establishes the policies and standard procedures for managing critical occurrences, providing guidance to all units of the Philippine National Police (PNP) at every level in dealing with various crises. The text describes the identification of the composition and organizational structure of the Critical Incident Management Committee (CIMC) and the Critical Incident Management Task Groups (CIMTGs).

This study provides a concise and targeted approach for examining a crucial part of disaster management in a region prone to seismic activity. Given Metro Manila's high vulnerability to earthquakes, it is crucial to evaluate the preparedness of critical establishments such as police stations. This research is crucial as it seeks to assess the present condition of earthquake readiness inside these establishments, identifying their strengths and shortcomings, and eventually providing guidance for enhancing their operating capacities.

Furthermore, the study indicates a proactive attitude by highlighting the objective of advancing "towards operational capabilities." The study not only focuses on identifying inadequacies but also aims to offer practical ideas and solutions to enhance the capacity of police stations to effectively respond to earthquake disasters. Conducting this research can provide useful knowledge, resulting in better disaster response, greater public safety, and higher ability to withstand seismic disasters. Ultimately, this benefits the safety and well-being of the people in Metro Manila.

LITERATURE REVIEW

The importance of education and community participation in disaster risk reduction, specifically in earthquake preparedness for police stations in Metro Manila, is emphasized by UNESCO Bangkok (2017), World Health Organization (2017), and Maskrey (2013). These articles highlight the significance of knowledgeable and educated police personnel and communities in comprehending earthquake hazards, response methods, and the value of community engagement. Hence, police stations must prioritize educational initiatives for their staff and actively foster connections with local communities to enhance their readiness and effectiveness in handling emergencies. Maskrey (2013) promotes community-based initiatives to strengthen police stations by fostering cooperation and collective accountability within the community.

Morris (2016), FEMA (2015), and Sagala, Dwiyani, Bajek, Takeuchi, and Okada (2013) emphasize the importance of gathering data, coordinating efforts, and assessing vulnerability. Reliable data, as examined by Morris (2016), is crucial for making well-informed decisions during earthquake responses. The significance of collaboration among different agencies and the understanding of household-level characteristics for targeted preparedness are emphasized by FEMA's guidelines for coordination (2015) and the insights provided by Sagala et al. (2013). Police stations must implement explicit data gathering processes, efficiently collaborate with other groups, and identify susceptible communities to customize their initiatives accordingly.

The difficulties and factors to be taken into account as discussed in the papers by Koehler (2016), Chan (2015), and Simpson and Richards (2015). Koehler's chaos theory (2016) emphasizes the inherent unpredictability of earthquake responses, highlighting the need for police stations to balance adaptability and readiness. In his 2015 study, Chan emphasizes the intricate nature of disaster management, illustrating how police stations may be required to navigate various techniques when faced with relocation issues. The study conducted by Simpson and Richards (2015) emphasizes the importance of analyzing seismicity trends for police stations to anticipate and respond to earthquakes effectively. It is recommended that police stations prioritize predictive indicators while also placing a significant emphasis on education and readiness.

Jackson, Rantucci (2014), and Lachica (2015) provide historical perspectives and concerns for government responses. Jackson examines government reactions, encompassing global aid, emphasizing the necessity for local police stations in Metro Manila to comprehend these dynamics. Rantucci's historical analysis (2014) provides insights gained from previous calamities in the Philippines, which police stations can utilize to enhance their current readiness initiatives. In Lachica's evaluation of the function of security forces (2015), the significance of inter-agency cooperation in disaster response is emphasized, with police stations assuming a pivotal role.



This literature combined highlights the significance of education, community involvement, data gathering, coordination, and vulnerability assessment in improving earthquake readiness at the police stations of Metro Manila. Nevertheless, they also emphasize the difficulties of achieving a harmonious equilibrium between adaptability and readiness, maneuvering through various approaches to catastrophe management, considering seismic trends, comprehending governmental reactions, and extracting insights from past occurrences. Law enforcement agencies should utilize this information to create thorough earthquake readiness strategies customized to their respective areas' distinct requirements and vulnerabilities.

OBJECTIVES OF THE STUDY

The study assessed the level of earthquake preparedness of selected police stations in Metro Manila to serve as the basis for an action plan.

Specifically, it sought answers to the following questions:

1. What is the level of preparedness of selected police stations in Metro-Manila, as perceived by the two groups of respondents in terms of:
 - 1.1 Organization and Planning;
 - 1.2 Resources and Logistics;
 - 1.3 Coordination and Responsiveness; and,
 - 1.5 Training?
2. Is there a significant difference in the assessments of the two groups of respondents on the level of earthquake preparedness of selected police stations in Metro Manila relative to the abovementioned variables?
3. Based on the study's findings, what measures can be proposed to enhance the earthquake preparedness and capabilities of selected police stations in Metro Manila?

METHODOLOGY

The descriptive-normative method of research was used in this study. The descriptive method of research was used to underscore all the data collected in the furtherance of data interpretation and analysis to arrive at an empirical answer to enhance better job and activity analysis concerning the problems presented in this study. The researcher undertook the utmost care in gathering data to come up with a complete and reliable input for this study. Descriptive statistics like the average weighted mean and the percentage rate were used in order to answer questions based on the study. The T-test was utilized because there are not more than two groups of respondents. Verbal interpretation was indicated through the four-point rating scale. To meet the actual requirements of the subject under investigation, the researcher will also use the normative research method to clearly describe and define the earthquake preparedness and capacity of the selected areas in Metro Manila, which is the central focus of this study. A normative survey is a fact-finding study with adequate and accurate interpretation. It collected demographic data about people's behavior, practices, intentions, beliefs, attitudes, opinions, judgments, interests, perceptions, etc. Then, such data was analyzed, organized, and interpreted in a normative survey;

it focused more attention on data collection so that all were adequately classified and categorized according to their relevance and contribution inputs to the analysis and interpretation of the collected data.

Scope and Delimitation

The scope of this study was limited to assessing the earthquake preparedness and operational capabilities of selected police stations in Metro Manila, specifically focusing on areas such as Organization and Planning, Resources and Logistics, Coordination and Responsiveness, and Training. The geographic coverage included the cities of Taguig, Makati, Pasig, Parañaque, and Muntinlupa, and data were collected from two groups of respondents: 207 personnel from the selected police stations and 200 individuals from the general populace. The study encompassed the years 2018, 2019, and 2020, offering insights into earthquake preparedness within these parameters while acknowledging potential limitations in applying the findings beyond this defined scope.

Data Gathering Tool

This study utilized a survey questionnaire designed to assess the level of earthquake preparedness and capabilities of selected police stations in Metro Manila, as perceived by two distinct groups of respondents: personnel from the selected police stations and individuals from the general populace. The questionnaire was structured to evaluate five key dimensions: Organization and Planning, Resources and Logistics, Coordination and Responsiveness, Information and Public Awareness, and Educational Training. Respondents were asked to rate the preparedness and capabilities of the police stations on each dimension using a four-point rating scale. The scale consisted of the following categories: "4 - Highly Prepared (HP)," "3 - Prepared (P)," "2 - Less Prepared (LP)," and "1 - Not Prepared (NP)."

This data gathering tool aimed to provide a comprehensive assessment of the selected police stations' earthquake preparedness from both internal and external perspectives. The inclusion of two respondent groups allowed for a comparative analysis, highlighting potential gaps in perception between police personnel and the general populace regarding the stations' readiness for earthquake-related incidents. The use of a four-point rating scale offered a structured and quantifiable means of capturing these perceptions, enabling researchers to quantify and analyze the perceived preparedness and capabilities across the specified dimensions. Ultimately, this data gathering tool served as a crucial instrument in obtaining empirical insights into the earthquake preparedness status of the selected police stations in Metro Manila, shedding light on areas that may require improvement and guiding future disaster management efforts.

Data Gathering Procedures

The data collection methods utilized in this study involved two primary approaches: the acquisition of documentary or secondary data and the implementation of a survey.



The researchers began by collecting documentary or secondary data. This involved conducting a thorough search in library catalogs to find books and reading materials relevant to disaster management and earthquake preparedness programs. They also looked for legal mandates that were important for the study. The materials underwent a thorough evaluation and analysis to extract significant insights and information that would support the study's aims. The collected data was thoroughly evaluated for its pertinence and usefulness, and resources that met the criteria were either photocopied or condensed for easy access, with proper indexing of authorship, publishing details, and descriptions of resource materials. Establishing a thorough knowledge base through this method served as the foundation for the succeeding phases of the study.

The second primary data collection technique employed was the survey, necessitating the acquisition of consent and assistance from the five designated urban police stations and the civilian population involved in the study. The researchers received official authorization to carry out the survey and interacted with different groups of respondents, ensuring they comprehensively understood the study's objectives, purpose, and expected advantages. The survey was methodically designed and arranged, focusing on distinct topics pertinent to the inquiry. The researcher directly supervised the distribution and collection of survey questionnaires, guaranteeing that every group of respondents could share their perspectives. A comprehensive examination was conducted throughout the data collection procedure to verify that all questionnaire items obtained complete and comprehensive responses. Any elements that were left blank or had erasures that needed to be clarified and made it difficult to determine the chosen options were considered invalid.

After retrieving the questionnaires, the researchers condensed and organized the gathered data while a skilled statistician conducted the statistical analysis. The researchers assessed the survey data, and the statistician provided additional insights and input to contribute to the analysis. The use of a multi-phase method for data collection ensured that both qualitative and quantitative data were obtained, enhancing the study's results and establishing a solid basis for assessing the earthquake preparedness and

capabilities of the chosen police stations in Metro Manila, as well as the viewpoints of the civilian population involved in the study.

Ethical Considerations

During the study on earthquake preparedness in selected police stations in Metro Manila, numerous crucial ethical considerations were noted. All respondents, including both police officers and civilians, provided informed consent, demonstrating their voluntary involvement and comprehension of the study's objectives. Stringent protocols were implemented to preserve privacy and secrecy, safeguarding sensitive information. The study sought to mitigate harm, ensure equitable treatment of all respondents, and offer potential advantages to both people and society. When necessary, we secured ethical approval and ensured transparency throughout the research process. The findings were appropriately reported, and the respondents were provided with debriefing sessions. In summary, the study adhered to ethical norms by upholding integrity, respecting participants' rights, and complying with relevant rules.

RESULT AND DISCUSSION

Level of Earthquake Preparedness of Selected Police Stations in Metro Manila

Table 1 presents the level of earthquake preparedness of selected police stations in Metro Manila of Organization and Planning. It was prepared with an overall mean of 3.03. The PNP considered them highly prepared, with a mean of 3.59, but the Populace considered them less prepared, with a mean of 2.47. In general, all indicators were prepared. These were: "Operational plans are implemented properly" with a mean of 3.15; "Support agencies have specific roles in counter earthquake activity" with a mean of 3.13; "Police station is well organized to deal with an earthquake" with 3.03; "Standard procedures and operational plan before, during and after an earthquake known and understood by personnel" with 3.01; and, "Earthquake operational plan is reviewed regularly" with a mean of 2.89.

Table 1
Level of Earthquake Preparedness of Selected Police Stations in Metro Manila in terms of Organization and Planning

INDICATORS	PNP		Populace		OVERALL	
	Mean	VI	Mean	VI	Mean	VI
The police station is well organized to deal with earthquake	3.61	HP	2.44	LP	3.03	P
Support agencies have specific roles in counter-earthquake activity	3.73	HP	2.52	P	3.13	P
Standard procedures and operational plans before, during, and after an earthquake known and understood by personnel	3.56	HP	2.45	LP	3.01	P
Earthquake operational plan is reviewed regularly	3.27	HP	2.45	LP	2.86	P
Operational plans are implemented properly	3.80	HP	2.50	P	3.15	P
OVERALL MEAN	3.59	HP	2.47	LC	3.03	P



UNESCO Bangkok (2017), World Health Organization (2017), and Maskrey (2013) stress the significance of education and community involvement in reducing catastrophe risks, particularly in earthquake preparedness for police stations in Metro Manila. These articles emphasize the importance of well-informed and educated police personnel and communities in understanding earthquake risks, response strategies, and the benefits of community involvement. Therefore, it is imperative for police stations to give priority to educational efforts for their staff and aggressively cultivate relationships with local communities in order to improve their preparedness and efficiency in managing emergencies.

Morris (2016) underscores the need of data collection, as dependable data is crucial for making judicious judgments in the context of earthquake reactions. The importance of collaboration among many agencies is emphasized, and police stations must effectively cooperate with other groups to improve their earthquake readiness.

Koehler's chaos theory (2016) underscores the intrinsic unpredictability of earthquake reactions, underscoring the imperative for police stations to maintain a delicate equilibrium between adaptation and preparedness. The seismicity research

conducted by Simpson and Richards (2015) highlights the significance of examining seismicity patterns in order to anticipate and effectively address earthquakes for police stations. Police stations should prioritize the use of predictive indicators and also give considerable importance to education and preparation.

Table 2

Level of Earthquake Preparedness of Selected Police Stations in Metro Manila in terms of in terms of Resources and Logistics
 Table 2 depicts the level of earthquake preparedness of selected police stations in Metro Manila as perceived by two groups of respondents in terms of Coordination and Responsiveness. It was prepared with an overall mean of 2.98. It was highly prepared for the PNP with a mean of 3.49 and was less prepared for the Populace with a mean of 2.48. However, all indicators had an interpretation as prepared. These were: "Updated earthquake preparedness consciousness drive covering all preventable disasters" had a mean of 3.14; "Maintains ideal number of police personnel to implement earthquake preparedness program" had 3.11; "Responsiveness of personnel during rescue operation" had 3.02; "Mobilization of personnel during emergency service" had 2.92; and, "The police station is complemented by committed and skilled personnel to conduct rescue" had 2.74.

INDICATORS	PNP		Populace		OVERALL	
	Mean	VI	Mean	VI	Mean	VI
Availability of financial and logistical support needed to sustain the police station earthquake preparedness program	3.94	HP	2.39	LP	3.17	P
Efficient flow and dependable communication system	3.70	HP	2.50	P	3.10	P
Availability of transportation mobility use for the evacuation of the victim	3.74	HP	2.47	LP	3.11	P
Enough funds for the supply of gasoline for responding to calls of duty	2.97	P	2.47	LP	2.72	P
Availability of evacuation center for emergency response	3.17	P	2.35	LP	2.76	P
OVERALL MEAN	3.50	HP	2.44	LP	2.97	P

The police stations exhibit a heightened state of readiness, in accordance with FEMA's (2015) emphasis on the significance of logistics and resources in disaster management. The police stations' adherence to FEMA's criteria is clearly demonstrated by their strong performance in areas such as financial and logistical assistance, efficient communication systems, and transportation mobility. These factors are essential for an effective earthquake response (FEMA, 2015).

Nevertheless, the public's view of the level of resource allocation at police stations is categorized as "Less Prepared," suggesting a perceived discrepancy between the actual resources available in police stations and the community's beliefs about their availability. This disparity highlights the necessity for police stations to augment public consciousness, as advised by UNESCO Bangkok (2017), the World Health Organization

(2017), and Maskrey (2013). The articles highlight the need to involve the community and educate the public in reducing the risks associated with disasters, specifically in terms of being prepared for earthquakes (UNESCO Bangkok, 2017; WHO, 2017; Maskrey, 2013). Interacting with the community to convey the accessibility and sufficiency of resources can assist in closing this gap in perception and improving overall preparation.

Furthermore, the data point that emphasizes the presence of evacuation centers for disaster response reveals a need for better logistical assistance. This is in line with Koehler's (2016) advice, which underscores the significance of comprehending the intricacies and difficulties associated with disaster response, including the presence of appropriate infrastructure (Koehler, 2016).



To summarize, although the chosen police stations demonstrate a commendable degree of earthquake readiness in terms of resources and logistics, it is necessary to address the discrepancy in perception among the general public. This can be accomplished by actively involving the community and implementing educational programs, in accordance with the ideas specified in the mentioned references. Increasing public knowledge can help improve the cohesiveness and effectiveness of the earthquake response strategy in Metro Manila.

Table 3
Level of Earthquake Preparedness of Selected Police Stations in Metro Manila in terms of Coordination and Responsiveness

INDICATORS	PNP		Papulace		OVERALL	
	Mean	VI	Mean	VI	Mean	VI
Maintains the ideal number of police personnel to implement the earthquake preparedness program	3.94	HP	2.27	LP	3.11	P
Updated earthquake preparedness consciousness drive covering all preventable disasters	3.76	HP	2.51	P	3.14	P
Responsiveness of personnel during rescue operation	3.38	HP	2.65	P	3.02	P
The police station is complemented by committed and skilled personnel to conduct rescue	2.97	HP	2.51	P	2.74	P
Mobilization of personnel during emergency service	3.38	HP	2.46	LP	2.92	P
OVERALL MEAN	3.49	HP	2.48	LP	2.98	P

Sagala (2017) examines socioeconomic vulnerability in natural catastrophes, such as earthquakes, to identify potential reasons contributing to this disparity. Police stations can enhance their coordination and responsiveness efforts by identifying the particular vulnerabilities present within the community and tailoring their strategies accordingly. Furthermore, the study conducted by Patel, Patel, and Hemani (2016) emphasizes the significance of evaluating coping strategies within communities to mitigate risks through community-based disaster preparedness plans. Differences in the perception of the effectiveness of police stations may contribute to the perception gap. In order to narrow this disparity, police stations can establish cooperative initiatives with local communities to bolster earthquake readiness and promptness, along with the suggestions put forth by Patel et al. These tactics can aid in synchronizing the perceived and actual capacities of police stations regarding coordination and reaction during earthquake occurrences.

In addition, Rao's (2017) focus on the significance of local communities and organizations in disaster management provides helpful direction. Local community engagement in earthquake preparedness initiatives can enhance coordination and responsiveness. Police stations should proactively collaborate with local groups and communities to bolster their capacities and efficiently address any discrepancies in public image. The significance of efficient data collecting and analysis for making well-informed decisions during earthquake responses is

Table 3 depicts the level of earthquake preparedness of selected police stations in Metro Manila as perceived by two groups of respondents in terms of Coordination and Responsiveness. It was prepared with an overall mean of 2.98. It was highly prepared for the PNP with a mean of 3.49 and was less prepared for the Populace with a mean of 2.48. However, all indicators had an interpretation as capable. These were: "Updated earthquake preparedness consciousness drive covering all preventable disasters" had a mean of 3.14; "Maintains an ideal number of police personnel to implement earthquake preparedness program" had 3.11; "Responsiveness of personnel during rescue operation" had 3.02; "Mobilization of personnel during emergency service" had 2.92; and, "The police station is complemented by committed and skilled personnel to conduct rescue" had 2.74.

highlighted by Morris' (2016) research on data gathering during disasters. In order to enhance coordination and promptness, police stations must prioritize the implementation of comprehensive data collection procedures, as emphasized by Morris. This would guarantee their access to precise information, facilitating efficient disaster management. By integrating these observations from the mentioned sources, police stations in Metro Manila can narrow the disparity in perception and improve their coordination and responsiveness in earthquake preparedness, ultimately leading to more efficient disaster response endeavors.

Table 4
Level of Earthquake Preparedness of Selected Police Stations in Metro Manila in terms of Training

Table 4 illustrates the earthquake preparedness of five selected police stations in Metro Manila as perceived by two groups of respondents in terms of Training. It had an interpretation of capable with a mean of 2.98. All indicators were interpreted as prepared as echoed from their corresponding mean. They were: "Sustained training and seminar" had a mean of 3.09; "Pre-earthquake and post-earthquake training pursued" had 3.04; "Knowledge acquired in training is being fully applied" had 2.95; "Updated plan thru conduct of rehearsal and dry run" had 2.86; and, "Personnel are properly trained in responding to earthquake" had 2.84. The Populace said the PNP was capable, with a mean of 2.53, and the PNP group was competent, with a mean of 3.38.



INDICATORS	PNP		Populace		OVERALL	
	Mean	VI	Mean	VI	Mean	VI
Sustained training and seminar	3.62	HP	2.56	P	3.09	P
Updated plan thru the conduct of rehearsal and dry run	3.17	P	2.55	P	2.86	P
Knowledge acquired in training is being fully applied	3.35	HP	2.54	P	2.95	P
Pre-earthquake and post-earthquake training pursued	3.55	HP	2.52	P	3.04	P
Personnel are appropriately trained in responding to earthquake	3.21	P	2.46	LP	2.84	P
OVERALL MEAN	3.38	HP	2.53	P	2.95	P

The evaluation of earthquake readiness among specific police stations in Metro Manila, with regards to training, demonstrates various crucial components emphasized in the mentioned sources. Morris's (2016) research highlights the significance of data collection and analysis, which is strongly linked to the necessity for ongoing training and practice exercises. The strong recognition of ongoing training and seminars (HP) corresponds with Morris's emphasis on collecting dependable data and the necessity of continual education for efficient earthquake response. Nevertheless, the somewhat diminished perception (P) concerning updated plans and the application of information highlights the need to improve training programs to guarantee that they result in practical knowledge and operational preparedness, as emphasized by Morris (2016).

The recommendations provided by FEMA in 2015 about disaster preparedness, which emphasize the importance of public awareness, are relevant to the indicators associated with pre-earthquake and post-earthquake training. The high level of awareness (HP) in this regard implies that police stations acknowledge the significance of educating both their staff and the general public regarding earthquake preparedness by FEMA's guidelines. FEMA's recommendations also stress the need for individuals to receive proper training in earthquake response. Nevertheless, the observed deficiency in the application of

knowledge (P) indicates the need to enhance training outcomes into earthquake response initiatives, consistent with FEMA's emphasis on practical preparedness.

Maskrey (2013) highlights the importance of community-based strategies for reducing disaster risks, aligning with the difference in perception regarding staff training. The average indicates that police personnel have a good impression of their training (HP), whilst the general public has a comparatively lower perception (P). In order to fill this void, police stations might adopt Maskrey's strategy and engage the community in their training endeavors. Maskrey emphasizes that community interaction can improve the effectiveness of training and the application of knowledge, leading to a better understanding of earthquake response and ensuring that workers are properly trained. By integrating these observations, police stations can synchronize their training endeavors with the ideas and principles described in the referenced references, thereby augmenting their earthquake preparedness and capabilities.

Table 5

Test of Significant Difference in the Perceptions between the two groups of respondents on the Earthquake preparedness of selected police stations in Metro Manila in terms of:

Variables	Degree of freedom	Computed t-value	Tabular t-value	Decision
Organization and Planning	8	12.08	2.306	Reject Ho
Resources and Awareness	8	5.713	2.306	Reject Ho
Coordination and Responsiveness	8	5.601	2.306	Reject Ho
Training	8	9.354	2.306	Reject Ho

Table 5 outlined the Significant Difference in the Perceptions between the two groups of respondents on the Earthquake preparedness of selected police stations in Metro Manila in terms of the aforementioned variables. It showed that the computed t-values of all aforementioned variables (Organizing and planning had 12.08; Resources and Logistics had 5.713; Coordination and responsive had 5.601; and Training had 9.354) are all greater than the tabular t-value of 2.306. At 0.05 level of significance and 8 degrees of freedom, reject the null hypothesis. This implied a Significant Difference in the Perceptions between the two groups of respondents on the Earthquake preparedness and capabilities of selected police stations in Metro Manila in terms of the

aforementioned variables. To the PNP, they were prepared but to the Populace, the PNP was less prepared.

CONCLUSIONS AND RECOMMENDATIONS

Practical Implications

Based on the results, it is suggested that certain police stations in Metro Manila prioritize continuous training and education programs for their personnel to improve their readiness for earthquakes. This entails enhancing and modernizing training material to guarantee the efficient application of knowledge in practical earthquake response situations. Furthermore, it is crucial to actively include and interact with local populations in order to close the gap in understanding between police officials and the



general public when it comes to earthquake preparedness. Police stations should provide adequate allocation of resources for transportation, communication systems, and logistical requirements to enhance and maintain their preparedness.

Theoretical Implications

The study highlights the significance of the community-based disaster risk reduction approach, underscoring the necessity of engaging local communities in disaster preparedness endeavors. The favorable perception of consistent training corresponds to the theoretical framework of continuous learning and adaptation in disaster preparedness, emphasizing that disaster preparedness is a dynamic process that necessitates continual education and skill enhancement. The findings further substantiate the actual implementation of principles advocated by organizations such as FEMA, underscoring the significance of converting theoretical knowledge into tangible measures in disaster preparedness endeavors.

Based on the provided data, the following recommendations are proposed:

- Enhanced Training:** Police stations in Metro Manila should prioritize implementing frequent and current training programs to enhance the skills and knowledge of their personnel. The scope of this training will encompass earthquake readiness, response methods, and the efficient collaboration required during emergencies. Furthermore, it is imperative to regularly revise the training material to integrate the most recent advancements in disaster management.
- Community Engagement:** Police stations ought to coordinate community outreach initiatives, seminars, and simulations to enlighten locals on the dangers and appropriate actions to take in the event of an earthquake. This can serve as a means to establish a connection between the police force and the people, promoting collaboration in times of crisis.
- Resource Allocation:** Sufficient resources must be supplied to police stations, encompassing finances for transportation, communication systems, and logistical requirements. This guarantees that law enforcement professionals can promptly and proficiently react during seismic occurrences. Ensuring regular maintenance and testing of communication equipment should be of utmost importance.
- Data Gathering and Analysis:** In order to enhance readiness, law enforcement agencies should give priority to the collection and examination of data. This entails gathering data on seismic activity trends, conducting evaluations of susceptibility, and identifying the individual needs of each community. Accurate data is crucial for making well-informed decisions during disaster response.
- Inter-Agency Collaborations:** As emphasized by FEMA guidelines, collaborative efforts among different agencies should be fostered. Police stations should

actively coordinate with other organizations and authorities involved in disaster management to streamline response efforts and share resources and information.

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INFORMATION COMPETENCIES OF LIFE SCIENCE RESEARCH SCHOLARS OF MIZORAM UNIVERSITY: A CASE STUDY

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ABSTRACT

Purpose: The study tries to reveal the literacy skills of research scholars under school of life science in Mizoram University. **Methodology:** The study is based on empirical study. For collecting data, a close ended questionnaire was framed and distributed among the present research scholars in their respective departments during the field survey. Among those 50 research scholars, 41 responded the questionnaire which is 82% of the total population. To meet the objectives of the present study, a structured questionnaire was circulated to 50 research scholars under school of Life Science. Various e-resources were also consulted for the background of the study. The data collected were analyzed using relevant statistical tools.

Results: From the result of the analysis, majority of the research scholars are from the department of zoology, while the highest response rate is from biotechnology department which is having the least research scholars. Maximum of the research scholars are heavily accessing internet and rely on electronic document but textbook or documentary sources cannot be kept aside in this technological world as number of research scholars are still accessing them.

Applications of this study: The findings of the study can help to cater what types of information sources would be more appropriate and reliable for the research scholars so as to enhance the collection in the central library.

KEY WORDS: Information knowledge, Digital competencies, Documentary and non-documentary

INTRODUCTION

The information competency of a user to the information defines the aspects of user studies where the users make an effort to bring about the interrelationship of various concepts of information relating to their studies. This is a mandatory component irrespective of types of users to search information through literature available whether those literatures are in prints or electronic form or both. It is a recognized mechanism and a technique for searching for information which ultimately leads to derive satisfaction or dissatisfaction among the users (Kumar, 2004). Therefore, the behavioral approach of users with respect to their fields plays a very crucial role in the collection development of the library resources as well.

REVIEW OF LITERTURE

Singh (1997) in the book on 'University libraries: a current appraisal' mentioned about the function of the university library and pointed out that, it is an integral component in the higher education system. She argued that in the absence of proper information and knowledge infrastructure education system cannot sustain and achieve its mission. She further, stated that studying at a university implies enhances the capability to search, evaluate and use relevant information.

Rodriguez and Angelica (2002) on 'The role of university libraries in Latin America in the promotion of democracy and diversity' described need of the diversity of library materials' in the collections. They further viewed that, the main values of librarians is intellectual freedom, free access to information and equity in access. Libraries, in general, promote values. They inferred that, even if one of the main goals of university libraries is to support education and research, it cannot abandon their role as a place where different social policies, theories and ideologies meet. They emphasized on the study of different art and cultural.

Baxter and Marcia (2003) in their paper on 'Identity and Learning: Student Affairs: Role in Transforming Higher Education' identified that self-definition plays a crucial role in complex learning. They viewed that, the article offers a framework for making identity central in learning to promote learning and self-authorship. They mentioned about four examples of this framework in multicultural education, community development, academic advising, and teaching offer student affairs educators a foundation for leading educational transformation.

Mahajan (2005) in her article on 'Academic Libraries in India: A Present-Day Scenario' discussed education which aims to impart knowledge and makes good citizens. She submitted her views



that, libraries are the repositories of knowledge and it forms an integral part of education.

Rao (2009) on the 'Role of University Libraries in the Scholarly Communication System' reported that, owing to technological changes in the information and communication technologies, particularly the Internet, many changes are taking place in the traditional scholarly communication system. He further described the importance and impact of e-journals on academic publishing and the need for universities to adopt 'open access' initiatives and create institutional repositories.

Korobil, Tilikidou and Delistavrou (2006) in their paper on 'Factors that influence the use of library resources by faculty members' pointed out that majority of the faculty of Technical Educational Institution (TEI), Thessaloniki, Greece use fewer e-resources than printed resources for accessing their information needs. Their result shows that the use of e-resources is higher in the School of Business Administration and Economics among those who hold a Ph.D. degree.

SIGNIFICANCE AND SCOPE OF THE STUDY

The study of the library users is becoming more and more pragmatic as it pave the way for the effective and smooth functioning of the library resources. To have a well developed and satisfied the users' requirements, it is necessary to carry out what type of documents the users seek in order to satisfy their information needs. Therefore, sorting out the aspect of the users from different variation and different subject is much necessary to gain the idea and knowledge of what types of information to be collected in the library.

Mizoram University was created by an Act of Parliament (No. 8 of 2000) and it became functional from 2nd July, 2001. It was accredited 'A' grade by NAAC in 2014 and 2019. It was also awarded ISO Certification in 2018. The University was ranked as one of the top 100 Universities in India, assessed by the NIRF rankings from 2016 to 2023 under MHRD. In the Times Higher Education Impact Rankings 2022, Mizoram University secured 1st Rank in North-East Region of India. Mizoram University ranked 1st among the central universities of the North East region by bagging the 13th position in the Indian Institutional Ranking Framework (IIRF) 2023's Top 20 Central Universities category. The University has 39 functioning academic departments offering UG, PG and Ph.D. programmes under 10 Schools of Study.

The study covers the entire research scholars from the three departments viz, Botany -16, Zoology – 21 and Biotechnology -13 which is 50 research scholars in total population under School of Life Science in Mizoram University.

OBJECTIVES OF THE STUDY

1. To evaluate the users' preference on visiting hours of the library.
2. To find out the most used sources of information in the library.
3. To verify the access preferences (documentary or non-documentary) in the library.

METHODOLOGY

The study is based on empirical study. For collecting data, a close ended questionnaire was framed and distributed among the present research scholars in their respective departments during the field survey. Among those 50 research scholars, 41 responded the questionnaire which is 82% of the total population. To meet the objectives of the present study, a structured questionnaire was circulated to 50 research scholars under school of Life Science. Various e-resources were also consulted for the background of the study. The data collected were analyzed using relevant statistical tools.

DATA ANALYSIS AND DISCUSSION

The study covers the total numbers of 50 research scholars from different three departments under School of Life Science and the numbers of respondents were shown in details in Table – 1 below.

Table -1: Total Number of Respondents

Sl.No.	Department	QD	QR	%
1.	Botany	16	13	81
2.	Zoology	21	17	81
3.	Biotechnology	13	11	85
4.	Total	50	41	82

Source: Field Survey

Abb. QD - Questionnaire Distributed, QR – Questionnaire Received

As seen from the Table-1, the respondents from each department have cross over 80% which is sufficient to represent the outcome result for their respective departments. In Botany 13 research scholars out of 16 has responded the questionnaire which is 81% of the population, and in Zoology, 17 out of 21 responded the questionnaire which is also 81% of the population and Biotechnology has the highest response rate which is 85% of the population. So, from the total 50 questionnaire, 41 were received comprising 82% of the total population.

The author has listed the timing of the library visited into four uneven so as to satisfy the target population. Library being approach from different field and corner, therefore it is best to know the most convenient time the user's used the library. The following Table 2 shows the preference and convenient time to visit the library.

Table 2: Convenient Time to Visit the Library

Sl.No.	Time	Botany	%	Zoology	%	Biotechnology	%
1.	Before 10am	3	23	2	12	0	0
2.	10:00am to 2:00pm	7	54	5	29	6	55
3.	2:00pm to 4:00pm	2	15	8	47	2	18
4.	After 4:00pm	1	8	2	12	3	27
	Total	13	100	17	100	11	100

Source: Field Survey



Table-2 shows the convenient time of different departments' research scholars to visit the library. In Botany and Biotechnology department, majority of the research scholars i.e. 54% and 55% respectively prefer or visit the library during 10am to 2pm, while in Zoology department maximum numbers of the research scholars which is 47% of them visited the library during 2pm to 4pm which is found to be their convenient time. So, the convenient time of the research scholars from each department is not the same which is the library has to open a wide hand so as to make the library resources helpful to its users.

It is necessary to question the users what is the most sources used by them so as to satisfy their information needs. Table-3 shows in details the information sources used by the research scholar from each department.

Table-3: Use of Information Sources

Sl.No.	Sources	Botany	Zoology	Biotechnology
1.	Text Book	6 (20%)	12 (24%)	8 (23%)
2.	Electronic Documents	8 (27%)	15 (29%)	11 (31%)
3.	Periodicals, Magazines, Newspapers	9 (30%)	9 (18%)	6 (17%)
4.	Conference/Seminar Proceedings	3 (10%)	7 (14%)	5 (14%)
5.	Theses/Dissertation	4 (13%)	8 (16%)	5 (14%)
	Total	30	51	35

Source: Field Survey, n=116 (30+51+35) N=41 (13+17+11)

The above Table-3 shows the detail of use of information sources by research scholars from different departments. The research scholars in Botany department heavily used periodicals, magazines and newspapers i.e. 30% as their information sources which is followed by electronic documents i.e. 27%. In both Zoology and Biotechnology department, majority of the research scholars i.e. 29% and 31% respectively used electronic documents as their information source which is followed by text book i.e. 24% and 23% respectively. Here, the numbers of respondents have increased because of that research scholars have opted more than one source of information which increased the number of respondents in each department.

To ascertain the documents or materials needed by the library to meet the users' requirement, it is necessary to expose the most preferred search documents from the library users which will be effective for the library staff in promoting their collections. Table-4 display the preferred searching documents by the respective research scholars from each department.

Table-4: Preferred Searching Documents

Sl.No.	Documents	Botany	Zoology	Biotechnology
1.	Textbook	8 (22%)	14 (25%)	9 (20%)
2.	Reference Tools	4 (11%)	5 (9%)	5 (11%)
3.	Retrospective	6 (17%)	8 (15%)	7 (16%)
4.	Current	7 (19%)	11 (20%)	8 (18%)
5.	Bibliographies	2 (6%)	4 (7%)	3 (7%)
6.	Research Reports	4 (11%)	6 (11%)	6 (14%)
7.	Others	5 (14%)	7 (13%)	6 (14%)
	Total	36	55	44

Source: Field Survey, n=135 (36+55+44) N=41 (13+17+11)

As seen from the data, the numbers of respondents have increased due to the research scholars opted for more than one document as their preference. Table-4 shows the detail of research scholars' preference on searching the documents in the library. Text book is the most preferred search document in each department by the research scholars which is 22%, 25% and 20% in Botany, Zoology and Biotechnology respectively. Again, current document is the next most preferred search document in Botany, Zoology and Biotechnology comprising 19%, 20% and 18% respectively. The least preferred search document in each department is Bibliographies which is 6% in Botany and 7% in both Zoology and Biotechnology.

Now a days, we are blending with different kinds of information sources for getting our required information, the sources could be of documentary form as well as non-documentary form. So, to know what to prioritize the collection development of the library material with regards to the information needs by its users, then, it is a must to discover the access preference from the users. Table-5 has shown the access preference in the library by research scholars from different department.

Table-5: Access Preference in the Library

Sl.No.	Access System	Botany	Zoology	Biotechnology
1.	Open System	11 (58%)	14 (54%)	9 (64%)
	1.1 Internet	9 (47%)	11 (42%)	5 (36%)
	1.2 Intranet	2 (11%)	3 (12%)	4 (29%)
2.	Close System	8 (42%)	12 (46%)	5 (36%)
	Total	19	26	14

Source: Field Survey, n=59 (19+26+14) N=41 (13+17+11)

Table-5 has displayed the detail of access preference by the total population from three departments. Here the material to be opted for the respondents was distinguish in two broad systems, one is open system which comprises mostly to the e-resources and the other one is close system which include all the other related documentary forms collected in the library.

It was found from Table-5 that majority of the research scholars from each department preferred to access to internet i.e. 47%, 42% and 36% in Botany, Zoology and Biotechnology respectively. So, it could be concluded that maximum number of the respondents preferred to access to internet than those documentary sources available in the library. This may be due to the study area of the paper that their information needs and access are mostly relying on the internet.

FINDINGS

1. Department of Zoology has the maximum number of research scholars while Biotechnology Department has the least research scholar but has the highest response rate.
2. Research scholars from both Botany and Biotechnology departments most convenient time to visit the library is during 10:00am to 2:00pm while in Zoology department, the most convenient time is 2:00pm to 4:00pm.
3. Electronic document is the most heavily used sources by maximum of the research scholars from each department.



4. Textbook is still leading as their most preferred search document by majority of the respondents.
5. Internet access was heavily preferred by maximum number of the respondent.
6. Majority of the scholars obtained their required information through hybrid mode.

EMPIRICAL BASED SUGGESTIONS

1. Since textbook is still the most favoured search document by the respondents, availability of more numbers of textbook must be given a priority when the library is to be enhanced.
2. Internet must be upgraded for easy accessibility by all scholars. This will enable them to access the required information in a shorter duration and will aid them in saving their time and effort.
3. Since libraries are to be well equip with various search engines, subscription of more numbers of e-applications which are feasible for research is highly recommended.

CONCLUSION

The environment we are living in is an information society and most of the information seekers seek for the types of catching-up information to get their information requirement. Therefore, it is apparent that they are deeply depends on the internet so as to get their needs within a very short time instead of going to the library and systematically search for their desired information. That is why majority of the population were looking forward to the internet to acquire their requirements. Even though internet was heavily used by the research scholars, textbook still plays a very dominant role as we can see from the findings, so the library with regards to its collection development, still needs to pay priority in increasing syllabus-based textbook so as to meet the library users' information need. Nevertheless, majority of the scholars' access internet for acquiring their needs, resources and materials in the library cannot be kept out of hand as it is the place where they can get genuine and authentic information to succor their work.

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THE BENEFITS OF READING: IMPROVING COMMUNICATION SKILLS FOR ENGINEERS

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ABSTRACT

Strong communication abilities are essential for engineers in the modern workforce. Engineers must be adept at explaining complex technical concepts and ideas to diverse audiences, whether writing detailed reports targeted at management and colleagues or giving presentations for public groups. To gain and excel in the engineering field requires having exceptional written, verbal, interpersonal and visual communication skills. However, communication proficiency must be developed; it is not an inherent trait. Just like any talent, competence in communication necessitates cultivation over time. Reading on a consistent basis provides the perfect avenue for engineers to dramatically enhance their communication capacities. Exposure to well-crafted writing affords examples for engineers to follow in their own work, while reading academically rigorous materials intrinsically builds stronger verbal skills over time.

KEYWORDS: *Communication, Reading, Budding Engineers, Augmentation of Vocabulary*

READING BUILDS A STRONG VOCABULARY BASE

One of the primary benefits of consistent reading is the gradual augmentation of vocabulary knowledge. As budding engineering professionals read challenging materials, they continuously encounter new words and terms, especially those utilized in academic and technical writing. For example, reading scholarly articles and industry publications related to mechanical engineering exposes students to field-specific language to describe mechanical systems, equipment, design methods and more that they will one day employ themselves as working engineers.

Absorbing and retaining new vocabulary does more than expand generic knowledge; it provides precision to communicate and understand multifaceted engineering concepts. The lexicon of any engineering discipline is rich and complex. Reading furnishes greater vocabulary depth for comprehending written instructions, technical manuals, analytical reports and theoretical studies. Engineers at software companies who read about advancements in data analytics will cultivate vocabulary around machine learning techniques. Civil engineers reviewing proposals and plans for construction sites build language around zoning policies, permitting, materials, regulatory standards and safety implementation.

Jesiek, B.K., Zhu, Q et al (2011). Developing global competence

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READING STRENGTHENS WRITTEN COMMUNICATION ABILITIES

While engineering work involves designing systems, running experiments and analyzing data, most engineering careers also demand expertise in a critical communication medium – writing. Consulting reports for management, technical write-ups of designs, correspondence with clients, and procedural guides are just a few examples of important written documents engineers prepare.

However, since writing itself is a skill cultivated through practice, reading serves as a fundamental way to develop strong written communication skills. Through consistent exposure to well-structured writing, engineers discern the hallmarks of high-caliber written work, which they can then incorporate into their own drafting. This includes grasping principles of impactful technical writing like clarity, specificity, organization and concision.

Additionally, reading materials on engineering subjects provides current knowledge and learning about contemporary methods and innovations which engineers also communicate through writing. A chemical engineer may read published experiments using nanoparticle technology then needs to describe the technique in a formal report, incorporating explanation of the advanced concept



in clear language. Reading thus builds abilities to elucidate even the most complex technical topics.

Sharples, M., Magnusson, J. et al (2015). Visualization for communication: The importance of genre and skill. IEEE Transactions on Professional Communication, 58(3), 275-286.

READING BOOSTS VERBAL COMMUNICATION CAPABILITIES

While masterful writing is indispensable for engineers, skill in verbal communication is equally crucial. Within careers rooted heavily in mathematical and scientific concepts, engineers must still describe ideas, explain technical elements, discuss designs and give verbal presentations to win support. Client meetings, public forums, conference talks and collaborative work groups are all settings requiring verbal adeptness. Reading intrinsically supports verbal skill development by exposing engineers to well-written academic papers, industry publications and books with sophisticated vocabulary and terminology.

Through repeatedly seeing challenging words in context, reading strengthens abilities to articulate concepts fluently and use technical language accurately in speech. The cognitive link between reading and verbalizing meaning from text translates to verbal coherence.

Furthermore, reading speeds ability to process information then express it verbally by exercising parts of the brain controlling language formulation. A civil engineer reviewing proposed regulations on construction waste removal must later verbally advise contractor clients on policy changes and impact at a consult. Exposure to authoritative ideas also breeds confidence for public speaking. An engineer

Well-read on greenhouse gas emission statistics can ably stand before local governments to recommend municipal climate action policy.

READING FACILITATES GREATER KNOWLEDGE ACQUISITION

Lastly, consistent reading facilitates knowledge acquisition for engineers both through direct learning about technical concepts in field-related academic papers as well as indirectly bolstering retention abilities. Reading scholarly articles introduces emerging engineering ideas that students would not encounter elsewhere like university courses or internships. For example, an electrical engineering student may read recent journal publications about engineers developing sophisticated solar panels integrated into building infrastructure, presenting an opportunity to learn entirely new subject matter.

Indirectly, reading inherently supports memory formation and retention. As the brain interprets text and builds connections between concepts, it strengthens its capacities for inputting, processing, comprehending and recalling information. Engineers

who consistently read challenging materials can thus absorb new knowledge more efficiently during training. They develop abilities to interpret complex charts, graphs and diagrams and establish associations between abstract theories and practical applications. Reading powers mental mapping of interrelated concepts. So beyond direct exposure to innovative ideas, reading continually refines abilities for acquiring knowledge.

READING IMPROVES INTERPERSONAL COMMUNICATION ABILITIES

While written and verbal skills are clearly essential for engineers, reading also assists in developing strong interpersonal communication capacities. Interacting productively face-to-face with colleagues, clients and stakeholders is vital as so much of engineering work involves collaboration. Negotiating project scopes, coordinating team efforts, resolving problems and pitching proposals to prospective partners all require interpersonal fluency.

Reading strengthens interpersonal skills in two key ways. First, exposure to well-written materials covering topics like human behavior, psychology, organizational dynamics and communication fundamentals builds knowledge to leverage. Understanding group dynamics, conflict resolution approaches and setting negotiation tactics allows engineers to effectively interface and socialize concepts. Second, reading inherently builds focus, listening skills and conversational confidence by exercising Concentration and public speaking abilities. An engineer well-read on a innovative construction method can fluidly discuss, actively listen and find common ground with a skeptical client.

ADDITIONAL BENEFITS OF READING FOR ENGINEERS

While communication refinement is arguably the top skill reading imparts, a few additional benefits merit mention. First, reading engineering publications and activity joining book clubs builds networking connections. Second, reading leadership principles strengthens abilities to manage others and projects. Third, reading industry developments keeps engineers atop changing landscape to tailor solutions.

Finally, reading on ethics ensures moral grounding as engineering influence expands.

CONCLUSION

There is no question communication excellence is one of the most fundamental skills determining success within the engineering profession in the 21st century. As the sphere of engineering advances at an exponential rate, spearheading progress requires clear correspondence with diverse organizational and public stakeholders. Professionals must showcase verbal, written and interpersonal skills every bit as developed as technological prowess. Making daily reading a habit provides the perfect training for accelerating communication growth for budding



engineers. Reading introduces vocabulary, information and ideas otherwise inaccessible while inherently exercising cognitive abilities to articulate, explain and contextualize meaning. Just as critically, exposure to well-written materials imprints structural and organizational principles engineers can integrate into their own drafting. Reading material aligned to engineering subject matter has the added benefit of building field knowledge.

In closing, consistent reading has a monumental impact on refining communication skills for engineering professionals. Based on the multitude of structural, informative and intrinsic cognitive benefits reading delivers, I strongly recommend engineering students read academic materials in their discipline for at least 30 minutes every day. Minor time investment in reading will yield outsized skill expansion over their studies and future careers. Even in an age of limitless digital content, reading remains one of the most valuable yet underutilized communication training strategies. Making reading a habit will shape communication excellence for the next generation of engineering trailblazers.

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A STUDY TO ASSESS THE PRACTICE OF NURSING PROCESS APPLICATION IN CRITICAL CARE UNIT, SURGICAL CARE UNIT AND MEDICAL CARE UNIT AMONG STAFF NURSES IN SELECTED HOSPITALS OF JABALPUR CITY

Hina Singh

ABSTRACT

A non experimental research regarding application of nursing process in the critical care unit , surgical care unit and medical care unit was done. The data was collected from 100 staff nurses as subjects working in Jabalpur Hospital And Research Center, Marble City Hospital, City Hospital and Neta Ji Subash Chandra Bose Medical College of Jabalpur City, using random sampling technique for this structured observational checklist was used for collection of necessary data for assessing practice of nursing process. The demographic findings of the study indicated that Most of the subjects were between age group 25-35 , n=41(41%), the sex was female, n =75 (75%), Most of the nurses were B.Sc. nursing professionals n= 45(45%), had experience between 2-5 years n = 31 (31%), attended certification for nursing education, in-service programme or national seminar on nursing process n=60 (60%),worked in the critical care unit n= 34 (34%) surgical care unit n=33 (33%) medical care unit n=33(33%)and were from private hospital n=56 (56%). The finding related to application of nursing process by 100 staff nurses revealed that the majority of nurses practicing nursing assessment was non satisfactory n=42(42%) ,the maximum practice of nursing diagnosis was non satisfactory n=75(75%),the maximum practice of outcome identification was non satisfactory n=73(73%),the maximum practice of planning was non satisfactory n=52(52%), the maximum practice of implementation was non satisfactory n=52(52%), the maximum practice of evaluation was non satisfactory n=73(73%). Hence, the practice of nursing process was not satisfactory the hypothesis was rejected and null hypothesis accepted. It is imperative for nursing personnel working in the critical care unit, surgical care unit, medical care unit to provide quality and standardized pattern of care to the patient. The study also have implications in the field of nursing education, nursing administration, nursing research, and nursing process.

KEYWORDS: Practice of Nursing Process, Application of Nursing Process, Critical Care Unit , Medical Care Unit, Surgical Care Unit, India

INTRODUCTION

The Nursing Process is the procedure nurses use to manage patient care. This process is the basis of how nurses think and operate in clinical patient care. It becomes engrained in their subconscious rather than being a checklist that they go through with each patient. It involves several distinct steps, including:

NURSING ASSESSMENT : During this phase of the nursing process, nurses collect information about their patients. Information may be objective or subjective in nature. For example, nurses may collect quantitative measures of the patient's vital signs, along with a subjective report of the patient's current symptoms. In addition to information that is directly related to the patient's health, nurses should also pay attention to economic, spiritual, sociocultural and psychological characteristics when assessing the condition of a patient

NURSING DIAGNOSIS AND EXPECTED OUTCOME: After collecting data, the nurse must organize and interpret the information. The primary goal during this part of the process is to

establish a nursing diagnosis or modify an existing diagnosis of the patient's health conditions or needs. Once a diagnosis has been established or modified, the nurse should also report this information to other members of the health care team.

PLANNING: During the planning stage of the nursing process, the nurse uses information collected during assessment, as well as the current nursing diagnosis, to establish short-term and long-term goals for patient care. All of this information is recorded into a written plan that all members of the healthcare team can access.

IMPLEMENTATION: Once a plan for patient care has been established, the nurse can provide care to the patient in accordance with the plan. All care provided should be documented in the patient's record for later review

EVALUATION : Throughout the duration of the nurse's relationship with the patient, they should continually evaluate the patient's health status. The effectiveness of the patient's current plan for care should also be reevaluated on a regular basis.



When necessary, the nurse should modify the patient's care plan and report the changes to all members of the healthcare team. According to current American and Canadian Practice Standards, nursing practice demands the efficient use of the nursing process and professional participation in activities that contribute to the permanent development of knowledge about this methodology.

There is a demand to establish the nursing process in practical care in every health institution, within hospitals as well as in the community as a whole. The nursing process should be established in care practice at all health care institutions, in hospitals as well as in the community as a whole. In practice, however, not all steps are systematically implemented. Studies have revealed difficulties in establishing and using the nursing process within institutions during the last years.

MATERIAL AND METHOD USED

Setting of the study: this study was conducted in Marble City Hospital, Netaji Subhash Chandra Bose Medical College and City Hospital and Jabapur Hospital and Research Center Of Jabalpur City. The accessible population of the present study includes the critical care unit nurses, medical care unit nurses and surgical care unit nurses of the selected hospitals of Jabalpur city total 100 nurses were found from three hospitals.

Study Approach, Study Design, Sampling Procedure : Research approach used in this present study is Evaluative Research Approach. In this study Simple Random Sampling Techniques was used to select the samples. In this study the sample comprises of 100 staff nurses working in critical care unit, medical care unit and surgical care unit of selected hospitals of Jabalpur city

Ethical consideration: letters were obtained from Jabalpur Institute of Nursing Science and Research Hitkarini Sabha, Letter for cooperation from each hospital was obtained; verbal consent was obtained from each nurse for participation in the study. Privacy and confidentiality were ensured during the interview, and name and address of the interviewee were not recorded in the questionnaire.

RESULT

SECTION I : deals with finding demographic data of 100 staff nurses

Demographic variable In The present study results revealed that out of 100 staff nurse the majority of the subjects 41 (41%) were in age group between 25-35 years.(75%) of staff nurses were female, While in the present study 46% of professionally qualified staff nurses were GNM , the majority of work experiences of nurses were 31% which is between 2-5 years In present study the majority of 60% of staff nurses have attended certification for nursing education, in-service programme on nursing process and majority of 34% nurses were working in the critical care unit area and 56% were an employee of private hospital and (30.5%) of the respondents have been working at the medical ward at the time of the study.

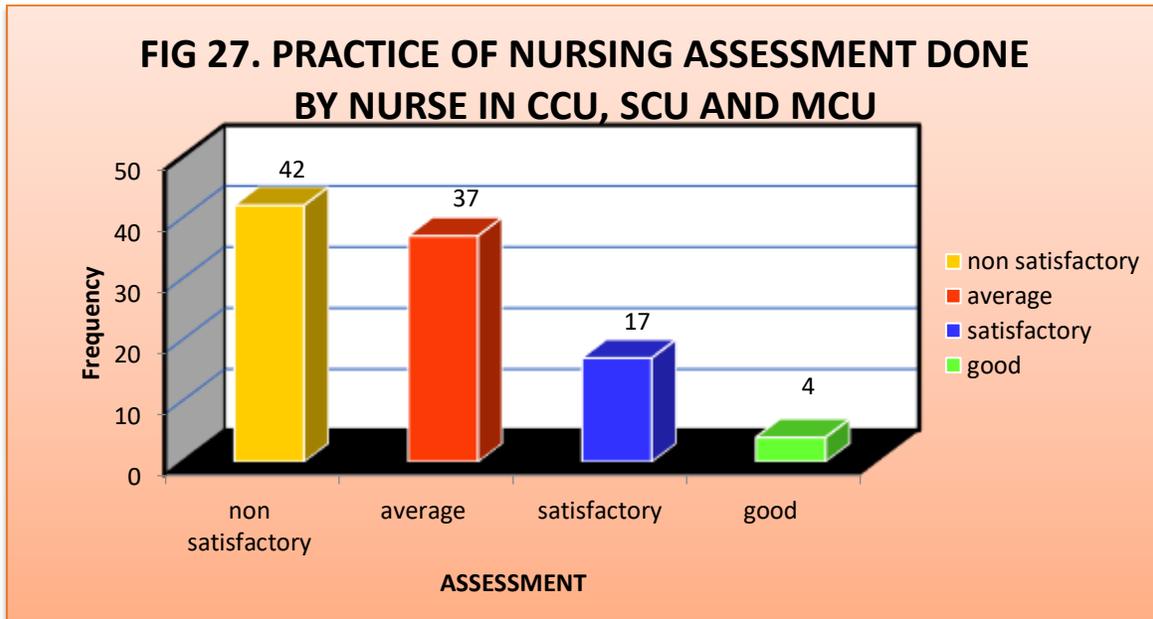
SECTION II: deals with the analysis of the data related to practice of nursing process among 34 staff nurses in the critical care unit. In the **critical care unit** the practice of nursing process there was 56.37% of non-satisfactory practice, 27.45% was average only 12.74% was satisfactory practice and 2.94% was good practice

SECTION III : deals with the analysis of the data related to practice of nursing process among 33 staff nurses in the Surgical Care Unit.

In the **surgical care unit** the practice of nursing process application 63.13% had non-satisfactory practice while 24.24% were having average practice and 11.11% nurse were only having satisfactory practice and 1.51% were having good practice

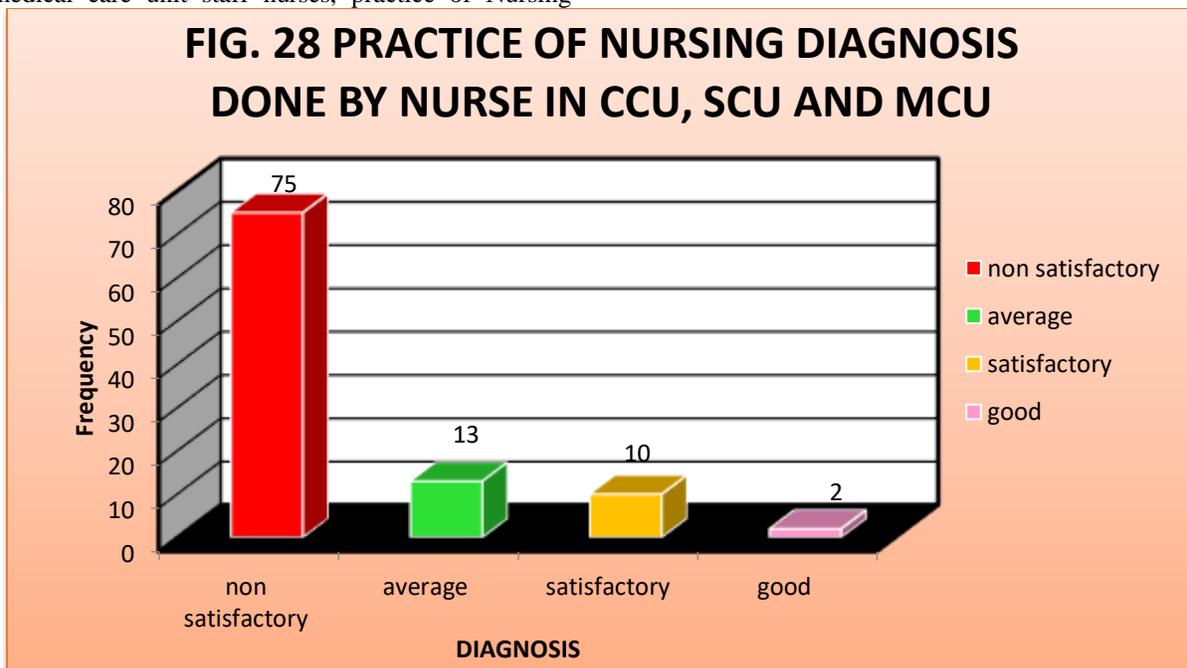
SECTION IV deals with the analysis of the data related to practice of nursing process among 33 staff nurses in the medical care unit. In the **medical care unit** the practice of nursing process application 64.14% had non-satisfactory practice, 23.73% were having average practice while 11.11% were having satisfactory practice and 1.01% were only having good practice.

SECTION V : Deals with the analysis of the data related to practice of nursing process among 100 staff nurses in the critical care unit, surgical care unit and medical care unit



The findings of the present study revealed that out of 34 critical care unit staff nurses, **in the practice of Nursing Assessment** 16(47%) was averagely performed and 8(24%) of practice was non-satisfactory and good was barely 1(3%). Among 33 surgical care unit and medical care unit staff nurses, practice of Nursing

assessment was average i.e. 17(51.51%) and non-satisfactory was 23(70%), good practice of nursing assessment was 2(6%) but in medical care unit it was only 1(3%).

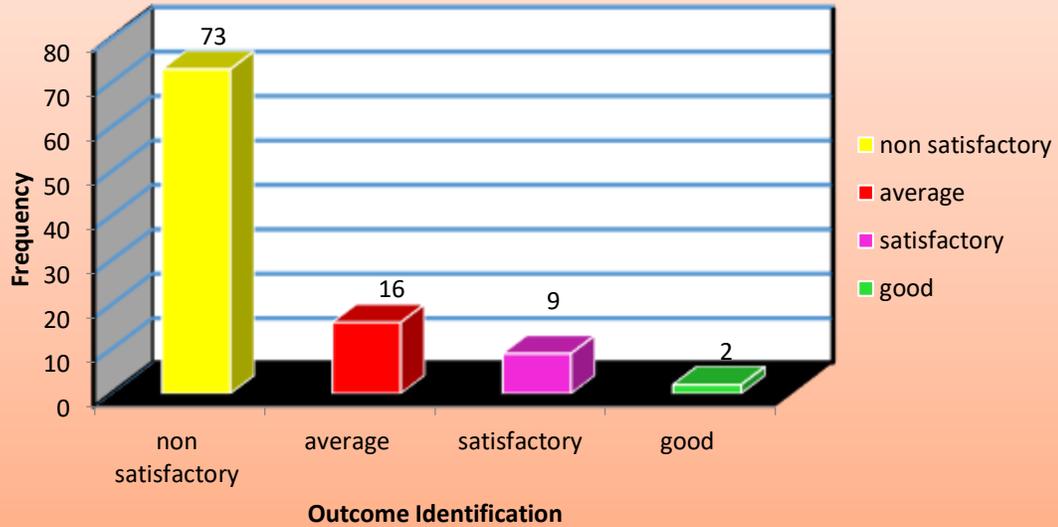


In the practice of Nursing Diagnosis :The findings of the present study revealed that out of 34 staff nurses in critical care unit, practice of nursing diagnosis was 28(82%) i.e non-satisfactory, and among 33 surgical care unit and medical care unit staff nurses, practice of diagnosis 24 (72.7%) and 23(69.69%) was

non-satisfactory which showed that the nurse did not derived diagnosis from assessment data, the actual and potential risk of the patient were not considered there was no use of standardized classification system, there was no documentation and practice of diagnosis by nurse.



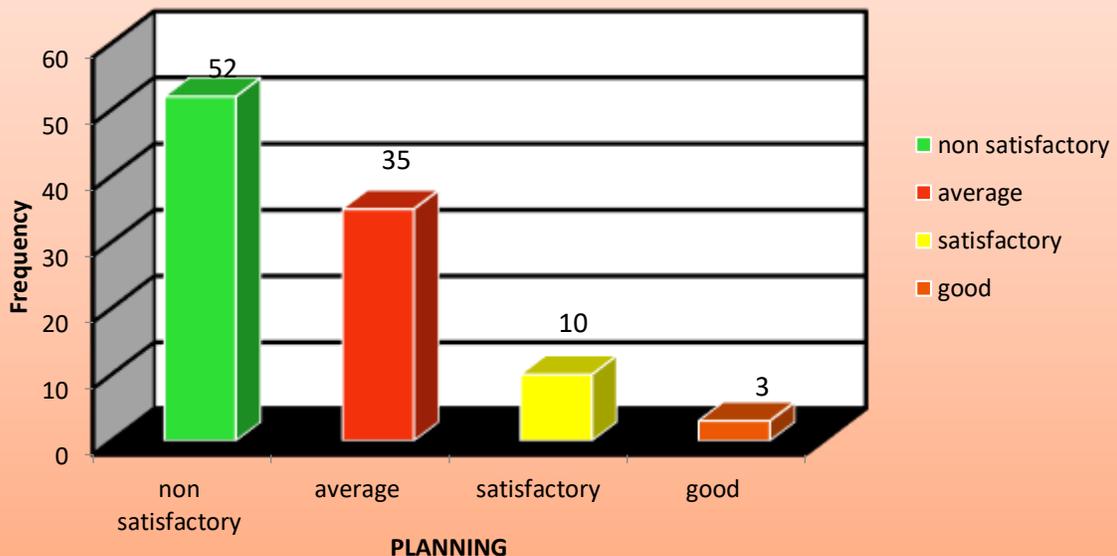
FIG. 29 PRACTICE OF OUTCOME IDENTIFICATION BY NURSE IN CCU, SCU, AND MCU



The findings of the present study on **expected outcome** practiced by staff nurse revealed that out of 34 staff nurses in critical care unit, 20(58.82%) were non-satisfactory among 33 staff nurses of surgical care unit and medical care unit revealed that the practice

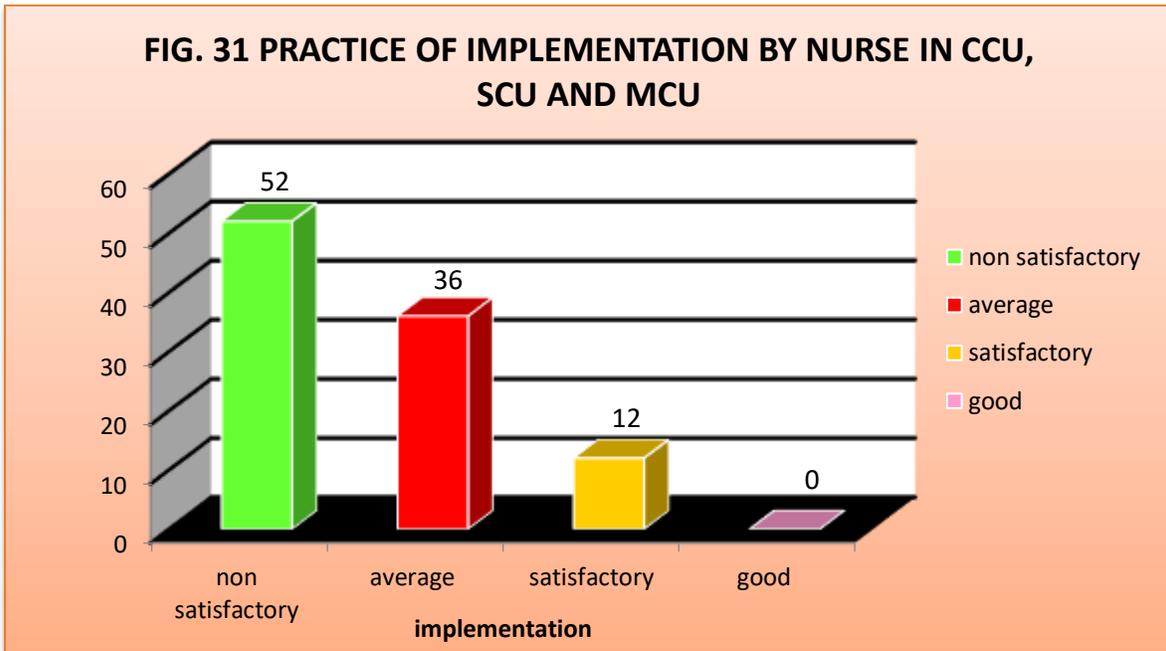
of expected outcome by the staff nurse was non-satisfactory i.e 26(78.78%) and 27(81.81%).

FIG. 30 PRACTICE OF PLANNING BY NURSE IN CCU, SCU AND MCU



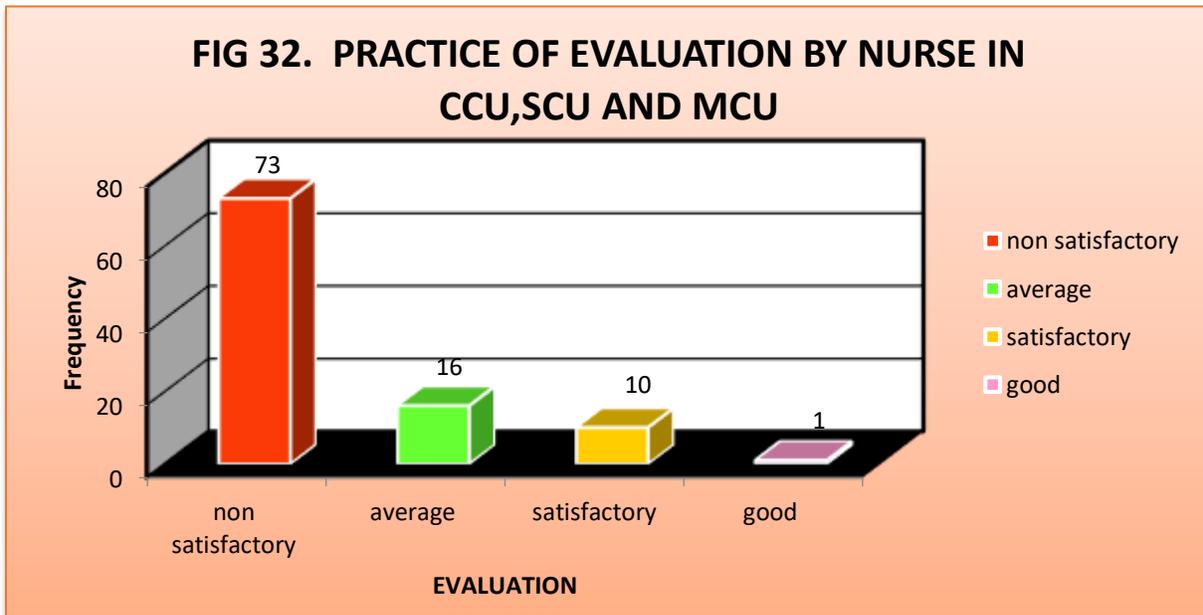
In the nursing process the practice of Nursing **Planning** the present study revealed that out of 34 staff nurses, practice of planning by the staff nurse in critical care unit, was non-satisfactory i.e 16(47.05%) among 33 staff nurses in surgical care

unit and medical care unit was 21(63.63%) and 15 (45.45%) practice of nursing planning was non-satisfactory



The findings of present study revealed that out of 34 staff nurses, **Practice of Implementation** in critical care unit, was non-satisfactory 23(67.64%), and the findings among 33 staff nurses,

practice of implementation by the staff nurse in surgical care unit and medical care unit 17 (51.51%) and 12 (36.36%) was non-satisfactory.



The finding of the present study shows the practice of **Evaluation** revealed that out of 34 critical care nurses staff nurses, practice of evaluation was non-satisfactory 20(58.82%) among 33 staff nurses in surgical care unit and medical care unit staff nurses , practice of evaluation was 26 (78.78%) and 27 (81.81%) which was non-satisfactory.

not apply nursing process into practice there was no good practice of nursing process the practice was non satisfactory in all the care units.

Section VI It deals with the association of the practice score of nursing process with selected demographic variables using the “Chi Square” test for association.

The study shows that most of the demographic variables indicate **most-significant** relationship with practice score such as age in

The staff nurses working in the critical care unit, surgical care unit and medical care unit of the selected hospitals in Jabalpur city did



years, total work experience. Some variables indicates **significant** relation with practice score such as professional qualification, attendance of certification or in-service programme on nursing process and nurse is an employee of. Some variables indicate **not-significant** relations with practice such as sex and area of working.

Age in years and practice of nursing process In the present study The P value of assessment, diagnosis, expected outcome, planning, implementation, evaluation is $P=0$ which is most significant at 0.05 level.

Sex and practice of staff nurse The present Study shows that The p value for sex in assessment 0.28, diagnosis 0.308, expected outcome 0.2793, planning 0.294, implementation 0.2793, evaluation which is not significant at 0.05 level. **Eneida Rejane Rabelo** study describes Nurses' practice toward the nursing process the female students had more positive attitudes than male students regarding the ability to use the nursing process in providing high-quality caring.

Professional qualification and practice of staff nurse The present Study shows there is significant relationship with professional qualification and practice of nursing process of staff nurse. The P value for professional qualification in assessment (, diagnosis (48.84), expected outcome (44.29), planning (46.62), implementation (44.28), and evaluation (48.95) which is significant at 0.05 level. **Angelita Paganin Costanzi** study showed that the practice of the respondents on nursing process has a significant relationship with their educational status. Compared to the practice of diploma nurses, the practice of B.Sc nurses on nursing process is higher by about 11.5 times.

Work Experience and practice of staff nurse The present Study shows that there is most significant relationship with work experience and practice. The Chi square value for work experience in assessment 139.3, diagnosis (153.2), expected outcome (138), planning (146.2), implementation (138.9), evaluation (153.5) which is most significant at 0.05 level.

In-service education attended by staff nurse and practice of staff nurse: The Present study shows that there is significant relationship between in-service education attended by staff nurses and practice. The Chi square value assessment (9.4), diagnosis (10.34), expected outcome (93.76), planning (98.7), implementation (93.76), evaluation (103.6) is significant at 0.05 level.

Area of working and practice of staff nurses Study shows that there is no significant relationship between area of working and practice of staff nurses. The Chi square value for area of working in is assessment (9.5) diagnosis (10.45), expected outcome (9.023), planning (9.5), implementation (9.02), evaluation (9.97) which is not significant at 0.05 level.

Employment of nurse and practice of staff nurse

The present study shows that there is significant relationship between employment of nurse and practice of nurse. The Chi square value of assessment 21.3, diagnosis (23.43), expected outcome (20.23), planning (21.3), implementation (20.23), evaluation (22.36) which is significant for employment of nurse at 0.05 level.

Most nursing students (80%) believed that nursing process was able to uniquely define nursing actions and presented an appropriate practice in the units. However, only 50% of students thought that using the nursing process is only a way for providing nursing cares. In the viewpoints of 14% of students, nursing cares on nursing process can be very difficult

CONCLUSION OF THE DATA ANALYSIS

- ✓ Hence, there was significant association between practice score of nursing process with selected demographic variables, thus H1 there will be significant association between practice score of nursing process application with selected demographic variables.
- ✓ Hence the practice score of nursing process in the critical care unit was non satisfactory, thus H2 There will be satisfactory practice score of nursing process in the critical care unit was rejected and null hypothesis was accepted
- ✓ Hence the practice score of nursing process in the surgical care unit was non satisfactory, thus H3 There will be satisfactory practice score of nursing process in the surgical care unit was rejected and null hypothesis was accepted
- ✓ Hence the practice score of nursing process in the medical care unit was non satisfactory, thus H4 There will be satisfactory practice score of nursing process in the medical care unit was rejected and null hypothesis was accepted

CONCLUSION

A quantitative study with an exploratory, descriptive and contextual design was conducted on the nursing process as a means of improving patient care using random sampling technique whereby every second element in the total nursing staff list was randomly chosen by opportunity to select 100 nurses who had clinical work experience in a particular hospitals. The nurses were requested to complete a questionnaire to assess their understanding and utilization of the nursing process, nursing care plans and nursing documentation.

A response rate of 100% was acquired. Uncertainties and difficulties in understanding and implementing the steps of the nursing process were expressed. Major problems focused on the level of understanding of the nursing process particularly on formulating the nursing diagnoses and goals, the need for evaluation and re-assessment of patients were required and the effect of high patient loads and limited time on the implementation of the nursing process. The research findings indicated that most of the subjects had inadequate practice of the



nursing process and they may also lack practical skills. It is therefore recommended that in-service training on the nursing process and the implementation therefore be done to improve the quality of nursing care. This should be combined with supportive supervision by qualified nurses. Nurses noted that lack of staff and heavy workload may interfere with the use of nursing care plans.

The objectives of the study were met in that the respondents' understanding of the nursing process and its value was assessed, the extent to which they were comfortable and skilled in developing and implementing nursing care plans was determined and their views about documentation were ascertained. The findings enabled a better understanding of the limitations nurses experience in the implementation of the nursing process, which will allow for remedial action to support and enable the nurses working in the specific hospitals. Recommendations were made for a specific training programme focused on all facets of the nursing process. Hopefully, implementation of this training programme will build the knowledge and confidence of nurses in applying the nursing process which will be to the advantage of the patients as the quality of patient care should improve.

There were 100 subjects included in this study. The majority of nurses practicing nursing assessment was non satisfactory n=42(42%), the maximum practice of nursing diagnosis was non satisfactory is n=75(75%), the maximum practice of outcome identification was non satisfactory is n=73(73%), the maximum practice of planning was non satisfactory n=52(52%), the maximum practice of implementation was non satisfactory n=52(52%), the maximum practice of evaluation was non satisfactory n=73(73%).

Socio demographic variables: out of 100 samples 41(41%) were in the age group between 25-35 years. 75(75%) were females. 45(45%) were bachelor in nursing science 31(31%) were having experience between 2-5 years. 60 (60%) have attended certification for nursing education, in-service programme or national seminar on nursing process. 34(34%) of the nurses worked in the critical care unit. 65(56%) of the nurses were from private hospital.

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A PORTRAYAL OF PHILIPPINE NATIONAL IDENTITY VIA PRESIDENTIAL INAUGURAL ADDRESSES: A CRITICAL DISCOURSE ANALYSIS

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ABSTRACT

This qualitative research inquiry employing critical discourse analysis sought to unveil the discursive strategies, linguistic realizations, major thematic contents, and political ideologies from the eight presidential inaugural addresses of the Philippine Fifth Republic. Using Wodak's Discourse-Historical Approach, the study revealed that the discursive macro-strategies of construction, perpetuation, justification, transformation, and demontage, along with specific micro-strategies for each, were analyzed through a variety of linguistic realizations for the discursive construction of the Philippine national identity. The facets of identity discursively constructed in the addresses are the stability of Philippine Autonomy; the fallibility of Philippine integrity; the pursuit for Philippine moral imperative and national advancement; the Philippine historical uprising; the Philippine people power revolution; the political stance of the Philippines; the growth endeavor of the Philippines; and the global connections of the Philippines. Facets of Philippine national identity were also discursively influenced by five emergent political ideologies of liberal democracy, social democracy, patriotism, pacifism, and globalism. Implications for educational practice may be integrated into multiple academic domains such as the humanities, social sciences, politics and governance, and language and communication.

KEYWORDS: *Applied linguistics, education, critical discourse analysis, discourse-historical approach, discursive strategies, linguistic realizations, thematic contents, political ideologies, Philippines*

INTRODUCTION

A particular political speech that serves as a ceremonial transition for an elected president is the first speech written for and delivered during inauguration. The inaugural address, as asserted by Palmadessa (2014), is focused on establishing rapport with the governed public as "the people" as it provides the milieu for democratic fervor and national identity. The significance of presidential speeches, as emphasized by Beglerovic (2020) is that they often tend to illuminate the conception of a national identity. However, Mulders (2012) argued that while political discourses account for presidential virtuous objectives, these eventually end up in naught. The interpretation of a national identity, described by Zulueta (2014), generally lies within the perspective of the powerful elites, thus leaving the vast majority of the population left out. With construction of national identities at present in a state of profound crisis as socio-economic, political problems increase, Zotzmann and O'Regan (2016) believed that the notions of identity construction and meaning-making process have collided with academic inquiry. Yet there is dearth in this area as Ar (2018) asserted that despite general exploration of the relationship between discourse and identity in academic literature, critical inquiry on the constitutive role of discourse in national identity construction has only been given limited interest.

As stipulated in the 2007 Executive Policy Brief of the National Defense College of the Philippines, "the quest for national identity is an imperative to building a strong national community." Over centuries, endeavors towards a standardized Philippine national identity ensued a structure of both feat and ruin, that led Kaufman (2013) to believe such collective identity has remained relatively weak through time. Moreover, Masigan (2019) observed that in the last [five] years, not a single organized national campaign fortifying the Philippine national identity was crafted. This highlights the crisis posed by Mulders (2013) on the deficient influence of Philippine national identity and insufficient adherence to Filipino nationhood which stemmed from the failure of the state "to mold the population into an encompassing moral order in which people can distinctly imagine that they belong together."

Chung and Park (2010) emphasized that a presidential inaugural address reflects an increasingly important aspect of political communication. Despite not an actual state requirement by either constitution or law, Velez (2022) argued that such discourse is a preserved portion of historical record by which every president's word will echo as a reflection of themselves throughout their presidency and beyond. Pagliarini (2011) posited that citizens of any government anticipate the outline of a president's perspective for their executive term. Mohammadi (2009) related that an inaugural address plays both persuasive and manipulative functions, as the newly-elected



president would be persuading for cooperation then convincing the audience of making the right choice.

Critical discourse studies on the construction of national identity through political speeches have just been recently underway and are therefore relatively sparse. For instance, Ar (2018) looked into the discursive construction of Chinese identity through Premier Wen Jiabao's speeches; Gyuró (2015) delved into the discursive construction of American identity using Senator Obama's acceptance speech; while Wang (2011) probed the discursive construction of Philippine national identity through online articles from newspaper websites and blogs. Similarly, there are a few studies employing critical discourse analysis of presidential inaugural addresses with emphasis on the investigation of political ideologies, such as the studies of Costales (2021) and Rubic-Remorosa (2018) in the Philippine setting. However, such articles along with others employed either Fairclough's or van Dijk's stances on critical discourse analysis. Studies following Wodak's (2009) Discourse-Historical Approach to analyze political discourses are fairly scant. To wit, in the ASEAN context is the inquiry done by Hsu et al. (2022) on Taiwanese presidential inaugural addresses. In the Middle East, Adel (2020) explored selected speeches of Egyptian President Mubarak and former Lebanese Prime Minister Hariri. In the Western milieu, Ali and Ibrahim (2020) studied American President Trump's inaugural address.

It is quite evident that while a critical discourse analysis on the discursive construction of Philippine national identity has been previously done by Wang (2011), inquiry on Philippine national identity applying Wodak's (2009) theoretical and methodological framework has not been done, specifically utilizing presidential inaugural addresses. This present study endeavored to address such research gap, contribute fundamental findings to the literature of Philippine national identity construction, and promote appreciation of our historical-political past. It is the researcher's definitive goal to have this study shared in the academia. While it may not merit direct policy-implementation, it may be used as reference for related course topics. Moreover, the researcher envisioned to advocate this study in future international research forums for presentation and publication.

OBJECTIVES

This qualitative study employing critical discourse analysis intended to analyze the portrayal of the Philippine national identity via eight presidential inaugural addresses delivered by the seven Fifth Republic presidents from 1986 to 2022. Specifically, it sought to answer the following questions:

1. What discursive strategies and linguistic realizations are found in the presidential inaugural addresses?
2. How is the Philippine national identity constructed in the presidential inaugural addresses?
3. How do the emerging political ideologies in the presidential inaugural addresses influence the construction of the Philippine national identity?

METHODS

This study employed a qualitative research design employing Critical Discourse Analysis, specifically Wodak's (2009) Discourse-Historical Approach that focuses on the

investigation of historical, organizational, and political discourses integrating social theories to explain the context of such discursive event. CDA - DHA was essential in the analysis of how discursive strategies, linguistic realizations, major thematic contents, and political ideologies present in the presidential inaugural addresses influenced the portrayal of the Philippine national identity.

RESULTS AND DISCUSSIONS

Discursive Strategies and Linguistic Realizations

In the discursive construction of a national identity, five macro-strategies correspond to main social macro-functions in discourse, namely: construction, perpetuation, justification, transformation, and demontage. Every discursive macro-strategy is constituted by specific micro-strategies with corresponding linguistic realizations reflected in certain excerpts from the corpora (Wodak et al., 2009). The following strategies and linguistic realizations were evident in the presidential inaugural addresses:

Discursive Strategy of Construction and Linguistic Realizations

This centers on the establishment of the Philippine national identity through unification, identification, and solidarity among Filipinos, as well as their differentiation from other nationalities.

Assimilation, Inclusion, and Continuation. This presupposes intra-national sameness through lexemes with levelling components, referential assimilation through toponyms, and referential assimilation through realizations as tropes via metonymy and via personification. Moreover, it also emphasizes positive political continuity within the national level and the negation of an alleged discontinuity manifested in referential vagueness through personal pronouns, spatial reference through persons and toponyms, proper names interpreted as indicating Filipino descent, and parallelisms.

Singularization. This emphasizes national positive uniqueness and national model character evident in lexemes with semantic components constructing singularity and individualization, hyperboles, miranda and positively connotated contributions, and parallelisms.

Autonomization. This emphasizes national autonomy and independence in the establishment of a national identity evident in lexemes with semantic components constructing autonomy.

Unification and Cohesivization. This highlights unifying common features and shared sorrows or worries, and the will to unify, cooperate, and show solidarity. These were evident through appeals for cooperation, pulling together, and solidarity, and idiomatic metaphors. This also emphasizes national model character reflected in emphatic parallelisms, and accentuates unificatory warnings against the loss of national autonomy and uniqueness mirrored through fictitious, threatening scenarios.

Dissimilation or Exclusion and Discontinuation. This emphasizes state-internal and state-external inter-national differences and either the discontinuation or emphasis on a



difference between then and now. These were exhibited in referential dissimilation and exclusion through personal and spatial reference via demonstrative and personal pronouns, and dissimilative sociative formations.

Discursive Strategy of Perpetuation and Linguistic Realizations

This aims to maintain or reproduce a threatened national identity to preserve and protect it.

Positive Self-Presentation or Strategy of Calming Down. This emphasizes affirmative image-building to maintain a national identity, manifested through the use of miranda or positive attributions.

Continuation. This presupposes positive political continuity such as a link to a model character of presumed “founding fathers”, apparent in particles creating continuity and in explicit comparisons.

Discursive Strategy of Justification and Linguistic Realizations

This endeavors to justify or relativize a societal *status quo ante* accentuating the legitimacy of past acts of the ‘own’ national ‘we’-group put into question; restore, maintain, and defend a common national self-perception tainted in one way or another; and highlights problematic actions or events in the past that are deemed important in the narrative creation of national history.

Shift of Blame and Responsibility. This makes use of the strategy of scapegoating illustrated through parallelisms and the use of both analogy and story.

Downplaying or Trivialization. This emphasizes avoidance and euphemizing in reference to the linguistic representations of responsible social actors or to the representation of negative actions and events, manifested through euphemistic verbs obscuring agents.

Legitimation or Delegitimation. This was achieved through the use of direct quotations.

Discursive Strategy of Transformation and Linguistic Realizations

This aims to transform a relatively well-established national identity and its components into another identity already conceptualized, often effected by applying subtle rhetorical persuasion.

Possible Positive Self-Presentation. This emphasizes the Philippines’ possible model character for Southeast Asia as a way of setting an example for others, illustrated through miranda or high-value words as a positive attribution.

Discontinuation or Dissimilation. This emphasizes the difference between the past and present, as well as emphasis on the necessary difference between the present and the future as observed in the use of suggestive rhetorical questions, metaphors, and normative-deontic modals.

Devaluation/Negative Connotation of Political Continuation and Positive Connotation of Gradual or Abrupt Change/Transformation. This asserts something as obsolete and emphasizes the model character of the ‘founding generation’ and their courageous and spontaneous attitude to change, evident in negatively connotated metaphors, and positively and negatively connotated metaphors.

Vitalization. This endows an abstract notion with life, achieved through positively connotated personifications, house metaphors, and path or crossroad metaphors.

Discursive Strategy of Demontage and Linguistic Realizations

This aims to dismantle or disparage parts of an existing national identity construct. However, this macro-strategy usually cannot provide any new model to replace the old one.

Discrediting Opponents or Certain Pillars of Identity. This refers to portrayals in black and white which was achieved through derogatory metaphors.

Negative Presentation of Self or Others. This emphasizes negative national uniqueness which was illustrated through anti-miranda or pejorative attributions.

Cassandra Strategy. This alludes threats of disaster that dismantle notions of a national identity. Similar to the negative presentation of self or others, this was evident in statements that made use of anti-miranda and pejorative attributions.

Discursive Construction of the Philippine National Identity

All five macro-strategies of construction, perpetuation, justification, transformation, and demontage were used in the discursive construction of the different facets. However, not all five are evident in each as some are not relevant in a specific facet. Each of these macro-strategies are distinguished by particular micro-strategies which also have corresponding linguistic realizations.

Discursive Construction of the Philippine *Homo Nationalis*

Directed towards the elucidation of emotional attachment and national mentality of Filipinos to the Philippines as their country and their supposed national behavioral dispositions, three facets of the Philippine *Homo Nationalis* were discursively constructed that encompass nationalistic outlook and behavioral temperaments on issues of national interest, and collective duties and hopes as citizens.

The Stability of Philippine Autonomy

Four macro-strategies factored in the discursive construction of the stability of Philippine autonomy. First, the strategy of construction was embodied in four micro-strategies and their relative linguistic realizations. The first micro-strategy *assimilation, inclusion, and continuation* was linguistically realized through personal pronouns and proper names indicating Filipino descent. The second micro-strategy *singularization* was evident in hyperboles, miranda, and positively connotated attributions. The third micro-strategy *autonomization* was manifested in lexemes with semantic components constructing autonomy. The fourth micro-strategy



unification and cohesivization was reflected in emphatic parallelisms, and fictitious threatening scenarios. Second, the strategy of perpetuation evident in the micro-strategy *positive self-presentation* was linguistically realized in miranda and positive attributions. Third, the strategy of justification evident in the micro-strategy *legitimation or delegitimation* was linguistically realized through direct quotations. Lastly, the strategy of transformation evident in the micro-strategy *vitalization* was linguistically realized through positively connotated personifications and house metaphors.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction, perpetuation, and transformation in the discursive construction of the Kurdish national identity. Likewise, the study of Fulling (2009) showed strategies of perpetuation and justification in the quotes found in the programs and pamphlets of Dutch political parties. Similarly, the studies of Adekoya (2018) and Beglerovic (2020) exposed strategy of construction in the political discourses of three Nigerian leaders, and strategy of transformation in the presidential political rhetoric that discursively modified the Bosnia and Herzegovina national identity, respectively. Moreover, the results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Linguistic realizations for strategy of construction were evident in Alavidze (2017) for personal pronouns, van Dongen et al. (2020) and Rutkowski and Skowronek (2019) for proper names indicating national descent, Byalkivska and Piddema (2015) and Irawan et al. (2022) for hyperbole, Foldvary (2011) and Costales (2021) for lexemes with semantic components constructing autonomy, Akinseye (2023) and Akinwotu (2016) for emphatic parallelisms, and Sahen and Abdulkadhim (2020) and Schiller (2019) for fictitious threatening scenarios. Miranda and positive attributions for strategy of perpetuation were evident in Keelan (2022) and Grichenko and Gushchina (2021). Direct quotations for strategy of justification were evident in Dumitrescu and Ross (2020) and Kuo (2001). Lastly, positively connotated personifications and house metaphor for strategy of transformation were evident in Borčić, et al. (2016) and Sadeq (2019), and in Tian (2020) and Vivian (2018), respectively.

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the stability of Philippine autonomy was discursively constructed as part of the Philippine *homo nationalis* of the Philippine national identity. Excerpts for construction focused on the necessity for national unity in order to re-establish and maintain the Filipino mentality of a stable national autonomy. They revealed the uniqueness of the Philippines as an independent republic in Asia that must be maintained from one administration to another. Excerpts for perpetuation highlighted the distinctiveness of the Philippines and the mentality and behavioral dispositions of the Filipinos being capable of excelling globally. Excerpts for justification revealed the essence of the past as contributing factors that uplift the Filipino mentality to be more committed to the common cause of achieving a collective identity. Lastly, excerpts for transformation evoked a sense of commitment to

learn from what happened in the past but also to work optimistically towards a better future as one nation.

The Fallibility of Philippine Integrity

Four macro-strategies factored in the discursive construction of the fallibility of Philippine integrity. First, the strategy of construction evident in the micro-strategy *assimilation, inclusion, and continuation* was linguistically realized in personal pronouns. Second, the strategy of justification in the micro-strategy *shift of blame and responsibility* was linguistically realized through analogies and stories. Third, the strategy of transformation evident in the micro-strategy *devaluation/negative connotation of political continuation and positive connotation of gradual or abrupt change/transformation* was linguistically realized through negatively connotated metaphors. Lastly, the strategy of demontage evident in the micro-strategy *negative presentation of self or others* was linguistically realized in anti-miranda and pejorative attributions.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction and transformation in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategies of construction and demontage in the political discourses of three Nigerian leaders. On the other hand, the study of Beglerovic (2020) indicated strategies of transformation and demontage in the presidential political rhetoric that discursively modified the Bosnia and Herzegovina national identity. Lastly, the study of Fulling (2009) showed strategy of justification in quotes found in the programs and pamphlets of Dutch political parties. Moreover, the results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Personal pronouns for strategy of construction were found in Alavidze (2017). Analogies and stories for strategy of justification were evident in Kulo (2009) and Beard (2000), and in De Fina (2023) and Muller and Di Luzio (1995). Negatively connotated metaphors for strategy of transformation were evident in Mocanu (2015) and Min (2005). Lastly, anti-miranda and pejorative attributions for strategy of demontage were evident in Fadhil (2021) and Hom (2012).

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the fallibility of Philippine integrity was discursively constructed as part of the Philippine *homo nationalis* of the Philippine national identity. Excerpts for construction primarily pointed out the insufficient participation of the Filipinos towards civic commitment. However, as this negative character is discouraged, a better option is presented and is therefore established into the Filipino mentality. Excerpts for justification revealed the supposed reasons for the problems the Philippines is now experiencing. However, acknowledgement of these causes which stemmed from the past contribute to a better understanding of the present that would hopefully lead to better behavioral dispositions and collective mentality of the Filipinos. Excerpts for transformation served as an eye-opener to the reality that there are flaws in the



Philippine integrity and that change is necessary. While fixes may not be possible overnight, acknowledgment of the truth serves as the first step towards change. Lastly, excerpts for demontage revealed the flaws in the integrity of the nation. For one, unity has always been a challenge that is beyond any Filipino's reach. Second, the citizens have lost trust in the government and ultimately, even trust in themselves. From these, the Philippine integrity was deemed fallible.

The Pursuit for Philippine Moral Imperative and National Advancement

Three macro-strategies factored in the discursive construction of the pursuit for Philippine moral imperative and national advancement. First, the strategy of construction was embodied in three micro-strategies and their relative linguistic realizations. The first micro-strategy *singularization* was linguistically realized through the use of hyperboles, miranda, and positively connotated attributions, and parallelism. The second micro-strategy *autonomization* was evident in the use of lexemes with semantic components constructing autonomy. The third micro-strategy *unification and cohesivization* was manifested in appeals for cooperation, pulling together, and solidarity. Second, the strategy of justification evident in the micro-strategy *legitimation/delegitimation* was linguistically realized through direct quotations. Lastly, the strategy of transformation evident in the micro-strategy *discontinuation or dissimilation* was linguistically realized via normative-deontic modals.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction and transformation in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategy of construction in the political discourses of three Nigerian leaders. On the other hand, the study of Fulling (2009) showed strategy of justification in the quotes found in the programs and pamphlets of Dutch political parties. Lastly, the study of Beglerovic (2020) indicated strategy of transformation in the presidential political rhetoric that discursively modified the Bosnia and Herzegovina national identity. Moreover, results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Linguistic realizations for strategy of construction were evident in Byalkivska and Piddema (2015) and Irawan et al. (2022) for hyperbole, Akinseye (2023) and Kazemian and Hashemi (2014) for parallelisms, Foldvary (2011) and Costales (2021) for lexemes with semantic components constructing autonomy, and Strikovic et al. (2023), Howell, Porter, and Wood (2020), and Scacco and Coe (2016) for appeals for cooperation, pulling together, and solidarity. Direct quotations for strategy of justification were evident in Dumitrescu and Ross (2020) and Kuo (2001). Normative-deontic modals for strategy of transformation were evident in Carr (2016), Abdullah and Saadoon (2012) and Gyuro (2015).

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the pursuit for Philippine

moral imperative and national advancement was discursively constructed as part of the Philippine *homo nationalis* of the Philippine national identity. Excerpts for construction focused on the positivity of hope for national redemption. This can only be attained through unity and a review of national values that would be instrumental in the journey towards progress. Excerpts for justification served as reminders that events in the past teach us lessons to become a better nation. Such experiences become the basis for what must be done and avoided to attain national advancement with a renewed sense of moral imperative. Excerpts for transformation emphasized the need to deviate from what may destroy the nation and focus on opportunities to improve in all aspects that would benefit every Filipino.

Discursive Construction of the Philippine Political Past

Revolving around founding origins, political successes, times of prosperity and stability, and defeats and crises, two facets of the Philippine Political Past were discursively constructed which concentrated on the two significant revolutions that aided the shaping of the Philippine national identity.

The Philippine Historical Uprising

Only the macro-strategy of construction factored in the discursive construction of the Philippine historical uprising. This was evident in the micro-strategy *assimilation, inclusion, and continuation* linguistically realized through proper names indicating Filipino descent.

The findings are congruent to several studies in terms of the above-mentioned discursive strategy in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategy of construction in the political discourses of three Nigerian leaders. Moreover, the results of the study in terms of linguistic realization used is in consonance with several analyses as well. Proper names interpreted as indicating national descent for strategy of construction were evident in van Dongen et al. (2020) and Rutkowski and Skowronek (2019).

Through the above-mentioned discursive strategy and linguistic realization, the facet of the Philippine historical uprising was discursively constructed as part of the Philippine political past of the Philippine national identity. Excerpts manifesting the strategy of construction served as a reminder of the past without which the Philippines would not be able to achieve what it has now. However, it also re-established the Philippine national identity albeit a present, more current setting. Yet similar to the memory of the past, Filipino unity is imperative not just for a progressive future but also to give credit and tribute to the historical past that has shaped the nation.

The Philippine People Power Revolution

Four macro-strategies factored in the discursive construction of the Philippine people power revolution. First, the strategy of construction evident in the micro-strategy *assimilation, inclusion, and continuation* was linguistically realized in proper names indicating Filipino descent. Second, the strategy of



justification evident in the micro-strategy *legitimation or delegitimation* was linguistically realized through direct quotations. Third, the strategy of transformation evident in the micro-strategy *vitalization* was linguistically realized through positively connotated personifications. Lastly, the strategy of demontage evident in the micro-strategy *negative presentation of self or others* was linguistically realized in anti-miranda and pejorative attributions.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction and transformation in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategies of construction and demontage in the political discourses of three Nigerian leaders. On the other hand, the study of Fulling (2009) showed strategy of justification in the quotes found in the programs and pamphlets of Dutch political parties. Lastly, the study of Beglerovic (2020) indicated strategies of transformation and demontage in the presidential political rhetoric that discursively modified the Bosnia and Herzegovina national identity. Moreover, results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Proper names interpreted as indicating national descent for strategy of construction were evident in van Dongen et al. (2020) and Rutkowski and Skowronek (2019). Direct quotations for strategy of justification were evident in Dumitrescu and Ross (2020) and Kuo (2001). Positively connotated personifications for strategy of transformation were evident in Borčić, et al. (2016) and Sadeq (2019). Anti-miranda and pejorative attributions for strategy of demontage were evident in Fadhil (2021) and Hom (2012).

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the Philippine People Power Revolution was discursively constructed as part of the Philippine political past of the Philippine national identity. Excerpts for construction served as a reminder that the Filipinos are capable of instituting inclusive change for all. Filipino unity is imperative not just for a progressive future but also to give credit and tribute to the historical past that has shaped the nation. Excerpts for justification focused on the fact that the People Power Revolution has somehow shaped the Philippine national identity. Such event including sacrifices of others opened opportunities in the present to establish a new beginning. Excerpts for transformation emphasized the vitality of the Philippine national identity in the past as driven by one of the most memorable events in Philippine history. Prior to such display of strength are events that tested the resilience of the Filipinos. Excerpts for demontage served as a reminder that national tribulations are inevitable although some can be avoided than others. However, it also serves as a reminder that the government, although led by a president, is also directly affected by the voice of the greater masses.

Discursive Construction of the Philippine Political Present and Future

Explored in terms of citizenship, political achievements, current and future political problems, crises and dangers, future political objectives, and political virtues, three facets of the Philippine Political Present and Future were discursively constructed which embody the political perspectives, the collective goals, and the international relations of the Philippines.

The Political Stance of the Philippines

Only the macro-strategy of construction factored in the discursive construction of the political stance of the Philippines as a facet of the Philippine political present and future. This was evident in the micro-strategy *assimilation, inclusion, and continuation* linguistically realized through referential assimilation through realization as tropes, particularly personification.

The findings are congruent to several studies in terms of the above-mentioned discursive strategy in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategy of construction in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategy of construction in the political discourses of three Nigerian leaders. Moreover, the results of the study in terms of linguistic realization used are in consonance with several analyses as well. The utilization of referential assimilation through realization as tropes particularly personification for strategy of construction were evident in Palmadessa (2014) and Adel (2020).

Through the above-mentioned discursive strategy and linguistic realization, the facet of the political stance of the Philippines was discursively constructed as part of the Philippine political present and future of the Philippine national identity. Excerpts manifesting construction emphasized the real power behind the Philippines' government – not solely on the president but on the greater majority of the people. Assimilated into the Philippine national identity is the fact that democracy works not just for an individual or a select few, but for the entire nation and the common good.

The Growth Endeavor of the Philippines

Two macro-strategies factored in the discursive construction of the growth endeavor of the Philippines. First, the strategy of construction was embodied in two micro-strategies and their relative linguistic realizations. The first micro-strategy *assimilation, inclusion, and continuation* was linguistically realized through referential assimilation through realization as tropes, particularly metonymy. The second micro-strategy *unification and cohesivization* was evident in appeals for cooperation, pulling together, and solidarity, and of idiomatic metaphors. Lastly, the strategy of transformation was embodied in two micro-strategies and their relative linguistic realizations. The first micro-strategy *discontinuation or dissimilation* was linguistically realized through suggestive rhetorical questions, and normative-deontic modals. The second micro-strategy



vitalization was evident in the use of positively connotated personifications.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023) revealed strategies of construction and transformation in the analysis of the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategy of construction in the political discourses of three Nigerian leaders. Lastly, the study of Beglerovic (2020) indicated strategy of transformation in the presidential political rhetoric that discursively modified the Bosnia and Herzegovina national identity. Moreover, the results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Referential assimilation through realization as tropes particularly metonymy for strategy of construction were evident in Palmadessa (2014), Adel (2020), and Pavlikova (2018). Linguistic realizations for strategy of transformation were evident in Spago (2020) and Beqiri (2018) for suggestive rhetorical questions; Carr (2016), Abdullah and Saadon (2012) and Gyuro (2015) for normative deontic modals; and Borčić, et al. (2016) and Sadeq (2019).

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the growth endeavor of the Philippines was discursively constructed as part of the Philippine political present and future of the Philippine national identity. Excerpts for construction highlighted the construction and establishment of the Philippine national identity in terms of future endeavors geared towards collective progress. Opportunities abound for the betterment of the nation and the Filipino people. However, these can only be achieved through sincere cooperation and if every Filipino is willing to grow as citizens of the Philippines imbued with responsibilities and obligations not just for oneself but for all. Excerpts for transformation unveiled the present situation of the Philippines with the aim of giving a glimpse towards the future. This future that beckons Filipinos entails solid unity and belief in oneself and of others. Albeit being daunting, the possibility of change becomes a motivating factor for the construction of the Philippine national identity.

The Global Connections of the Philippines

Only the macro-strategy of construction factored in the discursive construction of the global connections of the Philippines. This was embodied in two micro-strategies and their relative linguistic realizations. The first micro-strategy *assimilation, inclusion, and continuation* was linguistically realized through lexemes with levelling components, and spatial reference through persons and toponyms. The second micro-strategy *unification and cohesivization* was evident in the use of appeals for cooperation, pulling together, and solidarity.

The findings are congruent to several studies in terms of the above-mentioned discursive strategies in various spoken and written political discourses that shaped the national identity of their respective countries. The study of Khorsheed et al. (2023)

revealed strategy of construction in the discursive construction of the Kurdish national identity. Likewise, the study of Adekoya (2018) exposed strategy of construction in the political discourses of three Nigerian leaders. Moreover, the results of the study in terms of various linguistic realizations used are in consonance with several analyses as well. Linguistic realizations for strategy of construction were evident in Khorsheed et al. (2023) and Adekoya (2018) for lexemes with levelling components; Reszegi (2020) for spatial reference through persons and toponyms; and Strikovic et al. (2023), Howell, Porter, and Wood (2020), and Scacco and Coe (2016) for appeals for cooperation, pulling together, and solidarity.

Through the above-mentioned discursive strategies and linguistic realizations, the facet of the global connections of the Philippines was discursively constructed as part of the Philippine political present and future of the Philippine national identity. Excerpts manifesting construction emphasized the role of the Philippines in the global arena. Despite being a small country, the Philippines has proven itself, time and again, that it is capable of making a difference and inspiring other greater nation-states. Moreover, the construction of the Philippine national identity is not solely influenced by what happens within the archipelago, but also what transpires beyond it. Likewise, the Filipino people is not only affected by their fellowmen, but also by others from other countries.

Political Ideologies Influencing the Discursive Construction of the Philippine National Identity

Five political ideologies that emerged from the analysis of the presidential inaugural addresses influenced the discursive construction of the major thematic contents of the Philippine national identity:

Philippine *Homo Nationalis*

Liberal Democracy. The excerpt from CCAS1 unveiled the dawn of liberal democracy after the Marcos regime through the People Power Revolution. The metaphorical parallelism *as our people lost their liberties at midnight... and people should formally recover those...in the full light of day* exemplified the existence of the state as a means to attain freedom. This is congruent to the view of Thompson (2018) that liberal reformism entails a discursive commitment to both democracy and good governance as progressive political transformation is instituted within the government under the parameters of the State's laws, typically through peaceful, parliamentary, and non-violent means. However, Buendia (1992) argued that while it is the government's focal duty to help its constituents, mutual agreement and consent is necessary.

Social Democracy. The first excerpt from FVRS2 affirmed democratic equality of power through civic commitment as reflective of social democracy. It started with a fact of how the Philippines has historically required less from its people, thus resulting to the acknowledgement of few individual obligations. It is then followed by a recommendation of what must be done to attain progress. Similarly, the second excerpt from RRDS7 accentuated the crucial importance of citizens' support and cooperation to the success of a government, and that equality of people's rights gain social impact if equality of power is



achieved through democracy for all. Such democracy only becomes possible through the people. It is then the challenge that the government has accepted to be open to the voice and the needs of the people and to strive to keep their faith in the leaders they have elected for public service. Moreover, the excerpts reflect the necessity of equality of social power especially the inclusion of the marginalized sectors, as well as the achievement of economic prosperity through civic commitment. These findings are in consonance with the idea of Tolosa (2011) that *bayanihan* is necessary in building communities along socio-economic lines in order to avoid either excessive individualism or collectivism in the country. Moreover, Karaos (1987) posited that this ideology is aimed at dismantling power inequalities and strengthening equality for all.

Patriotism. The excerpt from GMAS4 shows Rizal's counsel on national commitment that is only attainable when an individual learns to think more of the welfare of others more than oneself. Moreover, it shows a comparison between the Filipinos and stones - worthless alone but strong together - and of the Philippines as the great structure built upon the virtues, values, identity, and efforts of the Filipinos. Similarly, the excerpt from GMAS5 presumes that the Filipino people share the common values of hard work, shared sacrifice and love of country, and that through these elements, unity is possible. These findings corroborate the stance of Mascay (2021) that patriotism constitutes love for the country and welfare of the people. Furthermore, Primoratz (2020) delineated patriotism from nationalism, with the former exhibited in a reasonable degree and without ill thoughts about others and hostile actions towards them, while the latter is revealed in unbridled reactions that cause one to think ill of others and act badly towards them.

Pacifism. In the excerpt from FVRS2, the Filipino people were compelled to help make the government fair and inclusive. Likewise, Filipinos were called to lay down their disagreements and instead unite for the reform of the society. The government implicitly told the insurgents to choose peace over armed conflict. The Filipino people were encouraged to work towards the common goal of societal renewal through amicable means. This finding affirmed the notion of Gullpalli (2021) that the endpoint of this ideology is amicable and peaceful conflict resolution, opposing any unnecessary governmental use of force or violence such as military intervention or worse, wars - to settle any political, economic, and social matters. Accordingly, Oreta (2018) opined that aside from the avoidance or removal of armed violence in politics in a democracy, peace processes allow the people to contend and engage in their preferred political agenda within the parameters of the law. Thus, negotiations are an integral factor to achieve peaceful settlements between the government and the insurgents.

Philippine Political Past

Social Democracy. In the excerpt from GMAS4, it is implied that poverty has long been the nation's perennial problem. It has rooted since Andres Bonifacio's historical uprising in 1896 which initially aimed for equality of societal power. Despite the results of the said revolution and even that of the People Power, poverty has not been completely eradicated in any of the

administrations. Moreover, a historical metaphor was also evident in the line *seeds were sown in the revolution* in reference to Bonifacio's revolt. It is implied that this unsolved national dilemma from the past can only be solved through necessary corrections in the political and economic aspects of the government. This conforms with the viewpoint of Karaos (1987) that social democracy is aimed at undoing power inequalities, and strengthening all-encompassing democratic institutions. Further, Tolosa (2011) affirmed that civic commitment is necessary in building communities to avoid excessive individualism or collectivism.

Patriotism. The excerpt from GMAS4 reveals how the People Power revolution and national unity made a new start possible for the Philippines as a republic. A metaphorical quotation from Ninoy Aquino of the Filipino people being *worth dying for* invoked the significance of patriotism. Despite faults, the Filipino is still deemed worthy of sacrificing one's life for the greater good of the nation. The same sentiment is echoed in the excerpt from CCAS1 which also highlights Ninoy's belief of the strength of the unified Filipino people. The personification in *the united strength of the Filipino people would suffice to overturn a tyranny...* and *the brutal murder of Ninoy created that unity in strength* accentuated the significance of the People Power Revolution as an indispensable part of the Philippine's historical past. This affirms the notion of Mascay (2021) that patriotism is exemplified as love for the country and welfare of the people. Additionally, Primoratz (2020) posited that patriotism does not include having ill thoughts or hostile actions towards others while maintaining fervor for one's country.

Philippine Political Present and Future.

Liberal Democracy. The excerpt from CCAS1 reveals the changes brought by the People Power Revolution especially in terms of national liberation. The use of personification in *People Power shattered the dictatorship, protected those in the military...and...established a government* accentuated its significance to the totality of the Philippines as a nation. This is in agreement with the belief of Thompson (2018) that liberal reformism entails a discursive commitment to both democracy and good governance. However, Buendia (1992) argued that while it is the government's focal duty to help its constituents, mutual agreement and consent is imperative in liberal democracy to avoid any conflicts.

Social Democracy. A call for unity is mentioned in the excerpt from GMAS5. To be united, Filipinos are compelled to tear down the walls of social division for economic opportunities to be made available for all. This unity also entails social justice, political reform, economic transformation, social cohesion, and democratic faith. Unity is measured in the harmony of all social classes and agreement on the vital requirements necessary for national progress. Similarly, the second excerpt emphasizes not just the equalization of societal power but the consideration and inclusion of the marginalized sector. In social democracy, the notion of national aspirations should include the hopes and dreams of the poor for the entire nation to succeed. Additionally, immorality exists when those affluent in wealth and power take more, leaving the poor with less; when the government succumbs to corruption, leaving the poor



unprovided with the necessities; and when insurgents destroy the nation, leaving the poor prone and vulnerable. This is in consonance with the standpoint of Karaos (1987) that equality of power encompasses even those in the marginalized sectors. Moreover, Tolosa (2011) also affirmed that in order to avoid either excessive individualism or collectivism, civic commitment is necessary.

Patriotism. This ideology at its very core is featured in the excerpt from RRDS7 which revealed that the journey towards a better Philippines starts with the recovery and revitalization of the lost and faded values crucial to the Philippine national identity. Patriotism is also evident in the presidency itself as the responsibility it entails is to serve everyone and not just one. This is congruent to the notion of Mascay (2021) that patriotism is inclined towards welfare of the people and ultimately the love for the country. Furthermore, Primoratz (2020) postulated that the virtues and achievements an individual considers must be based on objectively valid standards that are as well in congruence to the country's past and present political records that are likewise lived by the people at present.

Globalism. The first sample statement from FVRS2 reveals the government's plans of maintaining old ties and developing new alliances with other countries. Similarly, the excerpt from BSAS6 reveals the country's readiness to fulfill its role as an international member of nations, specifically as a predictable and consistent place for investment. The ideology of globalism is evident in both excerpts as another façade of the Philippine national identity is presented - that of the nation maintaining its global relations. This corroborated the standpoint of Hasa (2021) that globalism is the philosophy that people, information, and goods should be able to cross national borders without any untoward restrictions. Moreover, Funtecha (2009) posited that globalization as a homogeneous concept unifies nations into one harmonious society that highlights trade, industry, and culture among other aspects that can be bartered for the benefit of all.

CONCLUSION

In the presidential inaugural addresses, the five discursive macro-strategies posited by Wodak et.al (2009) specific for the discursive construction of a national identity were manifested, namely: construction, perpetuation, justification, transformation, and demontage. Every discursive macro-strategy was constituted by specific micro-strategies with corresponding linguistic realizations reflected in specific lines from the corpora. Through these determined macro- and micro-strategies and linguistic realizations evident in the excerpts, the Philippine national identity was discursively constructed. Likewise, specific facets for each of the three major thematic contents were unraveled to portray the discursive construction of the Philippine national identity, to wit: the Philippine *Homo Nationalis* with the stability of Philippine autonomy, the fallibility of Philippine integrity, and the pursuit for Philippine moral imperative and national advancement; the Philippine Political Past with the Philippine historical uprising, and the Philippine people power revolution; and the Philippine Political Present and Future with the political stance of the Philippines, the growth endeavors of Philippines, and the global connections

of the Philippines. Moreover, five political ideologies emerged from the analysis of the excerpts in terms of the three major thematic contents. The emergent political ideologies of liberal democracy, social democracy, patriotism, pacifism, and globalism influenced the discursive construction of the Philippine national identity as portrayed in the presidential inaugural addresses.

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BEYOND THE BEATS AND MELODIES: A CRITICAL DISCOURSE ANALYSIS OF POP MUSIC FROM THE PHILIPPINES

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ABSTRACT

Pop music is a significant part of the cultural fabric, and it has an important role in framing public opinion and influencing social norms. This qualitative study which made use of Fairclough's Critical Discourse Analysis (CDA) framework investigated the type of pop music that dominated the Philippine music industry for the period 2017-2023. The factors contributing to their popularity among Filipinos as well as the linguistic elements and ideological underpinnings were also examined. In this research, corpora of 60 pop music lyrics and a total of 10 participants were used. The analysis uncovered that pop R&B is the most dominant type of pop music while relatability, emotional resonance, melodic appeal, cultural references, language accessibility, and social media influence are the factors that contribute to the popularity of pop music among the Filipinos. Moreover, the ideologies embedded in pop music included nationalistic ideology, sexism, intensive mothering ideology, new masculinity ideology, and post feminist ideology. The linguistic elements present in the lyrics included rhymes, metaphors, repetition, anaphora, epistrophe, assonance, alliteration, slang and non-standard language, and expressive values. The findings of this study highlight the transformative possibilities associated with incorporating popular music into educational methodologies, specifically in the realms of music education and language studies.

KEYWORDS: pop music, critical discourse analysis, linguistic elements, ideologies

1. INTRODUCTION

Pop music in the Philippines has evolved since 2010, witnessing shifts such as the fading popularity of rock bands and novelty songs from the 1990s and 2000s (Urrutia, 2019). De Leon (2018) sees pop music as a vibrant platform reflecting the country's social values through stories and emotions. Through its lyrics, Kaivanto and Zhang (2019) note its role as a vehicle for expressing sentiments through lyrics. Filipino pop music, known for its energetic beats, catchy melodies, and strong vocals (Kerlinger, 2022), faces emerging issues of representation and diversity in pop music genres, limiting the audience's appreciation of diverse expressions (Oliver, 2023). Scouring the diverse pop music types in the Philippines enables us to understand their impact on culture and society (Peralta, 2021; Martin, 2023) and how they illuminate existing societal values and the construction of ideologies (Cook, 2021).

In the Russian context, Aleshinskaya & Gritsenko, (2017) revealed the contrasting language ideologies, with pop music professionals favoring English and the audience supporting Russian language and culture. Focusing on language hybridization and the functions of English in Russian popular music, particularly through the lens of the television show "Golos", the study suggested how language choices in pop music contribute to the construction of diverse identities, illustrating the ideological dynamics embedded in Russian popular music. Moreover, the examination of Singaporean pop music by Kong in 2017 depicted how music becomes a potent tool for both

perpetuating state-supported ideologies and serving as a form of cultural resistance.

In the Philippines, Huiqi (2021) asserts that music serves as a potent force for expressing shared political experiences and mobilizing people towards common purposes. It acts as a catalyst, using its rhythmic appeal to captivate and influence listeners, shaping the political discourse (Jie, 2023) on issues like racism (Horne, 2019), gender (Leonard, 2017) and democracy (Brusila et.,2022). Hence, it does not only reflect societal ideologies but also plays a pivotal role in actively shaping them.

However, studies on Philippine pop music lyrics lack a thorough exploration of the deeper socio-cultural and linguistic dimensions inherent in these compositions. In fact, Eiter (2017) perceived it as lagging linguistically although it serves as a valuable linguistic reflection of the present language landscape. While prior analyses touch upon musical styles and thematic elements, they fall short in addressing the profound societal implications of pop music influence. Also, several research examined pop music in the Philippines, yet many of them (De Lara, 2021; Mangaoang 2019; Shunwei & Jia 2022) do not employ a critical discourse analysis approach. Hence, this study aimed to uncover the linguistic elements and investigate the ideological underpinnings of selected pop music in the Philippines through critical discourse analysis (CDA). The classification of pop music and the factors contributing to their popularity among Filipinos were also examined and explained. The urgency of conducting this study



lies in the recognition that pop music, as a vital component of the cultural landscape, significantly shapes public opinion and molds social norms.

For teachers, this study can be used as a valuable resource that supports instruction. As teachers strive to cultivate socio-cultural sensitivity and responsibility, a comprehensive understanding and contribution to Filipino music becomes imperative. Hopefully, the present study also contributes to the music listeners for them to critically read and listen to pop music lyrics. Finally, the researcher intends to successfully disseminate the core findings of this study to other researchers, professional practitioners, and the wider community. At the same time, the researcher endeavors to transfer this research-based knowledge in future research forum or any avenue of formal publication.

2. OBJECTIVES

The objective of this qualitative study employing a critical discourse analysis framework was to analyze the pop music lyrics that dominate the Philippine music industry for the period 2017 – 2023. Specifically, this sought to answer the following research questions:

1. What type of pop music dominates the music industry in the Philippines for the period 2017 – 2023?
2. What make these pop music lyrics popular to the Filipinos?
3. What are the linguistic elements found in the selected pop music of the Philippines?
4. What ideologies are embedded in Philippine pop music?

3. METHODOLOGY

3.1 Research Design

This study employed a qualitative research design of Creswell (2009). Specifically, this utilized the Critical Discourse Analysis (CDA) to examine and interpret the unique linguistic characteristics of pop music lyrics. The three-dimensional analytical framework of Fairclough (1995) was applied, involving the analysis of text (rhymes, alliteration, assonance, anaphora, epistrophe, slang and non-standard language, metaphors, and expressive values), discourse processes, and social analysis or explanation, connecting discourse with the social and cultural reality in the Philippine setting.

3.2 Research Material / Participants

This study utilized 60 pop music lyrics, adhering to the recommended range of 10 to 100 research materials for analysis in qualitative research. The selection process involved chart performance on platforms like Billboard Hot 100, Filipino Hot 100 Songs Chart by Popnable.com, and Philippine Music Charts, considering factors such as streams on YouTube, Apple Music, Spotify, iTunes, Deezer, and radio airplays. The researcher classified pop music types, downloaded lyrics from various sources, and ensured linguistic diversity with songs in Filipino, English, or multilingual. Additionally, purposive sampling was seamlessly integrated, involving in-depth interviews with ten participants, including pop singers, fans from different generations, music teachers, and DJs from Davao del Sur. The

participants were deliberately chosen based on their specific characteristics, ensuring a focused exploration of their perspectives and experiences related to pop music popularity in the Philippines.

3.3 Data Collection

The study employed a systematic approach to gather data, selecting pop song lyrics from Filipino artists' albums released between 2017 and 2023. Utilizing various chart performances and rankings, the researcher ensured a diverse corpus, including factors such as rankings on different music platforms and music service providers like YouTube, Apple Music, Spotify, iTunes, Deezer. The linguistic elements of the lyrics, including rhymes, repetition, alliteration, assonance, anaphora, epistrophe, metaphor, and slang language, were analyzed. Also, an in-depth interview was conducted with ten participants, including pop singers, fans from different generations, music teachers, and DJs from Davao del Sur, following the recommendation of Guest et al. (2006) for qualitative studies. The interviews were facilitated using an interview guide, ensuring a focused exploration of their perspectives on pop music popularity. The qualitative data were transcribed, analyzed for recurring themes, and validated by language experts, maintaining rigor and credibility in the research process.

3.4 Data Analysis

This study employed Fairclough's three-dimensional analytical framework to comprehensively analyze 60 pop song lyrics, exploring linguistic elements and their connection to social and cultural realities in the Philippines. The research aimed to identify prevalent pop music types in the Philippines from 2017 to 2023, examine factors contributing to their popularity and analyze linguistic elements in lyrics to uncover dominant discourses and ideologies. Data analysis followed Miles and Huberman's (1994) procedures, involving data reduction, display, and conclusion drawing. The researcher systematically selected pop song lyrics, performed linguistic analysis, linked discourse with social structures, and conducted thematic analysis based on in-depth interviews. Visual representation through tables showcased the distribution of pop music types and linguistic elements as well as elucidated reasons for popularity, contributing to a structured and accessible presentation. Concluding narratives were constructed to effectively summarize the key findings and insights derived from the study, offering a concise recap of the research objectives and how they were addressed.

4. RESULTS AND DISCUSSION

4.1 Types of Pop Music

This study identifies various types of pop music in the Philippines, encompassing R&B pop, pop rock, pop rap, folk pop, dance pop, electro pop, each with its corresponding percentage out of a total of 60 pop music lyrics. As shown in table 1, Pop R&B emerges as the dominant type at 33.33%. This is characterized by the fusion of rhythm and blues with influences like pop, electronic music, funk, and soul. Pop rock follows at 23.33% which features electric guitar, bass, and drums, with a



focus on the lead vocalist. Pop rap constitutes 18.33% which showcased the blending elements of hip-hop and pop with infectious melodies and rhythmic vocal delivery. Folk pop accounts for 16.67% with its combining folk and pop elements,

catchy melodies and repetitive choruses. Dance pop and electro pop have 3.33% and 5% respectively which uniquely employ prominent vocals, melodic structures, and electronic sounds.

Table 1
Percentage of the Types of Pop Music in 2017-2023

Type of Pop Music	Frequency	% to 60
Pop R&B	20	33.33%
Pop Rock	14	23.33%
Pop Rap	11	18.33%
Folk Pop	10	16.67%
Dance Pop	2	3.33%
Electro Pop	3	5%

These findings were in consonance with the study conducted by Susic (2022) which showed that R&B/Hip-Hop as the predominant music genre in the United States since 2017. *Pop R&B artists and listeners* in 2023 also stressed that Pop R&B, a subgenre within pop music, integrates elements of rhythm and blues, featuring soulful vocals, smooth melodies, and emotive lyrics. Since the 1980s, it has gained popularity, with chart-topping artists such as Whitney Houston and Mariah Carey. Presently, contemporary musicians like Ariana Grande and The Weeknd are pushing the limits of Pop R&B.

4.2 Reasons of the Popularity of Pop Music Lyrics to the Filipinos

Table 2 shows the themes and core ideas generated from the data collected for the second research question which deals with the reasons that make pop music lyrics popular to the Filipinos. A total of six themes were identified. These include relatability, emotional resonance, melodic appeal, cultural references, language accessibility, and social media influence.

Table 2
Major Themes and Core Ideas on the Reasons of the Popularity of Pop Music Lyrics to the Filipinos

Essential Themes	Core Ideas
Relatability	Relating the lyrics to one's experiences and identifying oneself with them Having lyrics that reflect interpersonal relationships especially between parents-sons/daughters, husband-wife, lovers, and friends Recollecting life's happenings especially with the song's lyrics that resonate meaningful messages
Emotional Resonance	Evoking different emotions that touch the core of the listeners Internalizing the lyrics to sing the song with appropriate emotion Crying while singing or listening to the song or for others, enjoying the song that they like Feeling empty and sad while listening to heartbreaking love songs
Melodic Appeal	Appealing to the ears because of the catchy lyrics and melody Considering the musical elements like making use of upbeat music
Cultural References	Portraying Filipino values, practices, beliefs, folklore, and arts which spread our cultural identity Mentioning places, events, food, icons in the Philippines Drawing inspiration from historical and socio-political issues
Language Accessibility	Choosing Filipino language or using mixed languages and dialects in the lyrics Adding subtitles or captions to audiovisual content of songs to avoid language barrier Preferring English over Filipino language to widen global reach
Social Media Influence	Learning and discovering the song from friends and relatives in social media Uploading and sharing music-related content on social media Playing requested pop songs and downloading of pop music for classroom use Engaging fans to like and share song covers and making fan edits and fan online pages

The findings conformed the study of Zellner (2023) which stated that a pop song's immense popularity can be attributed to the profound depth of its lyrics and the relatable message it conveys. Huang (2023) also stated that in the realm of Filipino love songs resonated profoundly with the audiences. Their infectious melody and emotions propelled them to the top of the charts, capturing

the essence of forbidden love. In addition to that, Hope (2023) revealed that a catchy song is one that remains memorable to its listeners, lingering in their minds even when not actively playing. For Filipinos, for example, the lyrics of SB19's songs enhance the relatability and cultural side of the music. The songs even refer to traditional Filipino courtship practices, particularly highlighting



the act of *harana*, where individuals express their affection by singing to the person they admire (Cruz, 2023).

4.3 Linguistic Elements Present in Philippine Pop Music

The linguistic elements identified in this study include rhymes, anaphora, epistrophe, assonance, alliteration, slang and non-

standard language, metaphors, and expressive values. Table 3 introduces an organized and comprehensive breakdown of linguistic elements found in pop music, providing a detailed analysis of their frequency.

Table 3
Common Linguistic Elements in the Lyrics of Philippine Pop Music

Linguistic Elements	Pop Music Employing the Linguistic Element		Usage of Linguistic Element in Pop Music	
	Frequency	% to 60 PM	Frequency	% to Overall Usage
1. Rhymes			922	66%
1.1 Internal	58	97%	464	33%
1.2 Perfect	25	42%	41	3 %
1.3 Slant	60	100%	417	30 %
2. Repetition			278	20%
2.1 Anaphora	30	50%	32	2%
2.2 Epistrophe	14	23%	16	1%
2.3 Alliteration	37	62%	92	7%
2.4 Assonance	47	78%	138	10%
3. Language			84	6%
3.1 Slang	16	27%	47	3%
3.2 Non-Standard	24	40%	37	3%
4. Metaphors			29	2%
4.1 Standard	17	28%	18	1.2%
4.2 Implied	7	12%	7	.5%
4.3 Extended	4	7%	4	.3%
5. Expressive Values			89	6%
5.1 Positive	24	40%	38	2%
5.2 Negative	29	48%	51	4%
OVERALL USAGE			1,402	100%

This shows the prevalent linguistic elements shaping the lyrical landscape of pop music. With a total of 1,402 instances analyzed, the linguistic elements are distributed as follows: rhymes (66%), repetition (20%), language (6%), metaphors (2%), and expressive values (6%). This highlights the dominance of rhymes, constituting a significant 66%. Repetition, comprising 20%, demonstrates the recurrence of specific linguistic structures like anaphora, epistrophe, alliteration, and assonance. Language, making up 6%, encompasses both slang and non-standard expressions. Metaphors, at 2%, indicate a more sparing use of figurative language in pop lyrics. Expressive values, also at 6%, are evenly distributed between negative and positive elements.

These findings affirmed Bradley in 2017 where lyrical language in pop songs incorporate rhythm, rhyme, and metaphor, providing a unique form of modern poetry. Furthermore, Nunes et al., (2015) investigated the prevalence of lyrics in the music people regularly listened to and explored how songs with greater lyrical repetition are processed more smoothly, leading to broader and quicker adoption in the market. Building on this, Sinaga et al., (2022) also captured the slang word construction techniques

found in music lyrics like contraction, shortening, blending, clipping, and compounding which are used in some songs. In another study conducted by Amir et al., 2019, political ideology in Indonesian online media utilized expressive values which played a crucial role in conveying political ideology, evident in the use of symbolic language and repetition within the vocabulary.

4.4 Ideologies Present in the Lyrics of Pop Music

Nationalistic Ideology

In the context of nationalism, lyrics may evoke a sense of love and loyalty to one's country. One particular song titled "What?" which according to Lapa, 2021 expressed a play on the word *watawat* (flag). '*Di na bala para iangat ang bandera* (No need for bullets to raise the flag) brought the message that raising our flag does not require resorting to violence.

Other than the idea that the strength of the nation lies not in conflict or aggression but in the collective pride, there was also a connection to national symbols, and the acknowledgment of the country's enduring spirit even in challenging times. *Ama! Salamat*



at ikaw ang agimat (Father! Thank you, for you are the talisman. *Bawat banat, iwagayway mo ang watawat, Pilipinas!* (With every strike, unfurl the flag, Philippines!) The reference to the flag and the gratitude expressed towards a protective figure reinforced the importance of unity and patriotism. Specifically, it narrated that even in challenging times (*banat*) the national flag should be proudly hoisted, symbolizing resilience and unity. Also, the inclusion of *Pilipinas!* emphasized national identity.

In conformity, Nguyen in 2023 stated that contemporary Chinese hip-hop artists infused nationalist and patriotic ideologies into their lyrics. In fact, Kim (2016) expressed that nationalism as an ideology is manifested in popular music as well as it reflects a cultural expression.

Sexism

Other lyrics also contribute to sexism by focusing solely on a person's physical appearance. Particularly, the phrases, *Sa kanilang lahat ay talagang angat ka* (Among all of them, you really stand out) *Na paka-hot-hot 'di na dapat maghanap pa* (So hot, no need to look elsewhere), suggests that the person's value is primarily based on being attractive and "hot." This kind of thinking objectifies individuals, reducing them to their looks and implying that their worth is mainly about being physically appealing.

Sexism is everywhere, impacting people regardless of gender as noted by Neo (2023). It can be subtle or hidden in everyday life, from jokes to more serious consequences. Societal structures have deep-rooted sexism, and some song lyrics subtly include sexist messages, even if it is not always apparent. According to Park (2023) musicians are called to reject and not promote messages that objectify and hypersexualize women, emphasizing the need to protect women from the harms of sexism in media and society.

Post Feministic Ideology

In the analyzed pop music lyrics, post feministic ideology was made evident through the considerable number of lexical types that have been identified. The title of the pop music *Amakabogera* reinforces its content. It is a portmanteau of "I am" (pronounced as *Amma*), and *kabogera*, from the queer term *kabog*, which means a projection of oneself in an intimidating manner. It could also mean "Imma-stunner", "showstopper", "scene stealer" or "attention grabber". For the metaphors used in this song, individual empowerment and self-definition were being resonated. The metaphorical portrayal of walking "ala beauty queen" and wearing a crown "parang reyna" emphasized a reclaiming of traditionally associated symbols, turning them into expressions of personal agency and confidence.

The post-feministic ideology, as discussed by scholars like Gowrisankar (2016), is aligned with the modern empowerment narrative found in the lyrics. It emphasizes individual choice, independence, consumer culture, fashion, hybridism, humor, and a renewed focus on the female body. Similarly, Banet-Weiser (2018), a feminist media studies scholar in the 1990's observed

the widespread adoption of the rhetoric of "girl power" in North America and Europe portraying self-confident girls.

Intensive Mothering Ideology

There are also metaphorical expressions that highlight the central role of a mother in the life of her child, emphasizing a deep and irreplaceable connection. The line *Dahil ikaw ang aking mata / Sa tuwing mundo'y nag-iiba* (Because you are my eyes / Every time the world changes) suggests that the mother is not just a caregiver but also a guiding force, providing vision and understanding as the world evolves. This reflects the idea that a good mother is one who not only nurtures physically but also offer emotional support and guidance, helping the child navigate the complexities of life.

In consonance with the findings of this study, Elliot et al, (2015) conducted research which focused on intensive mothering ideology, promoting sacrifice, self-reliance, and protection. However, Budds in 2021 emphasized the need to challenge the Western-centric motherhood model, as it may isolate and overwhelm women. Also, she looked into the benefits of broader social support systems for both women and children, while encouraging women to seek support without compromising their identity as a 'good mother'.

New Masculinity Ideology

There were positive values which reflected the encouragement to smile always in the lines *Basta't ngumiti ka lang palagi, lagi, lagi, oh, lagi* (Just keep on smiling always, always, always, oh, always). The lyrics beautifully expressed his overwhelming affection and deep admiration for his daughter, portraying how utterly captivated he was by her, emphasizing the simple joy he found in her constant smiles. Another was the readiness to stay immersed just to be with his daughter, *Handa akong magbabad, makasama ka lang / Ayos lang kahit gabihin pa 'ko kakatingin* (I'm ready to linger, just to be with you / It's fine even if I stay up all night just staring at you) and the acceptance of spending hours happily without regret, *Okay lang, anak, kung ilang oras ang masayang / 'Di naman ako manghihinayang* (It's okay, my child, regardless of the hours wasted / I won't be regretful) all demonstrated a shift towards a more emotionally engaged and nurturing masculinity.

Offer & Kaplan (2021) explored a study on the relationship between men's limited participation in childcare and shared ideals of new fatherhood. It examined the "new masculinity ideology," a cultural-ideological construct associated with authenticity, emotional expressivity, and holistic self-awareness. It indicated that new masculinity significantly influences emotional engagement and parental responsibility. Despite evolving ideals, the traditional breadwinning role remains important in this context. Similarly, in response to societal and cultural changes, Connor et al in 2021 conducted a systematic review which explored the evolving nature of masculinity.



CONCLUSION

The study spanning 2017-2023 on pop music in the Philippines revealed a dynamic landscape with pop R&B emerging as the dominant genre, constituting 33.33% of analyzed lyrics. The diverse linguistic elements employed in Philippine pop music showcased a sophisticated use of language to convey emotions, tell stories, and connect with the audience, contributing to a rich linguistic landscape. The popularity of pop music in the Philippines is attributed to its ability to connect with cultural, emotional, and linguistic sensibilities, encompassing relatability, emotional resonance, melodic appeal, language accessibility, cultural references, and social media influence. Moreover, the diverse ideologies in pop music lyrics reflect an evolving societal norms and values which serve as a platform for expression and contributing to the complex tapestry of beliefs and perspectives within Filipino society.

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LIVED EXPERIENCES OF ILLITERATE PARENTS IN FOSTERING HOME LITERACY ENVIRONMENT: A HERMENEUTIC PHENOMENOLOGICAL STUDY

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ABSTRACT

This study intends to examine the lived experiences of illiterate parents in A Home Literacy Environment (HLE). The Researcher employed hermeneutic phenomenology to analyze the responses of fifteen illiterate parents of Cabog, Dingalan, Aurora, employing Moustakas' method. After extensive data analysis, seven themes emerged: (1) looking at oneself; (2) surviving a day; (3) going through a range of emotions; (4) coping with illiteracy; (5) understanding illiteracy; (6) working with others; and (7) being worthy beyond illiteracy. The participants live their lives with a positive and negative self-perspective, balancing dependence and independence as they go about their daily activities. They felt a variety of emotions while fostering HLE due to their circumstances. On the other hand, they overcame illiteracy by formulating independent and collaborative strategies for guiding their children as they read and write at home with the assistance of the school and the community, and by receiving tangible and intangible supports. As HLE promoters, they viewed themselves as motivators, school collaborators, and even as exerting additional effort. It is suggested that schools and local government units (LGUs) develop programs suited to their necessities and conduct advocacy campaigns.

KEYWORDS: *lived experiences, illiterate parents, hermeneutic phenomenology, fostering home literacy environment*

INTRODUCTION

Home Literacy Environment (HLE) is a literacy activity that parents engage in with their children that involves parent reading practices, books at home, and communication about books between families (Boerma et al, 2018). It is regarded as the reason and source of a child's ability to read and write. As an early childhood education major, the researcher wishes to explore how home literacy environments are produced by parents who cannot read or write.

When it comes to fostering HLE, it can be argued that the child's home is his or her first classroom; it is where he or she first learns to speak and becomes aware of the world around him or her. Because the home is the first school, parents are their children's first teachers. Children receive their first lessons from their parents, pointing out the importance of parents in their children's early childhood education.

What happens when parents are illiterate, given that they are thought to be the main force behind HLE? Parents will undoubtedly face challenges when striving to foster literacy at home. Parental literacy activities and parental literacy expectations have a greater impact on children's literacy knowledge enhancement (Dong et al., 2020). The significance parental figures place on literacy and the types of experiences they make for their children to engage with it as their child's first and most important teacher are great predictors of literacy proficiency in school (Swain & Cara, 2018).

One of the possible consequences of parents' illiteracy is their children's illiteracy, as noticed and evident when the Researcher looked at and investigated in Cabog, Dingalan, Aurora. According to the World Bank's most recent figures on learning poverty in 2021, at least nine out of ten children in the Philippines fail to read and write simple text, as seen in an online article written by Chi (2023). The South-east Asia Primary Learning Metrics (SEA-PLM) conducted in 2019 revealed similar findings, with only 10% of Filipino learners developing competency in reading, 17% in maths, and 1% in writing. This shows that children in our country have low literacy skills.

As the Researcher worked with Cabog Integrated School (CIS) teachers in primary grades, she observed that the majority of pupils who cannot read and write live with illiterate parents. On the other hand, after offering tutors to primary schoolchildren, specifically in Grade 1, she discovered that some can read despite being the children of illiterate parents. When the Researcher became aware of this circumstance, she became intrigued and began to investigate how CIS parents promote a home literacy environment, particularly those parents who are illiterate.

During one of the Researcher's encounters with one of the Grade 1 students at CIS, who is already nine years old but cannot read and write, she was saddened by his situation, and during their tutorial sessions, the student mentioned that he was unable to read and write because no one could teach him at home. It was also



established during an informal conversation with CIS parents that these illiterate parents are unable to educate their children to read and write since some of them are from the Indigenous community known as Dumagat.

The Researcher intended to understand and give meaning to how illiterate parents nurture a home literacy environment by looking at their lived experiences with the aforementioned observations and situations at CIS. When participants' lived experiences are reported and examined, it can serve as a foundation for how they might be assisted in creating a home literacy environment.

Purpose Statement

This hermeneutic phenomenological study aims to describe and understand the lived experiences of parents who cannot read and write (illiterate parents) in fostering home literacy environment for their children in Cabog Dingalan, Aurora. At this stage illiterate parent is defined as parent who is unable to read and write.

Specifically, this study sought to answer the following questions:

1. What does a typical day look like for the participants?
2. What are the participants' lived experiences as their children are reading and writing at home?
3. How do the participants perceive their roles in fostering a home literacy environment?

METHODS

Research Design

The Researcher used a qualitative approach in conducting the proposed study. To be specific, the Researcher employed hermeneutic phenomenology. The purpose of hermeneutic phenomenological research is to bring to light and reflect upon the lived meaning of this basic experience.

Sample

This study involved fifteen (15) parents from Cabog, Dingalan, Aurora who are illiterate. The criteria for selecting the participants are: (1) they should not know how to read and write and cannot even recognize the letters of the alphabet; (2) they should be the immediate parents or guardians; (3) they should be the ones who are at home with the kindergarten students; (4) they should be bona fide residents of Cabog, Dingalan, Aurora; (5) they should have at least one enrolled child in the Cabog Integrated School (CIS) or be experienced enough to enroll their children in the said school; and (6) they should be the ones who are supporting their child's education.

Sampling Procedure

The Researcher selected participants for the study through the use of purposive sampling. According to Patton (2014) in purposive sampling, items are selected according to some logic or strategy, carefully but not randomly. In relation to the study, the researcher selected the participants carefully based on the provided criteria.

Data Collection Procedure

Since the participants are parents from Cabog, Dingalan, Aurora, the Researcher requested permission to conduct the study from the Mayor of Dingalan, Aurora. She wrote a letter requesting permission to conduct research at Cabog among parents who cannot read or write. After two days of waiting, the Researcher was granted permission by the mayor to conduct a study among the parents of Barangay Cabog. She then addressed the Brgy Captain of Cabog to obtain permission and additional support to collect data from parents who cannot read or write. Since some of the participants are members of the Dumagat group, the Researcher also sought the consent of their chieftain, whose residence is in close proximity to the participants' homes.

After obtaining permission from the mayor, brgy captain, and chieftain to conduct the study, the Researcher enlisted the aid of Cabog Integrated School (CIS) personnel in order to readily locate the study participants. On the first day of the interview, the principal and teacher of CIS guided the Researcher to each participant's residence alongside the Researcher.

Data Analysis

The Researcher utilized hermeneutic phenomenology, making it different from just describing the experiences of participants in fostering home literacy environments. In hermeneutic phenomenology, the researcher is considered integral to the analysis, as an instrument of understanding. The researcher is a means to enact the interpretation of meaning from lived experiences. In finding the meaning of the collected data, the Researcher used an enacting interpretation that is nonlinear and circular. As an addition to this, the Researcher applied as well the Moustakas' (1994) data analysis technique of phenomenological reduction in this study. These following steps outline Moustakas' (1994) phenomenological model using phenomenological reduction: (a) Bracketing the Topic, (b) Horizontalization, (c) Clustering into Themes, (d) Textural Description of the Experience, (e) Structural Descriptions of the Experience and (f) Textural-Structural Synthesis.

Trustworthiness

The Researcher employed data triangulation to establish credibility (Stahl & King, 2020). As part of the study, the researcher conducted semi-structured interviews, home visits, and observations with fifteen participants. In addition, the researcher prolonged her engagement with the participants (Lincoln & Guba, 1985) by visiting the research site for over a month, from the first week of February to the first week of March which is evident with the audit trail. Transferability is attained by the researcher as she described the lived experiences of the participants in rich, dense detail, allowing their experiences to be generalized to other populations. The Researcher adheres to procedures for dependability, such as conducting peer-debriefings with a colleague and advisor. After the Researcher formulated the themes, she asked her three colleagues to examine and give comments on the formulated themes. To attain confirmability of the study, the researcher maintained a journal so that other



researchers can verify the results and data obtained. In addition, the Researcher allowed her adviser, colleagues, and professor to review the journal in question, and they may discuss it in peer-debriefing sessions with a reputable qualitative researcher.

Reflexivity

The Researcher holds a Bachelor of Elementary Education degree with a major in Basic Education. She earned a Master of Arts in Education with a concentration in early childhood education and is currently pursuing a Doctor of Philosophy with the same specialization. With the Researcher's specified educational background, she is considered equipped to explore how participants foster a home literacy environment. At 2016 she started working as a private elementary school teacher, and after a one year experience she was hired as a lecturer on hourly basis at Nueva Ecija University of Science and

Technology (NEUST). As an elementary major, the Researcher attempted to work as an elementary teacher at the Cabanatuan City Department of Education - Schools Division Office, where she taught at Lazaro Francisco Integrated School. Then, after experiencing working first at NEUST, she desired to go back at the said university, where she is currently employed as a faculty member of the College of Education at the Bachelor of Elementary Education (BEE) Program. As an early childhood advocate, the Researcher believed that the 0-8 years of a child's development are critical in all aspects of the child's development, particularly literacy and language acquisition. Furthermore, she believed that in order for a child to be fully equipped, a parent guide is required, as the old adage goes, "parents are our first teachers." With these beliefs in life, she investigated how parents helped on fostering home literacy environment despite the unusual circumstance they have, the fact that they are illiterate. But for this study and its findings, she put her opinion aside and relied on the literature, studies, and theoretical framework she found.

Ethical Consideration

The Researcher considered beneficence and non-maleficence, informed consent, confidentiality and anonymity, and the veracity of the data when conducting the study. To ensure *beneficence and nonmaleficence*, she ensured that no harm is caused to the participants during the study; specifically, no physical or psychological harm occurred during the study. To prevent psychological harm, each parent's questions were free of discrimination, and did not feel that their condition will be the subject of mockery or ridicule.

RESULTS

Operational Data Collection

With the assistance of the principal and teachers of Cabog Integrated School, the Researcher recruited fifteen parents who cannot read and write as participants. Additionally, she conducted a series of preliminary visits to get to know the potential study participants. After enlisting potential participants, she determined whether or not they met the specified criteria. Before the actual

interviews, she informed the participants of Cabog, with the assistance of the teachers, that they would be interviewed every weekend. At the start of the interview, she thanked the participants for voluntarily participating in the study. She then reviewed informed consent, which included the purpose of the study, information about audio recording, and the confidentiality of the participants' personal information.

The Researcher also informed the participants that they have the right to withdraw from the study and assured them that no recordings will be used without their consent. After reading the informed consent and receiving the participant's approval, the Researcher requested that the participant affix a thumbprint to the printed informed consent found in the appendices. As soon as the informed consent was signed or the thumb mark was affixed, the Researcher began the interview by obtaining the respondent's profile and asking research-related questions. Each participant was interviewed individually, with no time limit specified.

Operational Data Analysis

The Researcher started analyzing the data by typing up the raw data from the video and audio recordings. To make sure that the information and dialogue from the interview were accurate, she transcribed the raw data by hand and played the recorded video and audio many times. In her own computer, she stored the audio and transcribed the data. After transcribing each interview, she reviewed the transcribed text multiple times to familiarize themselves with the data's content prior to coding.

Following the six phases of thematic analysis, the Researcher manually analyzed the collected data by reading and rereading the transcribed interview script multiple times. She became familiar with the data by transcribing raw data, reviewing it line by line, documenting her views on potential codes or themes, and transferring the data from Word to Excel in order to organize the collected information. (Nowell et al., 2017; Vagle, 2018). She was able to compose sentences and sentence clusters that revealed the phenomenon of the study by reviewing the detailed information line by line. (Vagle, 2018). Following this, the researcher produced codes. During the second phase, the Researcher examined the generated codes and highlighted similar codes to identify categories within the data that were related. This procedure allowed the Researcher to compare the categories and identify similar categories that were relevant to the study's phenomena. In the third phase, she generated categories and organized the codes. In the fourth phase, she devised seven themes based on the common categories. In the fifth phase, she gave themes names and defined them in order to answer the research questions. In the final phase, she created the narrative report by describing in detail the coding and data analysis processes. (Nowell et al., 2017).

THEMES

Theme 1: Looking at oneself

Category 1: Positive Outlook. The first category is positive outlook which tells that even though they are illiterate they see



themselves in a good way. The Researcher carefully read and coded the raw data using the terms phrases *still proud of herself, feeling inferior but surviving*. This suggests that participants have enough courage to carry out their daily responsibilities despite their illiteracy, which is a strong indicator in building a home literacy environment in which motivation and support should come from the parents.

Category 2: Negative Outlook. Since the participants were unable to read and write, and since they cannot read and write in the way we are now, they feel negatively about themselves. In relation to this, the majority of participants exhibited negative attitudes and traits toward themselves as parents who cannot read and write. Nearly all participants feel bad about their illiteracy, particularly P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P14, and P15. A negative outlook suggests the negative emotions that participants associate themselves with, which are: *belittling oneself, dependent to others, sad, having regrets, having hard time surviving, feeling inferior, and not a good example for his/her children*. In the qualitative study conducted by Atli (2021), one of the themes that emerged was "My daughter should be educated, not be like me." All of the illiterate mothers who participated in the study associated illiteracy with many problems in their lives and expressed their belief that education is the most important criterion for their daughters to avoid experiencing the same problems.

Theme 2: Surviving a Day

Category 1: Practical life skills. The first category emerged as most parents agreed that practical life skills such as *household chores, buying at store, going to school, school-related tasks, reading doctor's prescription, signing on attendance, going to bank, signing and conversing* required reading and writing skills. Victoria (2019) also cited consequences of not being able to write that may affect an individual's life and community. These include illiteracy, poverty, child marriage, a difficult life, social crimes, unemployment, inherent illiteracy, the development of resources, a barrier to social change, a lack of dignity and exclusion from entertainment, backwardness, and social backwardness.

Category 2: Job-related skills. Despite of being illiterate the participants are indeed eager to survive in a day, wherein as reflected by their responses during the interview they believe that reading and writing skills are needed in their jobs. The generated codes in this category are *making and selling broomstick, harvesting and selling fern and as utility worker*. They proved that even without the reading and writing skills they can survive and provide the needs of their children. The responses of P3, P4, P5, P6 and P9 oppose the statement of Makunga et al. (2018) as illiteracy imposes a significant burden on family and/or external support systems, as illiterate adults rely on others for their survival.

Category 3: Dependent. Due to the illiteracy of the participants, it is obvious that most of them will survive dependently on others. Being illiterate resulted for participants to live a difficult life.

Illiteracy has serious economic, social, and health implications. Low reading levels are linked to fewer work possibilities and outcomes, as well as lower income. As a result, individuals frequently experience welfare reliance, low self-esteem, and higher crime rates. Furthermore, people with low literacy struggle with tasks like filling out forms and applications, understanding government rules, and reading prescription or nutritional labels, which limits their ability to make informed decisions in everyday life (The Impact of Illiteracy and the Importance of Early . . . , 2021).

Category 4: Independent. Not all of the participants are living dependently, there are still some who are able to survive their day independently by employing strategies which make them survive a day. After thorough analysis of data, the generated codes are: *using instinct, imitating others, praying and having faith in God and strategizing like memorizing/arranging daily routine*. As the Researcher has seen and being with the participants for over a month, including the times she needed to participate in our extension program, she can say that it is truly a phenomenon, for beyond their illiteracy, there are still things they can do.

Theme 3. Going through a range of emotions

Category 1. Positive emotions. The emotions of participants toward the reading and writing of their children is indeed important when fostering home literacy environment. When parents were asked on how they feel when they see their children reading and writing, some of them really get sentimental but with a happiness seen on their faces. The majority of parents are grateful that their children can read and write. Despite illiteracy, parents' top priority is their children's education, and they seek assistance and support to fulfill their duties, according to Ghanney's study. It is truly commendable that despite their condition, the parents of Cabog desired that their children would not be like them and would not endure a difficult life in the long run.

Category 2. Negative emotions. Truly as we heard the condition of illiterate parents we cannot deny the fact that some of them will feel sad or worst envious. In the present study most of the responses were identified as *sad, feeling sorry and envious*. As some of them are sad, it is undeniable that among those participants who formed the category of negative emotions, envy is their most common response, particularly P6, P8, P9, and P12. The frequent need for illiterate women to read and write in everyday life leads to a serious lack of self-confidence (Gokce, 2016). When parents are labeled as ignorant, their self-esteem and daily lives may suffer.

Theme 4: Coping with illiteracy

Category 1. Self-reliant strategy. The first category, the self-reliant strategy, describes the "own ways" that participant fostered a home literacy environment. As they find or seek assistance from literate individuals, it is crucial to note that mothers who cannot read and write promote literacy while simultaneously learning alongside their children. Obviously, if there are parents who find



assistance for their children, there are also parents who motivate and encourage their children while they are reading and writing.

Truly, parents will go to alternative ways to ensure that their children become readers and writers, and most importantly, that they grow with education. They have sacrificed their lifestyle and means of living in the mountains in order to send their children to school, as for them, this is the key reason why their children learn to read and write, as well as to establish a home literacy environment. Moreover, participants recognize that they can still support their children's literacy at home, despite their own illiteracy (Wijaya et al., 2020).

Category 2. Collaborative strategy. Helping their children and asking other literate children/family members to assist their sibling received the most responses, indicating that some parents did their best to assist their children in the best way possible, and if they were unable to do so, they asked other literate children/family members for assistance. Evidently, even though they are incapable of assisting their children, they continue to seek out literate individuals who can assist their children. According to teacher-participants in Ghanney's (2018) case study, some parents with limited formal education or an illiteracy background demonstrate an interest in their children's homework by requesting assistance from literate family members or friends.

Category 3. Unable. Despite the fact that some of the parents collaborated with literate others to teach, the Researcher labeled a few of them as "unable." It differs from those who collaborate with others to teach their children to read and write; here, the participants made no attempt to develop a home literacy environment. There are three codes under this category: *day dreaming/imagining that what if I can read/write, doing household chores and doing nothing.* Since they are illiterate, it is anticipated that they are incapable or do nothing when their children are reading and writing at home or when they encounter difficulties.

Theme 5: Understanding the Illiteracy

Category 1. "I" reasons. The first category, labeled "I" reasons, elaborates on how participants explain to their children why they are illiterate and unable to assist them by using themselves as examples. It has five codes: nothing to say, do not become like them, cannot explain, apologizing for their situation, and informing their children directly that they cannot read and write. "Do not end up like them" is the most common code generated by participants, indicating that they explain their predicament to their children by simply stating that they must study so as not to end up like them. There are also some parents who are unable to describe their situation to their children because they lack the words to express their feelings, implying that their oral comprehension abilities are impaired as a result of their illiteracy.

Category 2. Not "me" reasons. Another category is Not "me" reasons, which states that being illiterate is not because of them,

but rather to others and other events. There are two codes in this category: don't have a chance to go to school and family situation. This emphasizes the importance of education in assisting someone to become literate; if there is no school nearby, they may be affected, and worse, they may grow old illiterate, much like the participants in this study.

Theme 6: Working with others

Category 1. School as tutors. The first category is schools that function as tutors. There are three codes in this category and they serve as partners in teaching reading and writing, teaching their children in reading and writing, and updating them on their children's progress. Teaching reading and writing is the most prevalent of these three codes, with ten out of fifteen participants expecting their children's teacher to instruct their children on how to read and write.

As tutors, schools assist parents in fostering a home literacy environment by serving as a companion in reading and writing instruction, teaching the children of participants to read and write, and keeping participants notify of their children's progress.

This is reflected in the study of Tarraga et al., (2017), better educational outcomes for children necessitate coordinated and integrated efforts from the school, home, and community.

Category 2. School as provider. Other than being tutors, school also served as provider in terms of fostering home literacy environment. The school gave the reading and writing materials, or even the school supplies needed by the students. Poverty makes it harder for parents to purchase materials to build a home literacy environment. As the Researcher saw in Cabog, most parents do not have the financial wherewithal to purchase these goods; this is also obvious in their jobs, as evidenced by their demographic profile. Literacy materials is needed to provide in fostering home literacy environment. Zwass (2018) defined home literacy environment as the interactions students have with their parents regarding literacy topics and the availability of literacy materials within their own homes.

Category 3. Tangible Support. The third category, tangible support, refers to the materials, resources, and related items that were provided to children to encourage them to read and write. This category includes three codes for receiving reading materials, education supplies, and financial support. It is imperative to acknowledge that buying of printed materials and other resources that facilitate children's literacy development requires financial support in fostering a home literacy environment. The participants obtained financial assistance via the Pantawid Pamilyang Pilipino Program (4Ps). On the other hand, despite obtaining assistance and support, there are still parents who have not received any assistance in encouraging their children to read and write, and in general to build a home literacy environment.



Category 4. Intangible support. Aside from the concrete help the Researcher received, it is also beneficial to have intangible supports, which include two codes: teacher guidance and school support by providing quality education. Intangible support is also provided through the guidance of teachers and the provision of a quality education. Among the institutions in the community that can aid them, the school is evident. According to what they said, they are grateful that there is a school in front of them because it will make it easier for them to refine and shape their children.

According to the study by Mozolic and Shuster (2016), structured tutoring programs staffed by community volunteers could be a crucial factor in assuring the success of our most vulnerable students, as well as supporting teachers and involving the community in the public school system. However, according to the present study, there is no such program in the community of illiterate parents; however, some participants can still find tutors in their area.

Theme 7: Being worthy beyond illiteracy

Category 1. Motivator. The first category, being a motivator, consists of three codes: providing moral support, providing motivation while their children are reading/writing, and encouraging their children to attend school to learn to read. Due to their inability to read and write, the majority of the codes with the highest response is to provide emotional support. The fifteen participants the Researcher interviewed have a difficult time nurturing a home literacy environment, but, according to them, they are always there to watch over and support their children.

Motivation begins to develop extremely early in the lives of infants (Begus et. al, 2018). As many of us are aware, infants and toddlers instinctively share their interests in specific items, music, and facial expressions. They demonstrate this by their reactions. This same concept can be employed when noticing the child's interest in literacy-based activities such as shared reading. The findings indicate that parental incompetence is a significant barrier to monitoring and supervising children's assignments, corroborating the parents' claims from the interviews.

Category 2. School partners. The category of school partners was derived from five codes: *giving reminders about importance of education, providing education to their children, sending to school to learn reading and writing, teaching their children how to read and write and reminding their children to study harder.* Among these five, "reminding children of the importance of education" is the most common response, indicating that parents like them are truly concerned that their children might end up like them; consequently, they reminded their children of the importance of education, not just literacy. As the Researcher observed how they foster a home literacy environment and perceive their duties, the emphasis in educating their children is more on practical roles.

The participants are aware of their school-related responsibilities, and they are willing to collaborate with teachers and school

leaders in building a home literacy environment, despite their lack of literacy abilities. Tornblad and Widell (2014) found that parental involvement can generally be categorized into two groups: school-based involvement and home-based involvement.

Category 3. Exerting extra effort. It is also worth noting how noble the parents are in fostering a home literacy environment by going above and beyond just to encourage their children to learn how to read and write, and the codes are: providing child's needs and doing their best in teaching what they can. Looking on how the parents gave their effort in fostering home literacy environment, the researcher reflected on Lara and Saracosti (2019) as they analyzed parental involvement in three categories: high, medium, and low, in addition to parental factors at home, school, and by invitation. Before entering kindergarten, children must have a firm foundation in literacy; otherwise, they may be behind their peers.

DISCUSSION

Summary of Findings

The following findings are generated based on the presented results.

1. What does a typical day look like for the participants?

Participants lived their days looking positively and negatively at themselves. Some of them belittle themselves, have an inferiority complex, have regrets, and say that they are not good examples for their children, but despite this, there are still participants who are proud of themselves, fight the feeling of inferiority, and manage to survive. They survive each day doing practical life skills and job-related skills, saying that these are the things they do that need reading and writing. Furthermore, in order to survive, they are dependent on others by seeking help, being assisted by literate family members, and having someone explain to them what they need to do. Some of the participants survived their days being independent, wherein they used their instincts by imitating others, praying to God, and memorizing the daily routine.

2. What are the participants' lived experiences as their children are reading and writing at home?

Participants felt a range of emotions while developing a home literacy environment. They felt happy, motivated, sad, sorry, and envious, which were classified as good and negative emotions. Participants can develop a home literacy environment by coping with it, which is the focus of theme 4. They use a self-reliant and collaborative technique; yet, there are still parents who did nothing, rendering them unable of creating a home literacy environment. Participants described their circumstances by blaming themselves, while others explained it by being denied the opportunity to attend school and because of their familial situation. Fostering a home literacy environment will be impossible if the school serves as tutors and providers for its students. Furthermore, as a result of their status, they received assistance from various entities, such as their local government, like tangible and intangible support.



3. How do the participants perceive their roles in fostering a home literacy environment?

Participants perceived their role in promoting a home literacy environment as motivator, school partner, and giving extra effort. They become motivators by providing moral support, encouraging their children to attend school to acquire reading and writing, and providing assistance with reading and writing. As school partners, they also fulfill their roles by emphasizing the significance of education, sending their children to school to learn how to read and write, encouraging their children to study harder, and teaching their children to read and write in the most effective manner possible. A strong heart is unaffected by illiteracy; as a result, other participants exert extra effort because they see themselves as deserving of nurturing a home literacy environment; they provide for their children's needs and teach them what they know.

CONCLUSION

Based on the presented findings, the following conclusions were formulated:

1. The participants survived each day by viewing themselves negatively and positively, and by completing their daily duties and jobs in a dependent and independent manner, which they believed required reading and writing.

2. The participants had both positive and negative feelings about fostering a home literacy environment, and they were able to assist their children by employing a self-reliant and collaborative strategy while collaborating with the school and literate others with the tangible and intangible resources they received from the community.

3. The participants are motivators, school partners, and are making extra efforts to establish a home literacy environment that sees them as valuable beyond their illiteracy.

Recommendations

Based on the summary of findings and conclusions presented, the following recommendations are given:

1. An advocacy campaign may be created concerning the role of parents in fostering a home literacy environment so that parents are aware of how significant their role is in teaching beginning reading and writing to their children.

2. A partnership program between CIS and illiterate parents may be crafted and entitled "Tulong kay Nanay, Tatay sa Pagtuturo sa Bahay," wherein every afternoon, illiterate parents will be met by the teachers, and they will be taught simple ways on how they will foster a home literacy environment.

2.1. A capacitating program may be crafted as well as equipping the illiterate parents to read; the program may start with the basic tenets of reading and writing.

2.2. Continuous support should be given to the illiterate parents, specifically the reading and writing materials for their children, because most of them cannot afford to buy them.

2.3 The barangay should organize a group of literate individuals to serve as tutors for the children whose parents are not literate.

3. The Alternative Learning System (ALS) of the Department of Education should be consulted by parents in order to determine the most suitable academic program for them, specifically which help him to combat illiteracy.

4. The Local Government Unit of Dingalan, Aurora, may formulate personality development and career orientation suitable for illiterate parents to boost their self-confidence and self-esteem;

5. Future researchers may wish to examine the urban illiterate parents in terms of how they nurture a home literacy environment.

Limitations

One of the main limitations of this study is that, because the participants are illiterate, even the most basic questions asked of them were not clearly answered; thus, sometimes the Researcher gives examples to get an answer; however, to maintain the trustworthiness of the result, the researcher also did other ways of confirming the obtained answer through observation, memoing, and peer debriefing. Furthermore, because this is a unique study, there was little associated literature and research available.

Reflections

As an early childhood educator, the Researcher viewed this study as valuable and potentially transformative, particularly for parents. As the first educators, parents should be familiar with the pedagogy of beginning reading and writing. As the Researcher have spent a considerable amount of time with the participants, she can say that they have a large heart, which she believes is the reason why, despite being illiterate, they have literate children. They were willing to give up and do anything to help their children learn to read and write. Above all, they do not wish for their offspring to follow in their footsteps.

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GASTROINTESTINAL BLEEDING, DESCRIPTION, ETIOLOGY, EPIDEMIOLOGY, CLASSIFICATION, CLINICAL PRESENTATION, TREATMENT AND PROGNOSIS

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SUMMARY

Introduction: Gastrointestinal bleeding can be divided into 2 broad categories: upper and lower bleeding. The anatomical landmark that divides upper and lower bleeds is the ligament of Treitz. Bleeding that begins above the ligament of Treitz usually presents as hematemesis or melena, while bleeding that begins below is frequently shown as hematochezia.

Objective: to detail current information related to gastrointestinal bleeding, description, etiology, epidemiology, classification, clinical presentation, treatment and prognosis.

Methodology: a total of 32 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 23 bibliographies were used because the other articles were not relevant to this study. The sources of information were PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: gastrointestinal bleeding, intestinal bleeding, ulcer, NSAID, gastro.

Results: An *H pylori* eradication regimen should be started if *H pylori* is present in case of peptic ulcer. In upper gastrointestinal bleeding, hospital mortality rates are around 10%. This rate remains stable up to 1 month after hospitalization for gastrointestinal bleeding. Long-term follow-up of individuals with ADH shows that three years after admission, all-cause mortality rates approach 37%. Mortality rates were higher in women



relative to men, which differs from lower gastrointestinal bleeding. Individuals with multiple hospitalizations for gastrointestinal bleeding have higher mortality rates. Long-term prognosis was worse in individuals with malignancies and variceal bleeding. Prognosis is usually worse with advancing age. For lower gastrointestinal bleeding, all-cause in-hospital mortality is low at about 4%.

Conclusions: The care of patients with gastrointestinal bleeding requires coordinated and efficient interprofessional cooperation. Upper gastrointestinal bleeding (UGH) is more frequent compared to lower gastrointestinal bleeding (LGE). We have to recognize the importance of the clinical manifestations of each of these and the differential diagnoses of these alterations, in order to have a proper diagnosis and therefore start the correct treatment in a timely manner and improve the prognosis of the affected individual. For treatment, risk stratification is of vital importance as well as an assessment of the appropriate setting for treatment followed by resuscitation and supportive therapy while investigating the underlying cause and attempting to correct it.

KEYWORDS: bleeding, gastrointestinal, bleeding, abdominal, gastro, ulcer.

INTRODUCTION

Gastrointestinal bleeding is divided into 2 major categories: upper and lower bleeding. The anatomical landmark that divides upper and lower bleedings is the ligament of Treitz, also called the suspensory ligament of the duodenum. This peritoneal component suspends the duodenojejunal angle from the retroperitoneum. Bleeding that originates above the ligament of Treitz is usually shown as hematemesis or melena, whereas bleeding that begins below it is more frequently shown as hematochezia. Hematemesis is regurgitation of blood or blood in combination with stomach contents. Melena is dark, black, tarry stools that usually have a characteristic pungent odor caused by the function of digestive enzymes and intestinal bacteria on hemoglobin. Hematochezia is the passage of bright red blood through the rectum(1).

METHODOLOGY

A total of 32 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 23 bibliographies were used because the information collected was not sufficiently important to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in Spanish, Portuguese and English were: gastrointestinal bleeding, intestinal hemorrhage, ulcer, NSAID, gastro.

The choice of bibliography exposes elements related to gastrointestinal bleeding; in addition to this factor, a description, etiology, epidemiology, classification, clinical presentation, treatment and prognosis are presented.

DEVELOPMENT

Description

Gastrointestinal (GI) bleeding is used to describe any bleeding that occurs within the GI tract from the mouth to the anus. Usually the ligament of Treitz is used as a reference point to differentiate the two types of bleeding. Bleeds proximal to the ligament are upper gastrointestinal bleeds and bleeds distal to the ligament are lower gastrointestinal bleeds. The division into these 2 groups is vitally important because it directs the evaluation and treatment of the affected individual. Gastrointestinal bleeding is sometimes considered a life-threatening emergency that generates high morbidity and mortality, thus requiring hospital admission for urgent diagnosis and treatment(2,3).

Etiology and Classification

The etiology of gastrointestinal bleeding can be classified according to the site of origin of the bleeding into upper gastrointestinal (GI) bleeding and lower gastrointestinal bleeding. Some causes of upper GI bleeding are:

- Peptic ulcer disease (either secondary to excess gastric acid, H. pylori infection, or excessive use of NSAIDs or physiological stress).
- Esophagitis.
- Gastritis and duodenitis.
- Angiodysplasia.
- Portal hypertensive gastropathy (PHG).
- Mallory-Weiss tears.
- Dieulafoy's lesion (dilated bleeding vessel that erodes through the gastrointestinal epithelium but does not show primary ulceration; may be in any location along the gastrointestinal tract).
- Varices.
- Gastric antral valvular ectasia (GAVE; called watermelon stomach).
- Aortoenteric fistulas.
- Upper gastrointestinal tumors.
- Cameron's lesions (bleeding ulcers that occur in place of a hiatal hernia).
- Foreign body ingestion.
- Postoperative bleeding (post-anastomotic, post-polyectomy, post-sphincterotomy).
- Hemobilia.
- Hemosuccus pancreaticus(4,5).

Some causes of lower gastrointestinal bleeding are:

- Diverticulosis.
- Infectious colitis.
- Ischemic colitis.
- Angiodysplasia.
- Post-surgical (postpolyectomy, post biopsy).
- Anal fissures.
- Rectal varices.
- Inflammatory bowel disease.
- Radiation-induced damage following treatment of abdominal or pelvic cancers.
- Colon cancer.
- Hemorrhoids.



- Dieulafoy's lesion (infrequently outside the stomach, however it can occur throughout the gastrointestinal tract).

Lower gastrointestinal bleeding can be divided into 3 types: massive, moderate and occult bleeding.

1. Massive bleeding usually happens in individuals older than 65 years with multiple medical disorders, this bleeding shows up as hematochezia or bright red blood from the rectum. The affected individual is usually hemodynamically unstable with systolic blood pressure (SBP) equal to or less than 90 mmHg, heart rate (HR) less than or equal to 100/min and paucity in urine manufacture. Commonly in laboratory studies it presents with a hemoglobin equal to or less than 6 g/dL. Massive lower gastrointestinal bleeding is usually caused by diverticulosis and angiodysplasias, presenting mortality rates of up to 21%.
2. Moderate bleeding can occur in any age range and shows up as hematochezia or melena. The affected individual usually presents hemodynamically stable. Several pathologies must be taken into account in the differential diagnosis of these bleedings among which we have: inflammatory, infectious, neoplastic, benign and congenital anorectal alterations.
3. Similarly, occult lower gastrointestinal bleeding may be present in individuals of any age group. Laboratory tests show microcytic hypochromic anemia due to chronic blood loss. Inflammatory, neoplastic and congenital congenital disorders should be present in the differential of these individuals, usually the individual is hemodynamically stable and in good general condition(3,6,7).

Epidemiology

Upper gastrointestinal bleeding (UGH) is more common than lower gastrointestinal bleeding (LGE). The incidence of UGH is around 67/100,000 inhabitants, while that of LGE is around 36/100,000 inhabitants. The latter is more frequent in males because vascular diseases and diverticulosis are more common in this sex. Lower gastrointestinal bleeding is common, representing 20-30% of all individuals affected by a major gastrointestinal bleeding. The incidence increases with age. Acute colonic bleeding, or lower gastrointestinal bleeding, is defined as bleeding that occurs in the colon, rectum or anus, showing bright red blood, clots, or burgundy or melena-colored stools(1,3,8-12).

Gastrointestinal bleeding occurs in about 1.5 to 3.0% of hospitalized individuals with COVID-19 infection. Lower gastrointestinal bleeding associated with COVID-19 infection is usually due to ischemic colitis, associated with thromboembolism and a hypercoagulable state, which is also associated with COVID-19 infection(13).

Clinical Presentation

Individuals showing gastrointestinal bleeding may present with multiple signs and symptoms, so a complete history is essential, with emphasis on asking whether the bleeding is sporadic or recurrent, asking about the existence of associated symptoms, followed by a detailed review of medications and relevant family history such as colon cancer or inflammatory bowel disease (IBD)(3).

In addition, the affected individual should be asked about the following points:

- Previous gastrointestinal bleeding situations.
- Significant medical history for bleeding such as varicose veins, hemorrhoids, alcohol abuse, tobacco abuse, portal hypertension, ulcers, H. pylori, diverticulitis, inflammatory bowel disease.
- Contributing or confounding medications such as nonsteroidal anti-inflammatory drugs, antiplatelet drugs, bismuth, anticoagulants, iron.
- Comorbid conditions that could alter treatment.
- Symptoms related to bleeding, painless versus painful, previous vomiting or retching, difficulty swallowing, unintentional weight loss, altered bowel habits(1).
- On physical examination look for signs of hemodynamic instability such as:
- Orthostatic hypotension: related to loss of about 15% of total blood volume.
- Tachycardia at rest: also related to loss of less than 15% of total blood volume.
- Supine hypotension: related to loss of about 40% of total blood volume.
- Abdominal pain that may suggest perforation or ischemia.

In addition a rectal examination is important for the analysis of:

- Anorectal mass.
- Anal fissures.
- Hemorrhoids.
- Stool.

All individuals who show lower gastrointestinal bleeding should be classified and evaluated immediately and constantly, because gastrointestinal bleeding can rapidly decompensate the affected individual. The following laboratory tests are indicated in search of the source of the bleeding:

- Complete blood count.
- Hemoglobin/hematocrit.
- International Normalized Ratio (INR).
- Prothrombin time.
- Activated partial thromboplastin time.
- Lactate
- Liver function tests.

In addition, some diagnostic studies are useful, such as:

- Upper gastrointestinal endoscopy: becoming diagnostic and therapeutic. It shows the upper gastrointestinal tract



and provides injection therapy, thermal coagulation or hemostatic clips/bands.

- Lower GI endoscopy/colonoscopy: becoming diagnostic and therapeutic. It shows the lower GI tract and provides injection therapy, thermal coagulation or hemostatic clips/bands.
- Push enteroscopy: gives greater visualization of the small bowel.
- Deep small bowel enteroscopy: provides increased visualization of the small bowel.
- Nuclear scan: scanning of labeled red blood cells. Detects bleeding occurring at a rate of 0.1 to 0.5 ml/min using technetium-99m, detecting active bleeding. Important for angiographic and surgical interventions.
- Computed tomography angiography: identifies vessels with active bleeding.
- Standard angiography: identifies vessels with active bleeding and gives a possible treatment through embolization or intra-arterial vasopressin. It requires a rate of 0.5 to 1.0 ml/min of active bleeding to observe the site.
- Meckel's scan: nuclear medicine scan to look for ectopic gastric mucosa(14-16).

Treatment

Acute treatment of gastrointestinal bleeding typically involves assessment of the appropriate setting for treatment accompanied by resuscitation and supportive therapy, while the underlying source is sought(17).

Many acute colonic hemorrhages will stop spontaneously, allowing for non-urgent assessment, however in those individuals with severe hematochezia, defined as continuous bleeding within 24 h of hospitalization with a drop in hemoglobin of at least 2 g/dL and/or need for transfusion of at least 2 units of red cell concentrate, require emergency treatment(18).

Risk Stratification

Specific risk calculators attempt to support in identifying likely beneficiaries of ICU level of care; generally stratified according to mortality risk. The AIMS65 score and the Rockall score calculate the mortality rate of upper gastrointestinal bleeding. There are two separate Rockall scores; the first is calculated pre-endoscopy and identifies pre-endoscopy mortality, while the second calculates post-endoscopy and calculates overall mortality and the risks of rebleeding. The Oakland score is a risk calculator that tries to support the calculation of the probability of a safe discharge in lower gastrointestinal bleeding(1,19,20).

Intensive Care Unit

Individuals with hemodynamic instability, ongoing bleeding, or those at significant risk for morbidity and mortality should be monitored in an intensive care unit to allow more effective monitoring of vital signs and to be prepared for possible more emergent therapeutic intervention.

General Medical Ward

Most other individuals with gastrointestinal bleeding can be followed up on a general medical ward. However, continuous telemetry monitoring would be beneficial for early identification in case of hemodynamic compromise.

Outpatient

Generally patients with gastrointestinal bleeding require hospitalization, however there are cases such as some young healthy individuals with self-limited and asymptomatic bleeding who can be discharged and safely evaluated with outpatient monitoring.

Indications and Care

- Nothing by mouth.
- Supplemental oxygen if hypoxia may be through a nasal cannula, however, individuals with ongoing hematemesis or altered mental status may require intubation. Non-invasive positive pressure ventilation (NIPPV) should be avoided because of the risk of aspiration due to vomiting.
- Adequate intravenous access: at least 2 large-bore peripheral intravenous lines or a central catheter.
- Resuscitation with intravenous fluids, preferably normal saline or lactated Ringer's solution.
- Blood group and cross-matching.

Transfusions

- Transfusion of red blood cells, when there is a hemoglobin lower than 7 g/dL, including in individuals with coronary artery disease.
- Platelet transfusion, when platelet count is less than 50,000/microL.
- Prothrombin complex concentrate, when the INR is greater than 2.

Medications

- Proton pump inhibitor (PPI): used empirically for upper gastrointestinal bleeding. May be maintained or discontinued upon clarification of the source of bleeding.
- Antibiotics: used prophylactically in individuals with cirrhosis to prevent translocation, mainly by endoscopy.
- Prokinetic agents: generally used for better observation at the time of endoscopy.
- Anticoagulant and antiplatelet agents: should be discontinued if possible in acute bleeding. Reversal of agents should be considered on an individual basis and depending on the significance of the bleeding and the risks of reversal.
- Vasoactive drugs: somatostatin and its analog octreotide have been used to manage variceal bleeding by inhibiting vasodilator hormone release.



Additional

Nasogastric lavage may be considered if necessary to remove fresh blood or clots and improve endoscopic performance.

Consideration should be given to placing a Blakemore or Minnesota tube in individuals with hemodynamic instability or massive gastrointestinal bleeding with known varices, it should be done after securing the airway. This implies a significant risk of complications such as gastric perforation, esophageal perforation or arrhythmias(1,21,22).

Patients with massive hemorrhage or hemodynamic instability who present bleeding that is not amenable to other types of management should be promptly referred to the surgical team.

In case of diverticular bleeding, colonoscopy with bipolar probe coagulation, epinephrine injection or metal clips can be used.

If angiodysplasia is the origin of the lower gastrointestinal bleeding, thermal therapy such as argon plasma coagulation or electrocoagulation is performed.

Differential Diagnosis

Not many diagnoses resemble gastrointestinal bleeding. Sometimes hemoptysis can be confused with hematemesis or vice versa. Ingestion of bismuth-containing products or iron supplements may cause the stool to have a melanic appearance. Some foods with dyes can change the emesis or stool color to red, purple or maroon. Some of the differentials to consider in gastrointestinal bleeding are:

Upper Gastrointestinal Bleeding

- Peptic ulcer.
- Esophagitis.
- Gastritis.
- Duodenitis.
- Portal hypertensive gastropathy.
- Angiodysplasia.
- Varicose veins.
- Dieulafoy's lesion.
- Cameron's lesion.
- Aortoenteric fistulas.
- Gastric antral valvular ectasia.
- Mallory-Weiss tears.
- Hemobilia.
- Foreign body ingestion.
- Upper gastrointestinal tumors.
- Hemosuccus pancreaticus(2).

Lower Gastrointestinal Bleeding

- Inflammatory bowel disease.
- Colon cancer.
- Hemorrhoids.
- Dieulafoy's lesion.
- Diverticulosis.
- Angiodysplasia.
- Anal fissures.
- Radiation induced colitis.

- Rectal varices.
- Infectious colitis.
- Ischemic colitis.

Prognosis

There are limited studies on the prognosis following gastrointestinal bleeding.

In upper gastrointestinal bleeding, in-hospital mortality rates are around 10% according to several studies. This rate remains stable up to 1 month after hospitalization for GI bleeding. Long-term follow-up of individuals with ADH shows that 3 years after admission, all-cause mortality rates approached 37%.

Mortality rates were higher in females compared with males when adjusted for age, which differed for lower gastrointestinal bleeding. Individuals with multiple hospitalizations for gastrointestinal bleeding showed higher mortality rates. Long-term prognosis was worse in individuals with malignant neoplasms and variceal bleeding, as well as worse with advancing years(1).

In lower gastrointestinal bleeding, in-hospital mortality from all origins is less than 4%. The greatest risk of death corresponds to increasing age, comorbid conditions and intestinal ischemia. Some negative prognostic factors are secondary bleeding, hypovolemia, pre-existing coagulopathies, need for transfusion and male sex. There is a high late and early mortality due to upper gastrointestinal bleeding, with a poor long-term prognosis following bleeding due to malignant neoplasms and varices(17,23).

Complications

When gastrointestinal bleeding is not managed in time or adequately, it can have important consequences. In addition, the following complications may occur in individuals with upper or lower gastrointestinal bleeding:

- Infection.
- Shock.
- Respiratory distress.
- Myocardial infarction.
- Death.

Eradication of H pylori should be performed if it is present along with peptic ulcer, this reduces the risk of recurrent ulcer bleeding, it is also advisable to avoid non-steroidal anti-inflammatory drugs (NSAIDs) and use COX-2 inhibitors that present less risk of ulcer bleeding. If it is not possible to avoid NSAIDs, it is indicated to use the lowest dose and duration. Proton pump inhibitors (PPIs) or misoprostol therapy is recommended in combination with NSAIDs. Increased physical activity prevents progression of diverticular disease, just as aspirin and NSAIDs increase the risk of diverticulitis and diverticular bleeding.

CONCLUSIONS

The care of patients with gastrointestinal bleeding requires coordinated and efficient interprofessional cooperation. Upper gastrointestinal bleeding (UGH) is more common compared to



lower gastrointestinal bleeding (LGE). We have to recognize the importance of the clinical manifestations of each of these and the differential diagnoses of these alterations, in order to have a proper diagnosis and therefore start the correct treatment in a timely manner and improve the prognosis of the affected individual. For treatment, risk stratification is of vital importance as well as an assessment of the appropriate setting for treatment followed by resuscitation and supportive therapy while investigating the underlying cause and attempting to correct it.

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A STUDY ON EXPLORING PERCEPTIONS, ATTITUDES, AND KNOWLEDGE OF YOUNG INDIVIDUALS REGARDING THE DAIRY FARMING INDUSTRY

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ABSTRACT

This research delves into the perceptions, attitudes, and knowledge of young individuals concerning the dairy farming industry, a crucial contributor to the global economy. With the global dairy sector accounting for approximately 14% of the world's agricultural output, understanding the perspectives of the youth becomes imperative. The study, employing a cross-sectional design, surveyed 180 participants aged 18-24 to assess their current perceptions, attitudes, and knowledge levels about dairy farming. Through Likert scale analysis, the research unveils a generally positive view of the ethical treatment of animals and the health benefits of dairy products. However, diverse opinions emerge on the environmental impact, contribution to the rural economy, and the modern image of the industry. Notably, participants exhibit a moderate to positive level of knowledge about various aspects of dairy farming. Regression analysis indicates a significant relationship between perceptions, attitudes, knowledge levels, and participants' willingness to engage in the dairy farming sector. This research equips policymakers, industry stakeholders, and educators with insights to foster positive attitudes, bridge information gaps, and attract the next generation to sustainable practices in the dairy farming industry.

KEYWORDS: Dairy farming, young individuals, perceptions, attitudes, knowledge levels, cross-sectional study, global economy.

INTRODUCTION

The dairy farming industry is a significant contributor to the global economy and plays a vital role in the food industry. According to a recent report by the Food and Agriculture Organization of the United Nations, the global dairy sector accounts for approximately 14% of the world's agricultural output (Springer, 2023). The dairy industry is a major source of livelihood for millions of people worldwide, and it is an essential source of nutrition for billions of people (IFCN Dairy Report 2015).

Understanding young individuals' perceptions, attitudes, and knowledge towards the dairy farming industry is crucial for several reasons. Firstly, it can help identify the factors that influence their decision-making process when it comes to choosing a career in the dairy industry. Secondly, it can help identify the gaps in their knowledge and understanding of the industry, which can be addressed through education and awareness programs (Beecher, et al. 2022). Thirdly, it can help identify the challenges faced by the industry in attracting and retaining young talent, which can be addressed through policy interventions and other measures (Beecher, et al. 2022).

SIGNIFICANCE AND SCOPE

Unveiling the perceptions, attitudes, and knowledge of young individuals regarding the dairy farming industry is of critical importance. By understanding their perspective, we can navigate the challenges within this sector and promote sustainable practices for the future. The findings of this study will equip policymakers, industry stakeholders, and educators with the necessary insights to attract and engage the next generation of dairy farmers. Exploring pre-existing views, knowledge gaps, and influential factors (socio-economic, cultural, educational) will guide targeted interventions that foster positive attitudes and bridge information disparities, ultimately contributing to the continued growth and viability of the dairy farming industry. While acknowledging inherent limitations, such as regional variations and evolving societal sentiments, this study strives to provide valuable insights applicable to diverse audiences, propelling positive change within the realm of dairy farming and ensuring its future success.

RESEARCH OBJECTIVES

- Objective 1: Assess current perceptions and attitudes
- Objective 2: Evaluate knowledge levels about dairy farming
- Objective 3: Explore factors influencing perceptions and willingness to engage



HYPOTHESIS OF THE STUDY

- H0: There is no significant relationship between Perceptions and Attitudes, Knowledge Levels about Dairy Farming, and the outcome variable.

REVIEW OF LITERATURE

The research authored by Geza et al. (2021) examines the obstacles and prospects of engaging young individuals in agricultural activities in Africa. The researchers discovered that current agricultural interventions prioritise output and offer insufficient revenue for low-income individuals, as well as inadequate social safety. Additionally, it was discovered that the younger generation holds negative views regarding the potential of agriculture to enhance their quality of life. The study conducted by Magagula and Tsvakirai (2020) examines the characteristics of how young individuals perceive and how these views impact their intentions to participate in agripreneurship. The survey findings indicate that the young individuals had favourable economic perceptions of the agricultural industry. Consentino F. et al. (2023) This research examines the negative aspects that impact the way young individuals perceive agriculture by doing a literature review of the last decade. The study conducted by Sullivan et al. (2022) assesses the viewpoints of animal science students about animal welfare in order to ascertain whether these viewpoints vary depending on the animal categories. The paper authored by Marriott and Cassaday (2022) examines the influence of ideas about animals, their perceived emotional attractiveness, and persons' moral capabilities on attitudes towards animal utilisation.

Huambachano et al. (2022) examine the involvement of young individuals as participants in knowledge networks related to food systems. It highlights the importance of implementing policies and practices that promote knowledge connected to food systems in two specific ways: by making formal education systems more accessible to all and by enhancing grassroots research and innovation networks. In their 2019 study, Yami et al. discuss the successes and limitations of interventions aimed at addressing the disparities in young people's ambitions to engage in agribusiness, their access to resources like as land, funding, and information, and their participation in collective action. The document titled "Promoting Youth Engagement and Employment in Agriculture and Food Systems" was published by the Food and Agriculture Organisation (FAO) with no specified date. This research examines several policy areas, including jobs, resources, knowledge, and innovations, in order to provide recommendations for improving the involvement of young people in food systems and helping to achieve the aims of SDG 2 and the overall 2030 Agenda for Sustainable Development. The authors Huambachano et al. published a paper in 2022. This report examines the difficulties and potential advantages of including young people in the agricultural sector in Africa. The researchers discovered that current agricultural interventions prioritise output and result in insufficient income for low-income individuals, as well as inadequate social protection.

The study conducted by Akosah-Twumasi et al. (2018) offers a comprehensive analysis of the factors that impact the job decisions of young individuals in both collectivist and individualistic cultural contexts. The researchers discovered that young individuals from collectivist cultures were primarily influenced by familial expectations, whereas personal curiosity had a significant role in shaping job choices in individualistic environments. This study conducted by Sharif et al. (2019) investigates the influence of many factors, such as mothers, dads, tutors, future income, future status, and societal difference, on the profession choices of young students. These elements are collectively referred to as "Influencers" in the study. This research examines multiple drivers of job decision-making, such as family, teachers, peers, and career interest. The objective of this study conducted by Upadhaya et al. (2021) is to ascertain the factors that determine farmers' involvement in watershed management. The researchers discovered that farmers' engagement was positively influenced by various factors, including access to information from both public and private sources, knowledge and attitudes towards techniques for reducing nutrient loss, proximity of farms to water bodies, and the availability of cost-share and technical help. The study conducted by Rizzo et al. (2023) offers a thorough examination of the various elements that influence the behaviour of farmers in industrialised nations when it comes to adopting innovative practices. The researchers discovered that some attributes of innovation promote the process of adopting innovation, together with individual psychological and socio-demographic traits. Zhao et al. (2021) This study examines the prevalent elements that impact the acceptance of sustainable technologies in the field of agriculture. The components can be classified into six distinct areas: socioeconomic, agroecological, institutional, informational, purposeful, and perceived aspects of technology.

In conclusion, the reviewed literature provides valuable insights into the perceptions, attitudes, knowledge levels, and influencing factors of young individuals regarding the dairy farming industry. These findings can guide the development of interventions to promote youth engagement in this sector.

RESEARCH METHODOLOGY

1. Study Design

- The research followed a cross-sectional design to assess the perceptions, attitudes, and knowledge of young individuals regarding the dairy farming industry.

2. Population and Sample

- The target population consisted of young individuals aged 18-24 years. Convenience sampling was employed, selecting 180 participants from various backgrounds.

3. Data Collection

- *Instrument:* A structured questionnaire was utilized as the primary data collection tool.



- *Questionnaire Design:* The questionnaire incorporated Likert scale questions to capture nuanced responses. Participants were asked to express their agreement or disagreement on a scale from "Strongly Disagree" to "Strongly Agree."
- *Domains Covered:* The questionnaire included sections on demographics, current perceptions and attitudes, knowledge levels about dairy farming, and factors influencing perceptions and willingness to engage.
- *Likert Scale Analysis:* Responses to Likert scale questions were analyzed using both percentages and mean scores to provide a comprehensive understanding of participants' attitudes, perceptions, and knowledge levels.
- *Regression Analysis:* The relationship between Perceptions and Attitudes, Knowledge Levels about Dairy Farming, and the outcome variable was explored using linear regression. Model fit measures, omnibus ANOVA tests, and model coefficients were employed to interpret the regression analysis.

4. Data Analysis

- *Descriptive Analysis:* Demographic information was analyzed using descriptive statistics, presenting counts and percentages for gender and age distribution.

RESULT & FINDINGS

Table 1: Gender & Age

Gender	Counts	% of Total
Female	97	53.9 %
Male	83	46.1 %
Age	Counts	% of Total
18-21	100	55.6 %
22-24	40	22.2 %
Above 24	40	22.2 %

The provided data presents information on the distribution of respondents based on gender and age categories. In terms of gender, the majority of respondents are female, comprising 53.9% of the total sample, while males constitute 46.1%. This suggests a relatively balanced representation of gender in the surveyed population, although there is a slight skew towards female respondents.

When examining the distribution by age, the data is divided into three categories: 18-21, 22-24, and above 24. The largest proportion of respondents falls within the 18-21 age group, accounting for 55.6% of the total sample. The 22-24 age group and the above 24 age group each represent 22.2% of the respondents.

Table 2: Assess Current Perceptions and Attitudes	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
I believe the dairy farming industry treats animals ethically.	2.2 %	0.6 %	8.9 %	45.6 %	42.8 %	4.26
Dairy products are an essential part of a healthy diet.	2.2 %	1.7 %	16.7 %	42.2 %	37.2 %	4.11
The environmental impact of the dairy farming industry is a major concern.	5.0 %	3.3 %	23.9 %	48.9 %	18.9 %	3.73
Dairy farmers are contributing positively to the rural economy.	4.4 %	7.8 %	30.0 %	40.6 %	17.2 %	3.58
The dairy farming industry has a modern and innovative image.	2.2 %	5.6 %	30.0 %	42.8 %	19.4 %	3.72

Table 2 presents the responses of participants regarding their current perceptions and attitudes towards the dairy farming industry. The data is structured in a Likert scale format, ranging from "Strongly Disagree" to "Strongly Agree," with corresponding percentages for each response category and the mean score provided for each statement.

The first statement, "I believe the dairy farming industry treats animals ethically," indicates that a significant portion of respondents (45.6%) agrees with this statement, while a considerable percentage (42.8%) strongly agrees. This suggests a generally positive perception of the ethical treatment of animals in the dairy farming industry. The mean score of 4.26 further supports this, reflecting a favorable overall attitude.



For the statement "Dairy products are an essential part of a healthy diet," a substantial portion of respondents (42.2%) agrees, with an additional 37.2% expressing a strong agreement. This indicates a predominant positive perception regarding the health benefits of dairy products. The mean score of 4.11 reinforces the overall favorable attitude towards the essential role of dairy products in a healthy diet.

Regarding the environmental impact of the dairy farming industry, the responses are more varied. While 48.9% agree that the environmental impact is a major concern, a significant percentage (23.9%) remains neutral. This suggests a diversity of opinions on this particular aspect. The mean score of 3.73 reflects a moderate level of concern on average.

For the statement "Dairy farmers are contributing positively to the rural economy," respondents show a mixed perspective. While 40.6% agree, a notable proportion (30.0%) remains neutral. This indicates some ambiguity in the perceived contribution of dairy

farmers to the rural economy. The mean score of 3.58 suggests a somewhat positive but not overwhelmingly strong perception.

Lastly, regarding the modern and innovative image of the dairy farming industry, 42.8% agree, and 30.0% are neutral. This implies that a substantial portion sees the industry as modern and innovative, while others may not hold a firm opinion. The mean score of 3.72 aligns with a moderately positive perception overall.

In conclusion, the survey results reflect a generally positive view of the ethical treatment of animals and the health benefits of dairy products. However, there is more variability in perceptions related to environmental impact, the contribution of dairy farmers to the rural economy, and the modern image of the industry. The mean scores provide a quantitative measure of these perceptions, aiding in the overall understanding of attitudes towards the dairy farming industry among the surveyed participants.

Table 3: Evaluate Knowledge Levels about Dairy Farming	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
I understand the different processes involved in dairy milk production.	3.9 %	8.9 %	27.2 %	38.3 %	21.7 %	3.65
I am familiar with the environmental impact of dairy farming practices.	3.3 %	3.9 %	25.6 %	50.0 %	17.2 %	3.74
I know about the economic factors affecting the dairy farming industry.	5.0 %	1.7 %	26.7 %	45.6 %	21.1 %	3.76
I am aware of the different types of dairy farms (e.g., organic, conventional).	3.3 %	5.6 %	29.4 %	43.3 %	18.3 %	3.68
I understand the role of technology in modern dairy farming.	3.3 %	4.4 %	26.1 %	43.3 %	22.8 %	3.78

Table 3 provides insights into participants' knowledge levels about dairy farming across various dimensions. Each statement in the table represents a specific aspect of knowledge, with responses ranging from "Strongly Disagree" to "Strongly Agree," along with corresponding percentages and mean scores.

The first statement, "I understand the different processes involved in dairy milk production," indicates that a substantial portion of respondents (38.3%) agrees, and an additional 27.2% is neutral. This suggests a moderate level of understanding about dairy milk production processes, as reflected in the mean score of 3.65.

For the statement "I am familiar with the environmental impact of dairy farming practices," responses are more varied. Half of the participants (50.0%) agree, while 25.6% remain neutral. This suggests a relatively higher level of awareness about the environmental impact of dairy farming practices. The mean score of 3.74 supports this perception.

Regarding knowledge about economic factors affecting the dairy farming industry, 45.6% of respondents agree, and 26.7% are neutral. This indicates a positive but not unanimous understanding of the economic aspects of dairy farming. The

mean score of 3.76 suggests a moderately positive level of knowledge.

When it comes to awareness of different types of dairy farms, such as organic and conventional, 43.3% agree, and 29.4% are neutral. This implies a relatively moderate level of familiarity with the diverse types of dairy farming. The mean score of 3.68 aligns with this moderate level of knowledge.

Lastly, in understanding the role of technology in modern dairy farming, 43.3% agree, and 26.1% are neutral. This suggests a reasonably positive perception of knowledge about the technological aspects of dairy farming, supported by the mean score of 3.78.

In conclusion, the participants generally exhibit a moderate to positive level of knowledge about various aspects of dairy farming. While there is a notable understanding of the environmental impact and technology's role, some areas, such as processes in dairy milk production and economic factors, demonstrate a more diverse range of knowledge levels. The mean scores offer a quantitative assessment of participants' knowledge,



aiding in the overall interpretation of their awareness and comprehension of dairy farming practices.

Table 4: Factors Influencing Perceptions and Willingness to Engage	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree	Mean
My upbringing or family background influences my views on the dairy farming industry.	4.4 %	5.6 %	21.7 %	51.1 %	17.2 %	3.71
My education or access to information about the dairy farming industry has shaped my opinions.	3.3 %	3.3 %	17.2 %	45.6 %	30.6 %	3.97
My peers and social circle have an impact on my perception of the dairy farming industry.	2.2 %	2.2 %	20.6 %	41.7 %	33.3 %	4.02
Media portrayals of the dairy farming industry have influenced my views.	2.8 %	2.2 %	26.7 %	40.0 %	28.3 %	3.89
I would consider a career or business venture in the dairy farming industry.	3.9 %	3.3 %	19.4 %	40.0 %	33.3 %	3.96

Table 4 explores the various factors influencing participants' perceptions and willingness to engage with the dairy farming industry. Each statement in the table represents a different influencing factor, with responses ranging from "Strongly Disagree" to "Strongly Agree," along with corresponding percentages and mean scores.

The first statement, addressing the influence of upbringing or family background on views about the dairy farming industry, reveals that a substantial majority of participants (51.1%) agree, indicating that family background significantly impacts their perceptions. The mean score of 3.71 supports the idea that familial influences play a noteworthy role in shaping views on the industry.

The second statement pertains to education and access to information shaping opinions about the dairy farming industry. A considerable portion of respondents (45.6%) agrees with this statement, reflecting the impact of education and information on their opinions. The high mean score of 3.97 underscores the influential role of education and information in shaping perceptions.

The third statement addresses the influence of peers and social circles on participants' perceptions of the dairy farming industry. A substantial majority (41.7%) agrees, emphasizing the social aspect's impact on their views. The mean score of 4.02 suggests a significant influence of peers and social circles in shaping perceptions.

Regarding media portrayals, 40.0% of participants agree that media has influenced their views on the dairy farming industry. The mean score of 3.89 indicates a moderate impact of media portrayals on participants' perceptions.

Lastly, the statement about considering a career or business venture in the dairy farming industry reveals that 40.0% of

respondents agree. This suggests a notable percentage of participants open to engaging in the industry, as supported by the mean score of 3.96.

In conclusion, the findings suggest that various factors significantly influence participants' perceptions and willingness to engage with the dairy farming industry. Family background, education, peer influence, media portrayals, and the openness to a career in the industry all contribute to shaping participants' attitudes. The mean scores provide a quantitative measure of the strength of these influences. Overall, these insights can be valuable for industry stakeholders and policymakers in understanding the multifaceted nature of factors that impact public perceptions and engagement with the dairy farming sector.

TESTING OF HYPOTHESIS

H0: There is no significant relationship between Perceptions and Attitudes, Knowledge Levels about Dairy Farming, and the outcome variable.

Result

The linear regression model was used to examine the factors influencing perceptions and willingness to engage in a study related to dairy farming. The overall model fit was assessed using the overall model test, which revealed a significant result ($F = 104$, $df1 = 2$, $df2 = 177$, $p < 0.001$). The model explained a substantial portion of the variance in the dependent variable, as indicated by the coefficient of determination ($R^2 = 0.539$), and the model's overall significance.

Moving on to the omnibus ANOVA test, which decomposed the sum of squares into different components, the results showed that both Perceptions and Attitudes ($F = 8.78$, $p = 0.003$) and Knowledge Levels about Dairy Farming ($F = 55.23$, $p < 0.001$) significantly contributed to the variance in the dependent variable. The Residuals, representing unexplained variance, had a mean square of 7.36.



Examining the model coefficients, the intercept was found to be 4.701 (SE = 1.1121, $p < 0.001$), indicating the estimated baseline value when both predictor variables are zero. Perceptions and Attitudes had a positive coefficient of 0.202 (SE = 0.0681, $p = 0.003$), suggesting that as perceptions and attitudes increase, the dependent variable is expected to increase. Similarly, Knowledge Levels about Dairy Farming had a positive coefficient of 0.547

(SE = 0.0736, $p < 0.001$), indicating that higher knowledge levels are associated with an increase in the dependent variable.

In conclusion, the regression model demonstrates that both Perceptions and Attitudes and Knowledge Levels about Dairy Farming significantly contribute to predicting perceptions and willingness to engage in the context of the study. The positive coefficients for both predictors suggest a positive relationship with the dependent variable.

Linear Regression						
Table 5: Model Fit Measures						
Model	R	R ²	Overall Model Test			
			F	df1	df2	p
1	0.734	0.539	104	2	177	< .001

Table 6: Omnibus ANOVA Test					
	Sum of Squares	df	Mean Square	F	p
Perceptions and Attitudes	64.7	1	64.68	8.78	0.003
Knowledge Levels about Dairy Farming	406.7	1	406.73	55.23	< .001
Residuals	1303.4	177	7.36		
<i>Note.</i> Type 3 sum of squares					

Table 7: Model Coefficients - Factors Influencing Perceptions and Willingness to Engage						
Predictor	Estimate	SE	95% Confidence Interval		t	p
			Lower	Upper		
Intercept	4.701	1.1121	2.5059	6.895	4.23	< .001
Perceptions and Attitudes	0.202	0.0681	0.0675	0.336	2.96	0.003
Knowledge Levels about Dairy Farming	0.547	0.0736	0.4019	0.693	7.43	< .001

DISCUSSION

The findings of this study shed light on the perceptions, attitudes, and knowledge of young individuals regarding the dairy farming industry. These insights are crucial for understanding the factors that influence decision-making processes related to careers in the dairy industry, addressing knowledge gaps, and identifying challenges in attracting and retaining young talent.

- **Perceptions and Attitudes:** The results indicate generally positive perceptions regarding the ethical treatment of animals in the dairy farming industry and the essential role of dairy products in a healthy diet. However, there is more variability in perceptions related to the environmental impact, the contribution of dairy farmers to the rural economy, and the modern image of the industry. The nuanced insights provided by mean scores help gauge the strength of these attitudes. This aligns with your findings of variability in perceptions related to the environmental impact and the modern image of the industry (Ly et al., 2021).
- **Knowledge Levels about Dairy Farming:** Participants demonstrated a moderate to positive level of knowledge

about various aspects of dairy farming. While there is a notable understanding of the environmental impact and technology's role, there are diverse knowledge levels in areas such as dairy milk production processes and economic factors. The mean scores provide a quantitative measure of participants' awareness and comprehension. This is somewhat consistent with your findings of a moderate to positive level of knowledge among participants (Singh et al., 2018) (Mali et al., 2014)

- **Factors Influencing Perceptions and Willingness to Engage:** Family background, education, peers, media, and openness to a career in the industry were identified as significant factors influencing participants' perceptions and willingness to engage with the dairy farming sector. The mean scores quantify the strength of these influences, emphasizing the importance of considering multiple factors when formulating strategies to attract young individuals to the industry.
- **Regression Analysis:** The regression analysis confirmed that both Perceptions and Attitudes and Knowledge Levels about Dairy Farming significantly contribute to predicting



perceptions and willingness to engage. The positive coefficients suggest that as perceptions and attitudes, as well as knowledge levels, increase, the willingness to engage in the dairy farming industry also increases.

CONCLUSION

In conclusion, this study provides valuable insights into the complex dynamics surrounding young individuals' perceptions, attitudes, and knowledge regarding the dairy farming industry. The positive aspects, such as ethical treatment of animals and the essential role of dairy products, can be leveraged in educational and promotional initiatives. The variability in perceptions and knowledge levels highlights the need for targeted interventions to address specific areas of concern or misunderstanding.

The identified factors influencing perceptions and engagement, including familial influences, education, peer networks, media portrayals, and career openness, collectively contribute to the intricate decision-making processes of young individuals. Policymakers, industry stakeholders, and educators can utilize these findings to tailor interventions that resonate with the target demographic, fostering a more informed and positive outlook toward the dairy farming sector.

While the study provides valuable insights, it is essential to acknowledge its limitations. Convenience sampling may introduce bias, limiting the generalizability of the findings. Additionally, the cross-sectional nature of the study restricts the establishment of causal relationships. Future research could employ more diverse sampling methods and longitudinal designs to enhance the robustness of the findings.

In summary, understanding and addressing the perceptions, attitudes, and knowledge of young individuals are pivotal steps in ensuring the continued growth and sustainability of the dairy farming industry. This study contributes to the existing body of knowledge and provides a foundation for future research and targeted interventions in this critical sector.

Implications and Recommendations

The study's implications extend to policymakers, industry stakeholders, and educators, providing a foundation for targeted interventions. Addressing knowledge gaps, shaping positive perceptions, and understanding influential factors are crucial for promoting sustainable practices and attracting the next generation of dairy farmers.

Limitations and Future Directions

Acknowledging limitations, such as sampling bias and the cross-sectional nature of the study, opens avenues for future research. Longitudinal studies and diverse sampling strategies could enhance the generalizability of findings.

In conclusion, this study contributes valuable insights into understanding and influencing the perceptions, attitudes, and knowledge of young individuals regarding the dairy farming

industry. The multifaceted nature of these factors necessitates collaborative efforts to ensure the sector's continued growth and success.

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CHOOSING THE RIGHT COLLEGE COURSES THROUGH CAREER GUIDANCE PROGRAM (CGP) MODULES AND WORK IMMERSION (WI)

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ABSTRACT

This study was conducted to determine if the conduct of Career Guidance Program (CGP) Modules and Work Immersion (WI) are really helping Grade 12 learners in choosing their right college courses. The researcher utilized descriptive research design. Then, he randomly selected the respondents from the two (2) sections of Grade 12 Science, Technology, Engineering and Mathematics (STEM) learners of Los Baños Senior High School (LBSHS) S. Y. 2018 - 2019. In addition to this, four (4) teachers were also chosen as additional respondents. A researcher made a questionnaire and distributed to the forty – two (42) chosen respondents. Simple statistics like Frequency and Percentage were used to get the analysis of data.

The Career Guidance Program (CGP) Modules and Work Immersion (WI) were found to provide help in choosing the college courses of Grade 12 STEM students. This is reflected on the significant learnings of the respondents. It is also visible in the identified help or assistance that they rendered to the respondents. In general, the courses taken by Grade 12 STEM students are related to their Track and Strand which are Academic and STEM respectively. This is denoted by thirty - six (36) responses or equivalent to 94.74 % the total responses. Most of the courses that they intend to take are related to Science and Mathematics. The learners are also becoming more involved in making the decisions of what particular college course they will pursue. It is visible in the percentage of their involvement particularly twelve (12) responses or 31.58 % for the child and twenty- two (22) or 57.89 % for both child and parents.

It is also recommended that in the conduct of CGP Modules, consider having more self- assessment activities, and more reading and oral activities like sharing of outputs. Allot enough time to execute the modules to the SHS students. In the conduct of Work Immersion, try to make the time longer, have more exposure to actual field works and assign the students to institutions where their interests could be enhanced. In addition, other school programs or activities are suggested in order to augment the right career choices of SHS students like symposia or seminars about career path and opportunities, job fair, and organize club like peer educators or counselors club through the guidance counselors or advocates. And finally intensify the Counselling Program for SHS students focused on career pathing.

I. INTRODUCTION

Choosing a Senior High School Track and Strand is one of the problems encountered by Grade 10 learners. That is why DepEd Order No. 41 S. 2015, Set of Guidelines on the Senior High School (SHS) Career Guidance Program and Early Registration was issued by the Department of Education. The objective is to assist the SHS entrants in making informed decisions regarding their choice of track and promote awareness in the importance of choosing a track that suits their skills and interests that matches the available resources and needs of the society. And the SHS Career Guidance Program (CGP) Modules are given to the Grade 10 students by their respective class advisers.

However, despite of having CGP modules in grade 10, Career Guidance Week and series of orientations given to students, parents and teachers. There are still confusions on their part most especially the students who will go to SHS. Likewise related problem is encountered by the Grade 11 and Grade 12 learners

because there are some who are still confused on what college course they are going to pursue.

In connection to this the Department of Education (DepEd) issued DepEd Memorandum No. 169, Implementation of Grade12 Career Guidance Modules. The intention is to determine a clear directional exit after Senior High School (SHS). And another objective is to apply academic employment readiness skills in work – based learning institutions such as internships, shadowing and mentoring. In order to further reinforce this program another issuance was made by DepEd. DepEd Memorandum No. 28 S. 2019, Dissemination of RA 11206, An Act Establishing a Career Guidance and Counselling Program for all Secondary Schools and Appropriating Funds Therefor. This institutionalized the Career Guidance and Counselling Program in Secondary schools in order to help the learners in choosing their future career.

Another program is for SHS is Work Immersion which is stated in DepEd Order No. 30 s. 2017, Guidelines for Work Immersion.



Work immersion intends to develop the learners' life and career skills. And it will also prepare them to make decisions on their post - secondary education or employment. Specifically it aims to appreciate the importance and application of the principles and theories learned in schools. The second objective is to enhance their technical knowledge and skills. The third purpose is to enrich their communication and human relation skills. Lastly, is to develop good work habits, attitude, appreciation and respect for work.

This study intends to know the extent of help or assistance given by the conduct of Career Guidance Program and Work Immersion to Grade 12 learners. Most importantly, in the aspect of choosing the right college course which is suited to their knowledge, skills, interests, capabilities and resources.

II. LITERATURE REVIEW

There are literature cited about Career Guidance Program and Work Immersion that help students in the secondary level to make an important decision in choosing the right career that they will pursue in the rest of their lives.

It is emphasized in RA 11206 that career guidance and counselling program are institutionalized in order to provide proper direction in pursuing subsequent college education. In addition to this will equip high school students to make educated career decisions and expose them to relevant labor market. And lastly to ensure that the graduates of tertiary education will be able to meet the requirements of government, industry and economy.

As stated in DepEd Order No. 30 S. 2017, work immersion is a key feature in the SHS curriculum. It can be conducted in many ways using varied models. One of the goals of K to 12 program is to develop in learners the competencies, values and work ethics relevant in pursuing further education and or joining the world of work.

Our educational system should prepare the learners at least from Grade 10 onward when it comes to choosing their career paths. In order to achieve this, the schools should allot the beginning of every year to career guidance. This will allow the students to choose the subjects that are in line with their future plans. Moreover, career guidance could provide confidence among the students on what they want in their future (Mhlanga 2011). This is the same in the Philippines who venture on the K - 12 Curriculum highlighting the Senior High School Program. That's why the students need functional SHS Career Guidance Program for them to choose the right SHS career track.

Career Guidance teachers have an important role to play in the career choices of high school learners by presenting them with information on different careers so that informed decisions can be made. It follows that the amount and quality of information that such teachers have and their views of a career may have either a positive or negative influence on learners' choices in this instance, nursing as a career choice (Sathekge 2014). This

reaffirms that the teacher - advisers and the guidance counsellors have an important role of making the necessary career information available to the students. It will assist them in making the right decisions in choosing college courses.

According to **Lugulu and Kipkoech (2011)**, the level of career guidance and counselling provided in high schools was neither well-planned nor organized. In addition, there were no clear policies within which the service is provided. Students' degree programme decisions were guided by other factors rather interests. Universities do not sufficiently market degree program for secondary schools. This only means that the students need proper orientation in order to have right career choices. That the parents are just providing the needed assistance as well as their teachers. But the students must have the final decision regarding the College course that they want to take.

As mentioned by **Watts (2013)**, career guidance and orientation is strongly relevant to TVET Program, but its relationship to such programme has been under explored and is still weakly developed in many countries, especially middle and low income countries. It is critically important prior to the entry to TVET Program, to ensure that TVET options are considered by a wider range of learners and that learners' decisions related to them are well - informed and well thought through. In this connection, the present study has similarities in terms of aiming a well - informed decisions in choosing the right college courses which match their skills, interests, abilities, available resources and needs of our society.

The studies mentioned above were the bases of this study and give us ideas on how our students can be helped in choosing the right career choices in College through a functional and effective Career Guidance Program and Work Immersion.

III. RESEARCH QUESTIONS

This is study sought to answer the following questions:

1. What are the essential learnings that Grade 12 STEM students got from the conduct of the Career Guidance Program (CGP) Modules?
2. Do the administration of Career Guidance Program Modules help Grade 12 STEM students in deciding on what course they will pursue in college?
3. What are the essential learnings Grade 12 STEM students gained from their Work Immersion (WI) experiences?
4. Do the conduct of Work Immersion help Grade 12 STEM students in deciding on what course they will pursue in college?
5. Are the chosen college courses of Grade 12 STEM students related to their Track and Strand?
6. Who decide in choosing the college course of Grade 12 STEM students?



IV. SCOPE AND LIMITATION

This study is focused in determining if the conduct of work immersion and career guidance program have effect on the courses that the learners will be pursuing in college or tertiary level. Grade 12 STEM learners were the respondents of this study because they are the prime recipients of the aforementioned school programs. This include their class advisers, designated guidance counselor and work immersion focal person.

counselor and one (1) work immersion focal person were also included as the respondents of this study.

B. DATA COLLECTION

The research instrument that was used for collecting the data was a self – made instrument. This questionnaire is intended for STEM students who undergone Work Immersion and Career Guidance Program (CGP) Modules. And there was a separate questionnaire for two (2) grade twelve (12) advisers, one (1) designated guidance counselor and one (1) work immersion focal person.

V. RESEARCH METHODOLOGY

A. SAMPLING

The target participants are the randomly selected thirty eight (38) STEM students from Grade - 12 Newton and Grade - 12 Archimedes of Los Baños Senior high School. They were deployed from the six (6) work immersion partner institutions namely Department of Science and Technology (DOST) – Region IV–A, Forest Product and Research Development Institute(FPRDI), Department of Public Work and Highways (DPWH) – Los Baños, Environmental Research and Development Bureau(ERDB), Bureau of Plant Industry(BPI) and Healthserv. In addition to this, two (2) grade twelve (12) advisers, one (1) designated guidance

C. ETHICAL ISSUES

The data gathered were based on descriptive questions where the learners have the freedom to answer based on their own knowledge and experiences regarding career guidance modules and work immersion. Selected teachers also answered a separate set of questions based on their involvement in the said school programs. They were encouraged to answer the questions as honest as they can. Their answers were also treated with utmost confidentiality. And the researcher ensures that respect for intellectual property right is being observed.

D. PLAN FOR DATA ANALYSIS

Data	Statistical Tool
Survey from Grade 12 STEM students	Frequency and Percentage

E. TIMETABLE

ACTIVITIES	JAN.	FEB.	MAR.	APR.	MAY
Approval of Request Letter for Conducting Research	/				
Submission and Approval of Research Proposal to District and Division Office		/	/		
Data Gathering			/		
Data Analysis				/	
Finalization of Manuscript and Terminal Report					/

VII. RESULTS AND DISCUSSIONS

Table 1. Essential Learnings from the Conduct of Career Guidance Program (CGP) Modules

Responses	Frequency	Percentage (%)
Deciding on what career path he/she will pursue	17	44.74
Realized his/her passion and calling	2	5.26
Understand the right curriculum exit	6	15.79
Learned to weigh his/her wants and needs in college	4	10.53
Identified his/her strengths and weaknesses	4	10.53
Knowing my self-more	2	5.26
Improved his/or her personality or character	2	5.26
Exposed in different fields	1	2.63
Total	38	100



Table 1 shows that most of the respondents answered that they were helped in **“Deciding what career path they will pursue”**. It corresponds to **seventeen (17) respondents or 44.74 %** of the responses. The next most frequent answer is **“Understand the right curriculum exit”**. This is equivalent to **six (6) responses**

or 15. 79% of the total responses. The least frequent answer is **“Exposed in different fields.”** Only one (1) response is recorded or 2. 63 % of the total responses. This means that they realized the value or importance of Career Guidance Program Modules in choosing their future career.

Table 2. Responses if the students were helped by the Conduct of Career Guidance Program (CGP) Modules in choosing their College Courses

Responses	Frequency	Percentage (%)
Yes	33	86.84
No	5	13.16
Total	38	100

Table 2 reveals that **thirty three (33) respondents or 86. 84% are convinced that they were helped** by the conduct of CGP modules in deciding for their college courses. However, there are **five (5) or 13.16 % of the respondents** who said that they are

not helped by these CGP Modules particularly in deciding for their college courses. This table confirmed that the respondents are really convinced that they were really helped by the CGP Modules.

Table 3. Help Gained from the Conduct of Career Guidance Program(CGP) Modules

Responses	Frequency	Percentage (%)
Knowing the right steps in choosing his college course or exit	2	6.90
Gained more self - confidence	1	3.45
Giving activities that will push her in her chosen course	1	3.45
Identified her strengths and weaknesses	2	6.90
Realized the right college course/s	10	34.45
Know more about my interests and skills	13	44.83
Total	29	99.98

Table 3 exhibits that most of the help gained from the Conduct of Career Guidance Program (CGP) Modules are **“ Know more about my interests and skills”** which is **44. 93%** of the total responses. And **“Realized the right College Courses”** which is **34.45 %** of the total responses. This table further signifies that the respondents were able to identify the help that they gained from these CGP Modules.

Three (3) of the answers were confirmed in the answers of their class advisers particularly **knowing the right steps in choosing his or her college course or exit, identified his or her strengths and weaknesses and to know more about their interests and skills**. This supports the claimed of the learners regarding the helped given by the conduct of CGP modules.

Table 4. Essential Learnings from the Conduct of Work Immersion

Responses	Frequency	Percentage (%)
How to act professionally in the workplace	14	36.84
Ethics	5	13.16
Technical things needed in the workplace	6	15.79
Dedication, Passion and Persistence in work	5	13.16
Nature of Work	2	5.26
Be more active and socialize in the workplace	5	13.16
Ways of Plant Propagation	1	2.63
Total	38	100

Table 4 shows that most of the respondents answered that they learned **“How to act professionally in the workplace”**. It corresponds to **fourteen (14) respondents or 36.84 %** of the responses. The next most frequent answer is they learned **“Technical things needed in the workplace”**. This is equivalent

to six (6) responses or 15. 79% of the total responses. The least frequent answer is **“Ways of Plant Propagation”**. Only one (1) response is recorded or 2.63 % of the total responses. This also confirmed that Work Immersion is also vital in choosing their future career.

**Table 5. Responses if the students are helped by Work Immersion**

Responses	Frequency	Percentage (%)
Yes	28	73.68
No	10	26.32
Total	38	100

Table 5 reveals that **twenty eight (28) respondents or 73.68% are convinced that they were helped** by the conduct of Work Immersion in deciding for their college courses. However, there are **ten (10) or 26.32 % of the respondents** who said that they

are not helped by Work Immersion particularly in the aspect of deciding for their college courses. This re-affirmed that Work Immersion experiences are helpful in choosing their future career.

Table 6. Help Gained in Work Immersion Experiences

Responses	Frequency	Percentage (%)
Enhanced their interests in Agriculture	5	22.73
Overview of Forest & Non – Forest Products	1	4.55
Basic in Engineering – related institution	2	9.09
Realized that her passion is medicine	1	4.55
Enhanced his skills	2	9.09
Realized the value of field work and clerical works	3	13.64
Considered other courses in college	1	4.55
Experience various fields in Science	1	4.55
Helped in deciding the course to be taken	4	18.18
Inspired by her supervisor to be a microbiologist	1	4.55
Exposed to different laboratories	1	4.55
Total	22	100.03

Table 6 exhibits that most of the help gained from the Work Immersion are **“Enhanced their interests in Agriculture”** which is **22.73%** of the total responses. And **“Helped in deciding the Course to be taken”** which is **18.18 %** of the total responses. This table made us realized that the respondents are aware of the helped that Work Immersion provided in terms of choosing their college courses.

In fact, four (4) of the answers were confirmed by their work immersion focal person. These were the following: **realized the value of field work and clerical works, experience various fields in Science, exposed to different laboratories and helped in deciding the course to be taken.** This indicates how vital Work Immersion is for Senior High School students on the aspect of choosing their college courses.

Table 7. Preferred College Courses

Responses	Frequency	Percentage (%)
BS Marine Transportation	1	2.63
BS Linguistics	1	2.63
BS Biology	5	13.16
BS Agriculture	4	10.53
BS Physics	1	2.63
BS Agricultural Biotechnology	4	10.53
BS Multimedia Studies	1	2.63
BS Chemical Engineering	5	13.16
BS Computer Science	3	7.89
BS Statistics	2	5.26
BS Industrial Engineering	1	2.63
BS Agricultural Engineering	2	5.26
BS Development Communication	1	2.63
BS Aeronautical Engineering	1	2.63
BS Agribusiness Management	2	5.26
BS Physical Therapy	1	2.63
BS Applied Mathematics	1	2.63
BS Nursing	1	2.63
Military Science	1	2.63
Total	38	99.98



Table 7 shows that top two (2) most preferred courses are BS Biology and BS Chemical Engineering both have five (5) responses or 13.16 % of the total responses. The next top chosen courses are BS Agriculture and BS Agricultural Biotechnology each of them has four (4) responses or 10.53% of the total

responses. It implies that their chosen courses are mostly Science and Math related and are varied in nature. However, there are two (2) courses which are more related to language namely BS Linguistics and BS Development Communication.

Table 8. Preferred Colleges or Universities

Responses	Frequency	Percentage (%)
UP Diliman	2	5.26
UP – Baguio	1	2.63
UPLB	29	76.32
UPOU	1	2.63
Philippine State College of Aeronautics	1	2.63
PMA	1	2.63
*Any College or University in Canada	1	2.63
University of Perpetual Help – Calamba	1	2.63
Maritime College of Asia and Pacific	1	2.63
Total	38	99.99

Table 8 shows that top most preferred University is University of the Philippines (UP) with various campuses such as UPLB, UP – Diliman, UP Baguio and UPOU. But the topmost choice is UPLB with 29 responses or 76.32 % of the total responses. Because

UPLB is the nearest campus to the District of Los Baños where Los Baños Senior High School is located. Which means that this is the most accessible premiere university for the student – respondents.

Table 9. Responses if their chosen college course is related to STEM

Responses	Frequency	Percentage (%)
Yes	36	94.74
No	2	5.26
Total	38	100

Table 9 reflects that **thirty - six (36) respondents or 94.74% are convinced that their courses are related to STEM.** However, there are **two (2) or 5.26 % of the respondents** said that their

courses are not related to STEM. Because they intend to pursue BS Linguistics and BS Development Communication respectively which is also indicated in Table 7.

Table 10. Who decide in choosing their college courses?

Responses	Frequency	Percentage (%)
Child	12	31.58
Parents	4	10.53
Both Child & Parents	22	57.89
Total	38	100

Table 10 indicates that **twenty two (22) respondents or 57.89% are convinced that their decision is made both by them and their parents.** However, there are **twelve (12) respondents or 31.58% of the responses** said that **they are the once who made the decision regarding their college courses.** And there are **four (4) respondents or 10.53 % of the responses** mentioned that **their parents decided for their courses in college.** It is good to see that the learners are becoming more involved in the decision making precisely because their future is at stake. This is important in making well - informed decisions which is one of the goals of conducting CGP.

1. The Career Guidance Program Modules and Work Immersion provided helped in choosing the college courses of Grade 12 STEM students as seen in their significant learnings and the identified help or assistance that they rendered to the respondents.
2. In general, the courses taken by Grade 12 STEM students are related to their Track and Strand. This is denoted by 94.74 % of the total responses.
3. The learners are becoming more involved in making the decisions of what particular college course they will pursue. It is visible in the percentage of their involvement particularly 31.58 % for the child and 57.89 % for both child and parents.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were drawn:



The following recommendations were made:

1. In the conduct of CGP Modules, consider having more self - assessment activities, and more reading and oral activities like sharing of outputs. Allot enough time to execute the modules to the SHS students.
2. In the conduct of work Immersion, try to make the time longer, have more exposure to actual field work and assign the students to institutions where their interests can be enhanced.
3. The other school programs or activities suggested to augment the right career choices of SHS students are symposia or seminars about career path and opportunities, job fairs, and organize club like peer educators or counselors.
4. Intensify the counselling program focused on career pathing.

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ASSESSMENT OF LEARNING DELIVERY IN THE NEW NORMAL: AN INPUT TO SCHOOL INTERVENTION PLAN

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I. INTRODUCTION

One of the principles stated in DO 12 s. 2022 is that in order to ensure that learning continuity will happen the following things must be done: K to 12 Curriculum adjustments, alignment of learning materials, deployment of multiple learning modalities, provision of corresponding training for teachers and school leaders, and proper orientation of parents or guardians of learners. In addition to this, the Department of Education (DepEd) also mandated the adoption of Basic Education - Learning Continuity Plan (BE-LCP), Most Essential Learning Competencies (MELCs) and creation of Learning Resources and Platforms Committee. It also includes that there will be no face-to-face classes until it is safe already.

In relation to the directives given by the Department of Education, the school or academic community needs to find ways in order to make sure that the students will learn through distance learning. The school adopted online and modular modalities considering the survey results which is based on their resources and capacities. That is why we have almost sixty percent (60%) of learners in the online classes and almost forty (40%) in the modular classes.

Due to the existence of Covid – 19 there are many challenges or problems encountered in schools. In line with this, the researcher would like to know these problems and issues. Furthermore, this study intends to know how these problems will be addressed and what are the ways forward that will be suggested by both teachers and students. The researcher would like also to find out how many students will be able to pass and perform in their academics for the second semester.

II. LITERATURE REVIEW

The following readings were considered in this research study: According to Tria (2021), the present COVID-19 pandemic has brought extraordinary challenges and has affected the educational sectors, and no one knows when it will end. Every country is presently implementing plans and procedures on how to contain the virus, and the infections are still continually rising. In the educational context, to sustain and provide quality education despite lockdown and community quarantine, the new normal

should be taken into consideration in the planning and implementation of the “new normal educational policy”. However, the main challenges that emerged were lack of school funding in the production and delivery of modules; students struggle with self- studying, and parents' lack of knowledge to academically guide their children. In conclusion, the research was able to find the existing challenges of the participants in terms of resources, preparedness, and communication. The result of this study may serve as a springboard for the future improvements of the schools' existing programs and guidelines on the implementation of modular distance learning (Dangle and Sumaoang,2021).

It was discovered that during school lockdowns, the teachers made adjustments in teaching and learning designs guided by the policies implemented by the institution. Most of the students had difficulty complying with the learning activities and requirements due to limited or no internet connectivity. Emerging themes were identified from the qualitative responses to include the trajectory for flexible learning delivery, the role of technology, the teaching and learning environment, and the prioritization of safety and security. Scenario analysis provided the contextual basis for strategic actions amid and beyond the pandemic. To ensure teaching and learning continuity, it is concluded that higher education institutions have to migrate to flexible teaching and learning modality recalibrate the curriculum, train the faculty, upgrade the infrastructure, implement a strategic plan and assess all aspects of the plan. (Dayagbil et.al 2021). Moreover, Physical and digital distractions, technological and technical difficulties, institutional and academic issues, and personal and psychological barriers are the challenges that the pupils encounter during online classes. Designating a specific area or gadget for onlineclasses, providing intensive training on how to navigate the online learning platforms, maintaining an open communication between teachers and students, using flipped classroom instruction, strengthening parent-teacher partnership in ensuring guidance while learning from home, and providing guidance and counselling to stakeholders are some of the recommended strategies that are suited to the new normal e-learning modality. This research will serve as a guide for educators and students and researchers in the use of online distance learning (Belgica, et.al).



In the study of (Barrot et. al, 2021), the findings showed that the online learning challenges of college students varied in terms of type and extent. Their greatest challenge was linked to their learning environment at home, while their least challenge was technological literacy and competency. The findings further revealed that the COVID-19 pandemic had the greatest impact on the quality of the learning experience and students' mental health. In terms of strategies employed by students, the most frequently used were resource management and utilization, help-seeking, technical aptitude enhancement, time management, and learning environment control. Implications for classroom practice, policy-making, and future research are discussed. In another study, the different learning modalities are the following: Modular (Printed), Modular (Digitized), Online, Educational TV, Radio-Based Instruction, Home Schooling and Blended Learning. For the cities where modern living is adapted and students and learners have the privilege of having internet connection at home, Online learning is implemented especially for the high schools and colleges but for those living in rural areas or provinces where internet connection is only available for only few, Modular Distance Learning is implemented. Modular Distance Learning is the use of Modules made by teachers with different tasks and learning activities based from the essential learning competencies (Anzaldo, 2021). In another study the teachers' preparedness portrays their adaptability and flexibility toward the upgrading of functions, development of practices, and amendment of policies which can be a huge help in attaining educational goals and objectives. (Agalos, Jefferson C. et.al, 2020).

All these readings gave insights on the learning delivery in the new normal. These supported the idea of assessing the learning delivery in Los Baños Senior High School. This will give us the picture of the possible status or condition of the quality of instruction in the new normal through the distance learning modalities.

III. RESEARCH QUESTIONS

This study sought to answer the following questions:

1. How many students passed and failed in the second semester of SY 2021-2022?
2. How many learners were included in the roster of honors at the end of SY 2021-2022?

E. TIME TABLE

ACTIVITIES	APRIL	MAY	JUNE	JULY	AUGUST
Submit letter request for the conduct of research	/				
Submit Research Proposal		/			
Data Gathering			/	/	
Data Analysis				/	
Finalization of Manuscript and Terminal Report					/

3. What were the problems and issues encountered in the learning delivery?
4. What were the solutions done in order to address the identified problems and issues as regards to the learning delivery?
5. What were the ways forward in terms of learning delivery?

IV. SCOPE AND LIMITATION

This study was focused in the assessment of learning delivery in the new normal. The eighteen (18) teachers of Los Baños Senior High School and twenty (20) students from STEM and HUMSS strands were the respondents of this study. Because the teachers were the ones who executed or delivered the lessons and the students were the recipients of the classroom instruction.

V. RESEARCH METHODOLOGY

A. SAMPLING

The target participants were the eighteen (18) Grade 11 and Grade 12 teachers and twenty (20) STEM and HUMSS students of Los Baños Senior High School for SY 2021-2022.

B. DATA COLLECTION

The data that were considered in this study are the reports on passed and failed for the second semester of SY 2021-2022. In addition to this, the number of honors was based on the submitted list of honors. And lastly the questions were given and answered by the teachers and selected students.

C. ETHICAL ISSUES

The students were randomly chosen from the online and modular classes of Grade 11 HUMSS and STEM. They were gathered in the DCP Room and honestly answered the given questions. The answers were treated with utmost confidentiality.

D. PLAN FOR DATA ANALYSIS

The frequency, percentage and summation of the responses were considered in the given data tables of results and discussion.



VI. RESULTS AND DISCUSSION

Table 1. Passed – Failed Report for Grade 11 in Third Quarter

Sections	No. of Students	No. of Learners Who Passed						No. of Learners Who Failed	
		Outstanding			VS	S	FS	Below 75	At risk of failing in 3rd quarter
		98-100	95-97	90-94	85-89	80-84	75-79		
Einstein	59	0	1	36	14	1	1	6	0
Galileo	41	0	6	29	3	0	0	7	0
Bernoulli	43	0	9	29	3	2	0	0	0
Aristotle	38	0	1	22	9	3	1	2	0
Piaget	52	0	0	10	15	19	8	0	0
Socrates	37	0	5	22	3	3	2	2	2
Total	270	0	22	148	47	28	12	17	2

Table 1 showed that 268 passed the third quarter in Grade 11 while there were two (2) students who failed in their general average. This further implies that 99.26 % of the students in Grade 11 passed the third quarter.

Table 2. Passed – Failed Report for Grade 12 in Third Quarter

Sections	No. of Students	No. of Learners Who Passed						No. of Learners Who Failed	
		Outstanding			VS	S	FS	Below 75	At risk of failing in the 3rd quarter
		98-100	95-97	90-94	85-89	80-84	75-79		
Archimedes	58	0	4	38	12	4	0	0	0
Darwin	56	0	4	31	18	3	0	0	0
Newton	40	0	1	18	17	3	1	0	0
Curie	38	0	2	20	15	1	0	0	0
Heraclitus	43	0	5	21	9	6	2	0	0
Confucius	41	0	0	16	14	10	1	0	0
Total	276	0	16	144	85	27	4	0	0

Table 2 showed that 276 passed the third quarter in Grade 12 while there no students who failed in their general average. This also implies that 100% of Grade 12 students passed the third grading period.

Table 3: Passed – Failed Report for Grade 11 in Fourth Quarter

Sections	No. of Students	No. of Learners Who Passed						No. of Learners Who Failed	
		Outstanding			VS	S	FS	Below 75	At risk of failing in 4th quarter
		98-100	95-97	90-94	85-89	80-84	75-79		
Einstein	59	0	2	44	11	2	0	0	0
Galileo	41	0	18	19	4	0	0	0	0
Bernoulli	43	0	18	22	2	1	0	0	0
Aristotle	38	0	3	20	8	6	1	0	0
Piaget	52	0	0	14	22	11	5	0	0
Socrates	37	0	6	19	4	6	2	0	0
Total	270	0	47	138	51	26	8	0	0

Table 3 showed that 270 who passed the fourth quarter in Grade 11 while there were no students who failed in their general average. This also implies that 100 % of Grade 11 students passed the fourth grading period.


Table 4: Passed – Failed Report for Grade 11 in Fourth Quarter

Sections	No. of Learners Who Passed							No. of Learners Who Failed	
	No. of Students	Outstanding			VS	S	FS	Below 75	At risk of failing in the 4th quarter
		98-100	95-97	90-94	85-89	80-84	75-79		
Archimedes	58	0	10	38	10	0	0	0	0
Darwin	56	1	4	38	10	3	0	0	0
Newton	40	0	3	25	9	2	1	0	0
Curie	38	0	2	19	17	0	0	0	0
Heraclitus	43	0	14	19	7	1	2	0	0
Confucius	41	0	0	18	14	8	1	0	0
Total	276	1	33	157	67	14	4	0	0

Table 4 showed that 276 passed the third quarter in Grade 12 while there no students who failed in their general average. This

also implies that 100% of Grade 12 students passed the fourth grading period.

Table 5. Number of Honors for SY 2021-2022

Grade Level	With Highest Honors	With High Honors	With Honors	Total	Percentage
11	0	62	146	208	77
12	0	53	167	220	80
Total	0	115	313	428	79 (Ave.)

Table 5 showed that 208 students are honors in the fourth quarter in Grade 11, this corresponds to 77% of Grade 11 students. While there were 220 students , who are honors in the fourth quarter in

Grade 12, this corresponds to 80 % of Grade 12 students. And the Gen. Average in the number of honors for SY 2021-2022 is 79.

Table 6. Problems and Issues Encountered by Teachers in Learning Delivery

Responses	Frequency	Percentage
Absence of Learning Materials in most specialized and applied subjects	2	11.11
Checking of students' outputs	1	5.56
Emotional Stress/Mental Health	1	5.56
Internet connection is weak and unstable	6	33.33
Non – compliance or non – submission of outputs of students	4	22.22
Limited knowledge in online applications	1	5.56
Absences of learners in online classes	3	16.66
Total	18	100

Table 6 shows that the highest problem in learning delivery is the weak and unstable internet connection. The next in rank is non – compliance and submission of learners and the third in rank is

absences of learners in their online classes to include the synchronous and asynchronous classes.

Table 7. Action Taken by Teachers in order to address the Problems in Learning Delivery

Responses	Frequency	Percentage
Create the teacher – made learning materials	2	11.11
Provide budget for the reproduction of modules and activity sheets	1	5.56
Conference with parents and students	2	11.11
Organize Group Chats	3	16.66
Consistent Monitoring of the students	4	22.22
Extend the deadline of submission	1	5.56



Provide more fun learning activities	1	5.56
Create video lessons	3	16.66
Kumustahan	1	5.56
Total	18	100

Table 7 shows that the highest in number in terms of action taken is the consistent monitoring of the students. The next are Creating Videos and Organizing Group Chats respectively.

Table 8. Recommendation or Ways Forward of Teachers

Responses	Frequency	Percentage
Create the teacher – made learning materials	4	22.22
Provide budget for the reproduction of modules and activity sheets	1	5.56
Training in online applications	4	22.22
Constant Communication with students and parents	7	38.89
Be resilient	2	11.11
Total	18	100

Table 8 shows that the highest in number among the recommendations is the constant communication with students and parents. And the next in rank are trainings in the online applications usage and creation teacher -made materials.

Table 9. Problems and Issues Encountered by Students

Responses	Frequency	Percentage
Exposed in too much radiation	4	20
Internet Connectivity is weak	7	35
Insufficient learning support	2	10
Distraction at home	5	25
Time Management	2	10
Total	20	100

Table 9 shows that on the part of the learners the highest in terms of problems encountered by students is the weak internet connectivity. The next one is the distraction at home and the third one is being exposed to too much radiation while having their online classes.

Table 10. Action Taken as Perceived by the Students

Responses	Frequency	Percentage
Preparation Back-up Materials	4	20
Conduct Meetings and Conference with teachers, students and parents	2	10
Organize remediation	1	5
Implementation of HGP and CGP	3	15
Checking of attendance and consistent monitoring and follow -up of learners	10	50
Total	20	100

Table 10 shows that on the part of the learners the highest in terms of action taken as perceived by the students is the checking of attendance and consistent monitoring and follow – up of learners. The second one is the preparation of back -up materials. The third one is the implementation of HGP and CGP.

**Table 11. Recommendation or Ways Forward of Students**

Responses	Frequency	Percentage
Provide video lessons	10	50
Assist the students in their needs for their study	3	15
Provide select students with learning devices like tablets and laptops	1	5
Minimize the learning tasks	2	10
Implement Face to Face classes for struggling learners	4	20
Total	20	100

Table 11 shows that on the part of the learners the highest in terms of the ways forward is to provide the video lessons. This is followed by the implementation of face to face classes for struggling learners. And the last one is to assist the learners in their needs in their study.

2. Provide video recorded lessons per subject.
3. Intensify the learning support system.
4. Maximize the use of the tablets given by LGUs and DepEd.
5. Subscribe for the additional and more stable internet service providers in school.

VII. CONCLUSIONS

The following conclusions were drawn:

1. The total number of students who passed in the third quarter for grade 11 is 268 and 270 while for Grade 12 is 276 in both quarters. However, the total number of students who failed in the third quarter for grade 11 is 2 and in the fourth quarter is 0 while for Grade 12 is 0 in both quarters.
2. The total number of honors in Grade 11 is 208 or 77% of the total grade 11 learners. And in Grade 12 is 220 which is equivalent to 80% of the total grade 12 learners.
3. Most of the problems encountered by both teachers and learners is the weak and unstable internet connectivity, in addition to the top problems identified by the teachers are non-compliance and submission of outputs and absences in online classes. On the part of the learners are the distraction at home and too much exposure in radiation in their online classes.
4. The top responses among the teachers in terms of the action taken in learning delivery problems are the consistent monitoring of the students, creating video lessons and organizing group chats respectively. On the part of the students, is the checking of attendance and consistent monitoring and follow – up of learners, preparation of back – up materials and the implementation of HGP and CGP.
5. The highest responses among teachers in terms of ways forward for the learning delivery are the constant communication with students and parents, trainings in the online applications and creation of teacher -made materials. However, on the point of view of learners are to provide the video lessons, ensure the implementation of face to face classes for struggling learners and assist the learners in their needs for their study.

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VIII. RECOMMENDATIONS

The following recommendations were formulated:

1. Try to get the responses of parents and learning support from the family.



QUANTUM LEADERSHIP, ETHICAL CLIMATE AND COMMITMENT OF SCHOOL ADMINISTRATORS: A CONVERGENT DESIGN

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ABSTRACT

Background. Evidently, findings of previous studies conducted were either qualitative or quantitative in nature. There were only few literature relating to the association of the three variables namely; quantum leadership, ethical climate and commitment of school administrators in the local Philippine context.

Objectives. This study determined the influence of quantum leadership and ethical climate on the commitment of school administrators of private HEIs in Region XI, as conceptualized through the pragmatic philosophical worldview.

Methods. Mixed methods research approach specifically the convergent design was employed. There were 300 school administrators who served as respondents, purposively chosen for the quantitative phase and 17 as participants for the focus group discussion and in-depth interview for the qualitative phase. An adopted questionnaires and validated interview guide were utilized as basis for the data gathered. Statistical tools like mean, standard deviation, Pearson-r and multiple linear regressions were used to analyze the quantitative data while thematic analysis was applied in the qualitative phase.

Results. Findings revealed that the status of quantum leadership was always evident while ethical climate was oftentimes manifested. Moreover, commitment was always observed among the school administrators. Major themes emerged from the thematic analysis on the participants' lived experiences such as possessing a decisive frame of mind, displaying notable leadership practices, experiencing administrative failures and having personal battles on the views and challenges or struggles of school administrators. Further, four themes emerged on the role of experiences in shaping up the attitude and commitment namely; being optimistic and empowered, being relational and reflective, practicing faithfulness on moral principles and doing high quality work. Interestingly, mixing the salient quantitative and qualitative findings revealed the merging-converging nature and function of data integration

Conclusion/Recommendation. The status of quantum leadership, ethical climate and commitment of school administrators in the private HEIs in Region XI was rated very high. This means that quantum leadership is always evident, the ethical climate is always manifested and commitment is always observed among the school administrators in Region XI; both quantum leadership and ethical climate significantly influenced the commitment of school administrators in the private HEIs in Region XI. Finally, this study was relevant in the sense that it generated significant information useful in school policies, and identifies areas for evaluation on the effect of quantum leadership and ethical climate to the commitment of school leaders, coupled with the decrease of commitment among schools administrators. Hence, the private HEIs may apply the principles of quantum leadership skills and continue the ethical practices that contributed to the attainment of the school goals and objectives.

KEYWORDS: Commitment, education, ethical climate, leadership style, quantum leadership, school administrators

INTRODUCTION

The problematic commitment of leaders remains high, resulting in lack of creativity, connectivity and collaboration at all levels of the organization (Schneider & Macey, 2018). In the United States, Tsao and Laszlo (2019) argued that 75% of current approaches to leadership fail to produce positive commitment of the leaders and high productivity for the organizations they serve. In Europe, according to Powell (2017), the problem is that 86% of organizational leaders are experiencing very low commitment endemic to the times and are not aware of the transformative work that redefines their role as school leaders (Tsao, & Laszlo, 2019).

As mentioned by Lloyd, (2013), school leaders should also keep in mind several guidelines for change leadership such as the need to realize that change is a continuous process that requires ethical climate to enhance organizational commitment of the human capital within the organization. Moreover, the traditional leadership model must be replaced with one that reflects the new realities of our workforces and our stakeholder needs (Porter-O'Grady & Malloch, 2017). Also, 80% of global organizations experienced disruptive innovations that are changing the rules of competition for today's higher educational institutions at breakneck speed so with leaders' commitment and ethical climate in the organization (Giles, 2018).



One type of leadership is quantum leadership. Tsao and Laszlo (2019) defined quantum leadership as a leadership informed by quantum thinking and guided by the defining principles of quantum physics. Quantum leaders think ahead by formulating many scenarios (Schaff and Johnson, 2012). Moreover, quantum leadership is the process of leading from the future. It is based upon the achievement of a future perfect organization, which is the prototype high-performance organization of the 21st century, (Banks, 2018). This occurs by projecting one's mind-set and behaviors into the future perfect paradigm and literally pulling the organization into that future state. A future perfect organization is defined as exceptional in terms of productivity, performance, and profitability, one to three years into the future (Porter-O'Grady and Malloch, 2017).

From deconstructing infrastructure to confronting new age leaders, a new set of complex environment emerge where things are constantly changing that have not fully prepared school leaders to address in the 21st century newer model of leadership that are based on new ideas about organizational structure, managing people, systems and processes (Ferrell, 2019). The leader's role must change with changing times (Giles, 2018). Change leadership means adopting new ways of doing things, solving conflicts, searching for new markets, develop new practices, outperform competitors, new strategic solutions to chaotic situations and a learning process to see the bigger picture of the intelligent school organization, (Powell, 2017).

On the other context, it has been argued that unethical behavior in the organization is increasing (Wyld and Jones, 2017). A sound ethical practices among employees is vital to the organization and society as a whole, (Brodnick, 2018). Recent impacts from the revelations of previous findings, ethical climate at school organizations lend support to the school leader's commitment (Haris, Budihan and Haris, 2016). These ethical climate, perceptions, commitment, and practices are often viewed in composite as the organization's overall performance (Victor and Cullen, 1987, 1990, 2009).

Ethical climate is when workers perceive that organization is concerned about their well-being through its emphasis on fairness, diversity, ethics, trust, and so forth, they are more amenable to the efforts of management to focus on strategic outcomes of value to the organization (Schneider, White and Paul, 2017). An appropriate ethical climate increases the desire to become emotionally involved, and enhances commitment of school leaders (Arias and Tejada, 2014). An understanding of the ethical work climate aids in obtaining a fuller appreciation regarding the decisions made by school managers and leaders (Meyer, Stanley, Jackson, McInnis, Maltin, and Sheppard, 2012). Literature affirms that people tend to accept and internalize the ethical climate to which they belong and that the perception of climate influences their behavior and increase their commitment (Aldazabal, Espinosa-Pike, and Martin-Arroyuelo, 2017).

According to Mills and Spittle, (2016) leadership and ethical climate have bearings towards commitment of school leaders. The leaders' role changes with changing times (Giles, 2018). School leaders and their organizations are to thrive in the new era, a whole new mind-set and skill-set must emerge in the school leader (Porter-O'Grady and Malloch, 2017). School leaders face the need for a quantum leap in their thinking about the structure and leadership of organizations that have bearing on their commitment (Giles, 2018) and encounter the greatest technological upheaval, need for creative restructuring, challenged by external forces to build a radically new leadership culture from the ground up, (Zohar, 2016).

Evidently, findings of previous studies conducted were either qualitative or quantitative in nature. Moreover, mostly were focused on corporate and health care professionals (Dargahi, 2013). Further, most of the studies found were bivariate in nature (Haris, Budiman, and Haris, 2016) and there were only few literature relating to the association of the three variables namely; quantum leadership, ethical climate and commitment of school administrators (Giles, 2018). The literatures seemed insufficient regarding the linkage of these three variables in the local setting (Dargahi, 2013). With all of these scenarios, the researcher was intensely interested in working with this study.

LITERATURE REVIEW

This section discusses literature and related studies on quantum leadership, the ethical climate and commitment of school administrators which comprises information, ideas, concepts both local and foreign sources that serve as background and framework of the components of the study.

Quantum Leadership

Quantum leadership is an approach that leads organization to the future and modifies organization to future perfect ones (Busemeyer, Wang, and Townsend, 2016). Further, quantum leadership is a process which makes everyone participates in the organization, which school leaders are leaders who can motivate the employees and reach the future perfect organization to high level of performance that is defined as an exceptional organization in terms of productivity, performance and profitability.

Readings revealed that quantum leadership affects commitment of school administrators (Giles, 2018; Powell, 2017; Porter-O'Grady, 2017; Tsao and Laszlo, 2019; Dargahi, 2013; Haris, Budihan, and Haris, 2016). A quantum leader applies the central insights and ideas of quantum physics to improve and enhance the quality of thinking, increase commitment, and provide learning in strategic planning processes. It means that trying to hold ideas in an open-minded manner in order to expand options and possibilities. The what if questions is beneficial when making plans and visualizing and thinking of future decisions that makes quantum leader helps create innovative strategic options for any quantum organization and further increase the commitment of school administrators in the organization, (Harris, 2018).



Moreover, quantum leadership is based upon three principles that explain the human thought function. These principles are mind that established perspectives, thought is based on systems and processes and consciousness that influence and affects commitment of leaders (Banks, 2018). This requires the ability of school leaders to create a relationship and atmosphere of transformational leadership and dynamic leader-follower that affects leader commitment, (Okpara, 2014). Quantum leaders perspectives focuses on innovation, involves interaction, commitment of leaders and supporting staff members for self-direction, rather than giving direction for a future perfect organization, (Zohar, 2016).

Additionally, according to previous research on quantum leadership and its bearing to commitment (Dikko, Abdul, Mutalib and Ghazali (2017), quantum thinking and skills of school administrators is a mechanism that is the backbone in understanding how this leadership style works and functions within the organization (Avolio and Gardner, 2015). The study of Ekpe and Adelaiye (2017) found out that there was a positive significant relationship between quantum leadership style and school leader's commitment.

Furthermore, quantum leadership is not a traditional leadership; it is a new paradigm of advanced organizational stewardship. As in physics and the theory of quantum mechanics; quantum leadership provides a path through the unpredictable, the non-linear and the highly complex nature of organizations. This requires the ability to create a relationship and atmosphere of transformational leadership and dynamic leader-follower that affects leader commitment, (Okpara, 2014). The aim of quantum leadership is to unify both manager and employee together so that they can pursue a self-leadership role which encourages others to exercise leadership utilizing stewardship, Giles, (2018). The most important issue is that leaders explore the pursuit for more dynamism that captures the unpredictable, chaotic aspects of transformation confronted by today's organizations and establish the paradigm adjustments that would illustrate adaptive structures and processes, increase high level of leader commitment for constructive transformation, (Kotter, 2018). Moreover, quantum leader applies the central insights and ideas of quantum physics to improve and enhance the quality of thinking, commitment, and learning in strategic planning processes, (Agrawal and Sharda, 2013). Also, Tsao and Laszlo (2019) further stated that leaders should know how to apply the dynamics of the quantum field that allows beneficial application in harmonious energy access, holistic perspective, organizational restoration, and much more based on the leader's perspectives, organizational design, motivation and needs of a specific organization (Kanter, 2020).

Finally, Hassan & Umar (2016) found out on their study stated that leadership style was more strongly correlated with commitment that shows school heads should endeavor to communicate, inspire and motivate employees by respecting and commending individual contribution to the goal of the organization (Haris, Budihan, and Haris, 2016). Once the leader

commitment increases, the willingness of employees to achieve the vision is influenced by the extent to which the leader is able to build a shared, desired picture of the organization or unit (Banks, 2018).

Ethical Climate. Ethical climate is the shared perceptions of employees what is considered to be an ethically correct behavior that are the expected norms, standards and moral practice within a specific organization Huang and Lin, (2014). Further, Mills and Spittle, (2016) described that leadership and ethical climate have bearings towards commitment of school leaders. In the same manner, Moore, (2012) defined ethical climate as the prevailing perceptions of typical organizational practices and procedures that have ethical content. Furthermore, ethical climate therefore influences the commitment of leaders, the decision making and subsequent behavior in response to ethical dilemmas. Martin & Cullen, (2016).

In addition, a substantial body of research addresses organizations' ethical climate, and their influence on leaders' commitment (Cullen, Parboteeah and Victor, 2003; Peterson, 2012; Wimbush and Shepard, 2014). Literature affirms that people tend to accept and internalize the organizational ethical climate to which they belong, and that the perception of climate influences their commitment (Tauginiené, 2016). The private universities link their mission to ethics and morality, and this could be why these school leaders most strongly perceive the laws and codes ethical climate. This ethical climate is conducive to ethical behavior and can increase leader's commitment to one's organization, (Larrán and Andrades, 2015; Madison and Schmidt, 2006). These universities promote an ethical climate that fosters ethical behavior that greatly influences the commitment of school administrators (Weber, 2018).

Along this context, ethical climate has become an area of increasing interest and have bearings on the increase of commitment because a leader's ethical or unethical behavior can influence the commitment of the human capital within the organization (Mendonca and Kanungo, 2017). Also, Guerci, Boyer-Kassem, and S'Ebastien, (2015) added their findings which stated that the aspect of reinforcement of ethical behavior, specifically the way that an organization supports and rewards employees, which might be considered organizational practice on its own affects the increase of commitment of school administrators within the school organization. School leaders' guidance and unconditional support affects employee commitment (Weber, 2018).

Further, Mills & Spittle, (2016) described that leadership and ethical climate have bearings towards commitment of school leaders. Also, ethical climate therefore influence the commitment of leaders, the decision making and subsequent behavior in response to ethical dilemmas. Martin and Cullen, (2016) states that ethical climate are shared organizational ethics as a type of cultural control which results from an accumulation of organizational rituals, stories, and norms of interaction that



affects the commitment of human capital within the organization. When a climate is created where ethical values and behaviors are fostered, supported and shared, an increase of commitment occurs, Malloy and Agarwal (2013).

Commitment. Commitment is the perception which an employee develops toward the organization he is working a psychological state that characterizes the employee's relationship with the organization, and has implications for the decision to continue or discontinue membership in the organization, (Van Der Wal, DeGraaf, and Lasthuizen, (2008).

As globalization is increasing in the 21st century fourth industrial revolution, 80% of global organizations experienced disruptive innovations that are changing the rules of competition for today's higher educational institutions at breakneck speed so with leaders' commitment and ethical climate in the organization (Giles, 2018). The most important issue is that leaders explore the pursuit for more dynamism that captures the unpredictable, chaotic aspects of transformation confronted by today's organizations and establish the paradigm adjustments that would illustrate adaptive structures and processes, increase high level of leader commitment for constructive transformation, (Kotter, 2018).

Furthermore, this new culture must define a new leadership paradigm that can deal creatively with rapid change, increase leader commitment, face uncertainty, meet global interconnectivity, de-centralization, and greater demands for ethics and meaning from both employees and customers (Mills, and Spittle, 2016). The employee commitment is seen as the key factor in achieving competitive performance (Sahnawaz and Juyal, 2016) towards organizational productivity (Samad, 2017).

In addition, school leaders need to tune into the new environment, challenge the prevailing organizational wisdom, communicate a compelling aspiration, build coalitions, strive to increase commitment, transfer ownership to a working team, learn to persevere, and make everyone a hero (Solinger, Van Olfen, and Roe, 2018). As far as management of human affairs is concerned, therefore, the right path will emerge that increase leader commitment from the interaction of entities and their contexts can motivate school leaders to embrace quantum thinking (Fris and Lazaridou, 2016).

Along this line, school administrators should also keep in mind several guidelines for change leadership, apply quantum thinking such as the need to realize that change is a continuous process that requires leader's commitment (Amusa, Iyoro, and Olabisi., 2013; Crook, 2010; Ogunjinmi, 2014). The digital age now calls for leaders to perceive their role differently and to express it in ways that best fit the characteristics of the future perfect quantum organization (Powell, 2017). Finally, low commitment could be a major issue in the success of organizations, (Mayowa-Adebara, and Aina, 2018). Several studies have also identified factors that constitute low level of affective commitment among employees

in various organizations leads to lower performance and productivity. (Eisenbeiss, and Knippenberg, 2018; Mayowa-Adebara, and Aina, 2018; (Colquit, LePine and Wesson, 2019; Baba and Ghazali, 2017).

By conducting the literature review, the researcher was able to discover new insights and deepened her understanding on the topic being studied. It also helps the researcher to contextualize the different variables. In addition, the researcher was able to find validated instruments that measured the quantum leadership, ethical climate and commitment of school administrators which were very significant in the conduct and success of this study.

THEORETICAL AND CONCEPTUAL FRAMEWORK

This study was anchored on Quantum Theory of Porter-O'Grady and Malloch (2010) the development of a new paradigm that can appreciably impact the effectiveness of school administrators' leadership function. This theory is widely used to examine the quantum leadership of administrators in managing organization. The theory states that quantum leadership operates with a quantum lens that views human relationships and environmental elements as interconnected and dynamically moving that greatly influences the commitment of school leaders in the organization. Basically, the relationship between school administrators and their working environment can be described as follows: individuals are important in the world, and their collective relationships are even more important as higher level of commitment exist in their school environments. With the move to local school management, decision making patterns of school administration, leadership and management have changed. Contextually, the theory is a useful basis for school administrators in the private HEIs in Region XI to discuss their own progress in the evolution of leadership and management in their workplace that affects their commitment of being a quantum leader.

In addition, this study was anchored on the Ethical Climate Theory (Victor and Cullen, 1987). The theory states that ethical climate consists of two dimensions and is considered to be an important aspect in the management of ethics within the organizations that influence the commitment of school administrators in higher educational institutions. Further, the theory pointed out that the first dimension relates to the ethical criteria used for decision making purposes and the second relates to the locus of analysis as a referent in ethical decisions of the human capital within the organizations that affects the level of commitment of school administrators in private higher educational institutions that results to higher overall organizational performance (Mayer, 2009).

On the other hand, commitment of school administrator was anchored on the theory of organizational commitment by Perreira, (2016). The theory of organizational commitment utilized the exchange and investment approaches of organization commitment. Further, the exchange approach stated that the school administrators' commitment depends on his or her

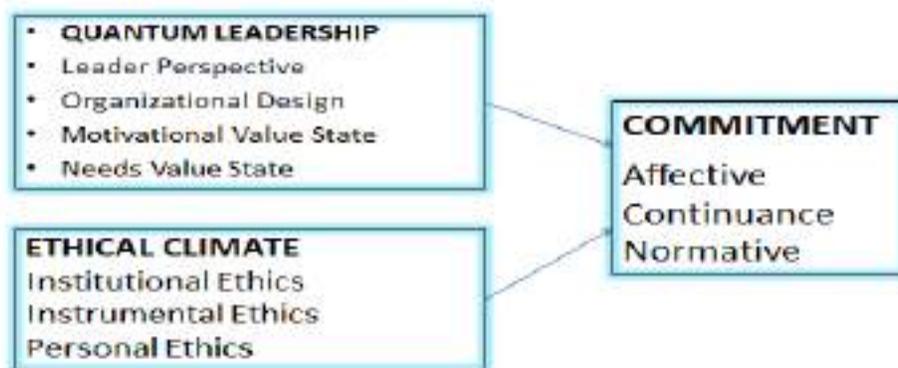


perceived balance of reward utilities over input utilities in the private educational institutions. This approach emphasized the current exchange of relations between school administrator's commitment and the organization (Colquit, LePine, and Wesson, 2019).

The theories above were vital in the conduct of this study because they shed light to the researcher the concepts, and propositions that explain situations or events by determining the relationship of the variables in the study. These theories helped the researcher in systematically understand the behavior of a particular group. Through these theories, the researcher could determine whether the claim of the study confirms or contradicts.

Presented in Figure 1 is the schematic diagram of the conceptual framework of the study. The independent variables include **quantum leadership** and **ethical climate**, while the dependent variable refers to the **commitment** of the school administrators. Figure 1 postulated the interrelationship of quantum leadership, ethical climate and its effect on the commitment of school administrators. **Quantum leadership** has four indicators, namely: **leaders' perspective**, **organizational design or structure**; **motivational state value**, and **needs value state** of school leaders that may affect school administrator's **commitment** which includes **affective**, **continuous** and **normative** commitment.

Figure 1. Conceptual Framework



PURPOSE OF THE STUDY

This study determined the influence of quantum leadership and ethical climate on the commitment of school administrators of private HEIs in Region XI. A convergent design was used. It is a type of design in which different but complementary data were collected on the same topic. In the quantitative phase of the study, survey questionnaires were used to gather data from the school administrators of private HEIs in Region XI, to determine the significance of relationship that may exist between quantum leadership and ethical climate to the commitment of school administrators. The qualitative phase was conducted in order to generate the insights, feedback on attitudes, and lived experiences of school administrators with regard to their commitment as a quantum leader. This is to go deeper with the findings in the quantitative phase to look into the corroboration with the personal experiences shared by the school administrators of the private HEIs in Region XI.

STATEMENT OF THE PROBLEM

This study determined the influence of quantum leadership and ethical climate on the commitment of school administrators of private HEIs in Region XI. Specifically, it sought answers to the following questions:

1. What is the status of quantum leadership, ethical climate and commitment of school administrators?
2. Do quantum leadership and ethical climate significantly influence the commitment of school administrators in Region XI?

3. What are the lived experiences of the participants pertaining to their commitment as school administrators?
4. How do these experiences shape the attitude and commitment of the participants as school administrators?
5. How do the qualitative data corroborate the quantitative findings?

HYPOTHESIS

To set focus on the study, the researcher tested the null hypothesis:

HO1 The predictors does not significantly influence the commitment of school administrators.

SCOPE AND DELIMITATION

The study was conducted in private higher educational institutions (HEIs) in Region XI covering the Davao Region. Region XI consists of five provinces such as Compostela Valley, Davao del Norte, Davao del Sur, Davao Occidental and Davao Oriental. program in education. The researcher preferred to conduct the study in Region XI since the region is consist of lots of private higher educational institutions being run by many school administrators having different perspectives and personalities who can provide authentic responses which may be useful in this study. In this manner, the researcher may contribute meaningful insights to the development of quantum leadership approach in the local context, where she belongs or to the community (Region XI) at large.



In addition, the researcher was motivated to conduct the study since this field is in relation to her profession as an educator and school leader for more than twenty years in practice and the researcher have a first-hand experience with abrupt changes in the private higher educational institution with the advent of technology and changes in the Philippine educational system. Lastly, the researcher selected Region XI to be the site for this study because it has a number of respondents with different personalities who could share credible responses. Region XI has plenty of private HEIs, and that findings of this study could provide relevant ideas on quantum leadership which would be useful by the school administrators for them that they may be able to provide innovative programs and services to the stakeholders of the private HEIs.

METHODOLOGY

This study utilized the mixed methods approach specifically the convergent design. This approach measures two or more relevant variables and assess a relationship between or among them (Schmitz, 2012). The mixed methods design is the sibling of multi-method research in which either solely multiple quantitative or solely multiple qualitative approaches were combined. The convergent design both gave equal emphasis on the analysis and interpretation of the collected data (Mertens, 2018). Convergent design simultaneously gathered the quantitative and qualitative data collection and analysis (Creswell, 2017).

Meanwhile, in the qualitative phase, the researcher used phenomenological approach. A phenomenological study described the common meaning for several individuals of their lived experiences of a concept or phenomenon. It focuses on the commonality of a lived experience within a particular group (Creswell, 2013). The study was conducted in private higher educational institutions (HEIs) in Region XI covering the Davao Region. These private HEIs were selected due to its nature as privately owned sectarian and non-sectarian higher educational institutions (HEIs) that met the minimum requirements of the Commission of Higher Education in Region XI.

Moving on, the researcher employed purposive sampling in selecting the 300 respondents and 17 participants of the study. Parreno and Jimenez, (2014) defined purposive sampling as the process of choosing the respondents of the study based on their knowledge of the information required by the researcher. Further, purposive sampling was used in selecting participants in order to achieve a homogeneous sample whose units share the same characteristics or traits (Creswell, 2017). For the succeeding

phase, 10 participants were invited for the in-depth interview (IDI), and seven participants for the focus group discussion (FGD). The following criteria were set; each participant was a full-time school administrator in the private higher educational institution, and has at least active three years of experience in leading the school from the middle managerial scope specifically the college deans, program heads, program coordinators and unit heads within the school organization. Those school administrators having an experience of two years and below were not qualified to participate in the study.

For the measures, prior to the conduct of the study, the questionnaires were validated by experts in order to assess the credibility of the items suited to the participants' norms and situations. Reliability is the consistency of an instrument. The validity of a measure is directly related to reliability. The researcher used the validity of the measure to assess whether the instrument consistently measures what is intended to measure or perform what is intended to perform of (MacInnes, 2017). The Cronbach's alpha is a convenient test that was used to test the reliability, or internal consistency, that is, how closely related a set of items are as a group. Cronbach's alpha gave the researcher a simple way to measure whether or not a score is reliable.

The results were statistically analyzed using numeric data as product using mean, standard deviation, Pearson-r, and multiple regression analysis and Thematic analysis was employed which has six phases, starting with the researcher transcribing, reading, and re-reading the data, then initial codes or features of data were created. The next phase involved searching for the themes, and collating the codes. A comparison was made when presenting the results of the study in passages organized by major topics. The trustworthiness of a qualitative thematic content analysis is frequently presented by using terms such as credibility, transferability, dependability and confirmability (Creswell, 2017; Guba and Lincoln, 1985). To ensure that the study was conducted in an ethical manner, the study was reviewed by the Research Ethics Committee of the of the school before the conduct of the study. Thus, participants' full consent was obtained before the survey questionnaires were administered, interview and FGD were done, and their privacy protection was ensured and was assured with the confidentiality of their answers.

RESULTS AND DISCUSSION

Findings revealed that the status of quantum leadership was always evident while ethical climate was oftentimes manifested. Moreover, commitment was always observed among the school administrators.


Table 1.1. Status of Quantum Leadership of School Leaders

Indicators	Mean	Standard Deviation	Description
Leader's Perspective	4.50	0.48	Very High
Organizational Design or Structure	4.47	0.46	Very High
Motivational Value State	4.47	0.39	Very High
Needs Value State	4.52	0.43	Very High
OVERALL MEAN	4.49	0.36	Very High

Table 1.1 presents the computed average mean scores on the extent of quantum leadership of school administrators in terms of leader's perspective, organizational design or structure, motivational value state and needs value state as a leader in private HEIs. It has an overall mean score of 4.49 which is described as very high. It has an overall standard deviation coefficient of .36 which denotes the values tend to be close to the mean of the data set. Further, this showed consistency. The status of quantum leadership of school administrators in the private HEIs in Region XI is always evident. This means that quantum leadership perspective of school administrators with regards to leader's perspective, organizational design or structure,

motivational value state and needs value state is always evident in the workplace and contributes to the success of the operations of the private HEIs in Region XI. This implication has affirmed the findings of Malloch and Porter-O'Grady (2017) that quantum leadership perspective views and sees the organization and its members as interconnected energetic beings, enhanced by collaboration and interaction; Giles (2018), supported that the aim of quantum leadership is to unify both manager and subordinates together so that they can exercise leadership utilizing stewardship through the lens of shared values that can influence the commitment of leaders.

Table 1.2. Status of Ethical Climate of School Leaders

Indicators	Mean	Standard Deviation	Description
Institutional Ethics	4.40	0.47	Very High
Instrumental ethics	4.08	0.57	High
Personal Ethics	4.11	0.62	High
OVERALL MEAN	4.11	0.62	High

Presented in Table 1.2 are the computed average mean scores on the extent of ethical climate of school administrators in terms of institutional ethics, instrumental ethics and personal morality as school administrators in private higher educational institution in Region XI. Ethical climate is shown as oftentimes manifested among school leaders. It implies that school administrators practiced high ethical working conditions in the private HEIs in Region XI. This result has confirmed the findings of Guerci, Boyyer-Kssem & S'ebastein (2015) which stated that

reinforcement of ethical behavior, specifically the way that an organization supports and rewards employees affects the leader's commitment. Thus the role of ethical climate as Aldazabal, Espinosa-Pike and Arroyuelo, (2017), stated on their study that universities and school organizations are social change institutions and their ethical climate could influence commitment of school leaders and increase the production and performance of its leaders.

Table 1.3. Status of Commitment of School Leaders

Indicators	Mean	Standard Deviation	Description
Affective commitment	4.19	0.46	High
Continuance Commitment	4.36	0.51	Very High
Normative Commitment	4.23	0.47	Very High
OVERALL MEAN	4.26	0.39	Very High

Data on table 1.3 presents the status of commitment among school leaders in the private HEIs in Region XI, with an overall mean score of 4.26, having a descriptive rating of very high. It has low overall standard deviation coefficient of 0.39 which shows the values tend to be close to the mean of the data set. The status of commitment of school administrators in private HEIs of region XI is always observed. This variable has an overall mean score of

4.26 with a descriptive rating of high. It indicates that school administrators in the private HEIs in Region XI is emotionally attached, reflected willingness to stay and have sense of obligation in ensuring excellent organizational performance and productivity in leading the school organization. This finding is congruent with Dey (2018) who found out that employee commitment plays a major role in the success of any organization



due to its very high level of attachment that employees feel towards the organization, their willingness to perform tasks on behalf of the organization and their tendency to remain members of the organization. Schneider, White, and Paul, (2017) affirmed the findings of Dey (2018) that committed employees are dedicated and would work assiduously, conscientiously, provide value, promote the organization's services or products and solicit continuous advancement.

Significance of the Influence of Quantum Leadership and Ethical Climate on the Commitment of School Administrators

Table 2 presents the influence of quantum leadership and ethical climate on the commitment of school administrators on private higher educational institution (HEIs) in Region XI.

Table 2. Significance of the Influence of Quantum Leadership and Ethical Climate on the Commitment of School Administrators

Predictors	Standardized Coefficients Beta	t	p-value	Remarks
(Constant)		5.912	.000	
Quantum Leadership	.403	7.813	.000	Significant
Ethical Climate	.261	5.065	.000	Significant

Note: R=.519, R-square=.270, F=52.419, P<.05

Specifically, it shows that the influence of quantum leadership on the school administrators' commitment had a p-value that has less than .05 and a positive standardized beta value of 0.403. This implies that for every unit increase in the quantum leadership, there is a corresponding .403 increase in the commitment of school administrators in the private HEIs in Region XI.

Similarly, the influence of ethical climate, when treated solely, is also found to be significant with p-value of less than .05 and positive standardized beta value of .261. Thus, in every unit increase of ethical climate, there is a corresponding .261 increase in the commitment of school administrators. Among the two variables, quantum leadership found to be the most influential on the commitment of school administrators in the private HEIs in Region XI. Moreover, the table explains 27 percent of commitment as revealed in the R-squared value of 27. This suggests the 73 percent of the variance can be attributed to other factors aside from quantum leadership and ethical climate. The quantitative findings explaining that the variance of the commitment significantly influenced by the two independent variables.

Further, quantum leadership has positively influenced the commitment of school administrators. Data implied that the higher the quantum leadership perspective the higher is the commitment of school administrators in the private HEIs in Region XI. This result supports the findings of Akinyemi, and Ifijeh, (2017) which revealed that there is a positive relationship among leadership styles and commitment. Further, findings suggest that the positive relationship is an insight into employees' loyalty to organization and it is a continuous process regarding employee participation in corporate decisions, their attention to it, and leads to the success and well-being of the organization. Additionally, ethical climate positively influence the commitment of school leaders which means that there is a very high manifestation of ethical practices within the organization that

increases the commitment of school leaders. These findings corroborate with the study of Agarwal, and Malloy, (2015), who stated that ethical climate is important for the overall performance of the organization. Good ethics have a beneficial effect on organizational well-being and commitment of workers. It helps in productivity improvement, risk reduction, better relations with customers and clients and an increasing flow of communication (Ciulla, 2015). Additionally, it is also a principle in the ethical advantage of work and its capacity to improve one's character (Guerci, Boyer-Kassem, and S'ebastein, 2015). Further, Lozano (2017) confirmed that work ethics can be improved by inculcating the feeling of love among employers and employees, creating strong work culture through appropriate systems, rewards and penalties and involving the employees in more challenging jobs, in decision making process and in giving suggestions thus increasing their work commitment.

Adding on, major themes emerged from the thematic analysis on the participants' lived experiences such as possessing a decisive frame of mind; the finding is congruent to the findings of (Brenya, 2016) that committed quantum leaders possess the quantum skills that make leaders capable to examine their mental models and make sound judgments thus promote their capacity to learn and decide, have the ability to see deliberately, quantum thinking, the ability to think adversely, quantum feeling: the ability to feel actively, quantum knowing: the ability to know intuitively, quantum acting: the ability to act accountably, quantum trusting: the ability to trust life's process, and quantum being: the ability to be in association and they see the organizations as a complex structures., displaying notable leadership practices, this affirms Agrawal and Sharda (2013) that quantum leader applies the central insights and ideas of quantum physics to improve and enhance quality of thinking, commitment and learning in strategic planning processes, value teamwork in order to expand options and possibilities. On the third theme experiencing administrative



failures and having personal battles on the views and challenges or struggles of school administrators.

Moreover, four themes emerged on the role of experiences in shaping up the attitude and commitment namely; being optimistic and empowered, being relational and reflective, practicing faithfulness on moral principles and doing high quality work. This finding supports what Dikko, Abdul, Mutalib and Ghazali (2017) found out that commitment is the main key to the development of interpersonal relationships and sense of empowerment among school leaders in the school organization. Further, this finding reinforces with Romzek (2019) words that the workers' loyalty towards the organization is impacted by a closer attachment to the organization, a bigger sense of ownership and the more the organization's values match the worker's values are all indications of a person's commitment that positively contribute toward enhancing employees' behaviors and attitudes which ultimately increase their productivity and performance

Interestingly, mixing the salient quantitative and qualitative findings revealed the merging-converging nature and function of data integration in the following aspects:

The findings on the experiences of quantum leadership of school administrators indicating, possessing a decisive frame of mind has a parallel result with a descriptive high rating in the status of quantum leadership of school administrators in the private HEIs in Region XI. Findings affirm that quality interaction between school leader and teachers can be established because they are encouraged to communicate and this parallel structure helps them feel they are partners in the organization (Wyld and Jones, 2017). This finding implied that the school leaders in the private HEIs in Region XI encourage their teachers and subordinates to envision a future perfect school organization resulting in an increased commitment (Banks, 2018). Thus, leadership and various associated styles have an immense impact on how employees perform and grow. Additionally, quantum leaders think ahead by formulating many scenarios (Schaff and Johnson, 2012).

Furthermore, the converging nature of the qualitative and quantitative findings on ethical climate suggests that, practicing faithfulness on moral principles highlighting the following manifestations of obedience to school rules; policies are ethically

grounded and independence on personal interests; participation of the employees on institutional activities; and the structured administrative system is followed; formed the category obedience to school policies. A sound ethical practices among employees is vital to the school organization and society as a whole, (Brodnick, 2018). Strategic directions are consistent with the school policies. Decisions made are grounded on organizational policies. Thus, findings imply that quantum school leaders have great awareness of the ethical working environment of what is going on and they are consultative and participative in leading the school organization (Wyld and Jones, 2017).

Similarly, the converging nature on the focal points of commitment of school administrators in private HEIs in Region XI shows that a very high status of commitment enhances interest in working environment. The findings indicate that school administrators of private HEIs in Region XI believe doing quality work is important and that teachers always manifest the execution of remarkable teaching practices. This has a parallel result to quantitative findings under highlighting the idea that commitment is seen to employees who embraces the company's value and culture and is reflected on the established sense of loyalty through longer years of service. This finding is congruent to the statements of Park (2019) that an individual would develop an emotional attachment to an organization when he or she identifies with the goals of the organization and is willing to assist the organization in achieving these goals.

Furthermore, Hassan and Umar (2016) found out in their study that leadership style was more strongly correlated with affective commitment that shows school heads endeavor to communicate, inspire and motivate employees by respecting and commending individual contribution to the goal of the organization. This implies that school organizations that meet the needs of the school administrators and its subordinates and help them to become the best that they can be are more likely to have employees who are content and motivated in doing quality work and who in turn can be more committed to the school organizations. This finding is consistent with that of Ponnu and Chuah (2018) who reported that fairness in organization offers opportunity for workers to have a sense of belongingness which means higher continuance commitment on the part of employees.


Table 3. Joint Display of Salient Quantitative and Qualitative Findings

Focal Point	Quantitative Findings	Qualitative Findings	Nature of Data Integration	Axiological Implication
Status of Quantum Leadership	Table 1 reflects status of quantum leadership of the school administrators. The status is described as very high with an over-all average of 4.49 (SD=.361). Specifically, 4.50 (SD=.483) for leader's perspective, 4.47 (SD=.468) for organizational design, 4.47 (SD=.399) for organizational value state and 4.52 (SD=.435) for needs value state.	Table 3.2 shows categories such as positive leadership characteristics, remarkable leadership practices and value of teamwork. These categories formed the essential themes, <i>possessing a decisive frame of mind</i> and <i>displaying notable leadership practices</i> .	Merging-Converging	School administrator configure innovative solutions, explore ideas and make sound strategic decisions for the betterment of the organization.
	For leader's perspective, items 3 and 6 have equally the same level with a mean score of 4.61 (SD=.58) described as very high. Item 3 stated "Considering that the solution to solve complex problems will always be found through conscious exploration of ideas"	A core idea formed under positive characteristics stated "An idea that transformation is optimum over change is always set in place Furthermore, on attitude presented in table 4 formed the core ideas such as openness to accept challenges, develop decision making skills, Innovate to address lack of school support, develop I can attitude, take risks and strategized what is best	Merging-Converging	School administrators practice participatory decision making and value teamwork and belongingness among their teachers and subordinates.
	"Item 6 with a mean score of 4.61 (SD=0.58) stated <i>Believing that due to the interconnectivity of consciousness and the physical world around us, the relationships should be built on trust and shared values</i> "respectively. In terms of motivational value state Item 20 with a mean score of 4.45 (SD=0.64) stated that <i>having faith in the individuals within my organizational extended team to find solutions to obstacles even when it seems hopeless</i>	Core idea such as <i>Sense of Belongingness and trust are always empowered and established in the organization</i> is formulated under positive characteristics category. Furthermore, <i>the idea of that employees trust and hard work</i> will always generate profit are internalized. Core ideas culled out from table 4 such as: Learn to appreciate and respect one another, Support one's another leadership, develop appropriate interpersonal skills in dealing one's behavior, Develop maturity and flexibility in terms of individual differences and Fosters camaraderie, trust and caring behavior formed the category professionalism towards others.	Merging-Converging	School administrator practices trust and empowerment towards their subordinates generates high productivity and performance.
	In terms of organizational design and structure item 1 stated <i>Seeing the organization as symbiotic system including all stakeholders</i>	Core ideas under <i>value of teamwork category</i> stated <i>There is sense of collaboration rather than individualism</i> and Participatory	Merging-Converging	



	<i>who have an influence on molding or forming the future perfect organization</i> also reflected an average of 4.51 described as very high.	approach has been practiced within the organization”.		
Status on Ethical Climate	Table 2 shows the high status of ethical climate. Generally, the average is 4.11 (SD=.625) described as high. Specifically an average of 4.40 (SD=.477) very high for institutional ethics, 4.08 (SD=.578) for instrumental ethics and 4.11 (SD=.625) for personal ethics.	Table 3.2 shows categories such as obedience to school rules, policies are ethically grounded and independence on personal interests . These categories formed the essential theme, <i>practicing faithfulness on moral principle</i> . The following core ideas converge with the quantitative figures.	Merging-Converging	School administrators strive to provide healthy, and ethical working environment to enhance engagement and commitment.
	Item 1 stated that <i>our major concern is always what is best for everyone</i> and item 6 <i>People are expected to comply with the law and professional standards over and above other considerations</i> with an average of 4.52 (SD=.641) and 4.50 (SD=.636) respectively.	Core ideas include <i>participation of the employees on institutional activities and the structured administrative system is followed</i> formed the category obedience to school policies. Furthermore, strategic directions are consistent with the school policies. Decisions made are grounded on organizational policies.	Merging-Converging	
	Item 1 for instrumental ethics stated “1. <i>In this organization, people protect their own interests above all else</i> ” has an average of 4.13 (SD=.736) Item 1 for personal ethics stated that “ <i>In this organization, people are guided by their own personal ethics and beliefs</i> ” has an average of 4.14 (SD=.711).	Core ideas such as working environment is independent on personal interests and prefer to follow organizational rules rather than personal intentions.	Merging-Converging	
Status of Commitment	Table 3 shows very high status of commitment. Generally, the average is 4.26 (SD=.399). Specifically an average of 4.19 (SD=.463) for affective commitment, 4.36 (SD=.515) for continuance commitment and 4.23 (SD=.473) for normative commitment.	Table 3.2 extracted the following codes: notable teaching practice, positive disposition, faithfulness and meanings of commitment. These formed the essential themes: doing quality work and displaying context of commitment. The following core ideas converge with the quantitative figures.	Merging-Converging	Well-being of the teachers is considered to increase productivity and have excellent performance within the school organization.



	Item number 1 for affective commitment stated that “willingness to put in a great deal of effort, beyond that is normally expected in order to help this organization be successful” has an average of 4.54 (SD=.526) described as very high.	Core Ideas such as “Employees reflect exceptional outputs, Execution of remarkable teaching practices and Faithful practice of positive students approach formed the category notable teaching practice. On attitude reflected in table 4 formed the category continued loyalty characterized by the following core ideas: top give justice from the compensation, continued commitment to provide quality work and consistent display of positive behavior over circumstance.	Merging- Converging	
	Item number 1 for continuance commitment stated that “I am proud to tell others that I am part of this organization has an average of 4.49 (SD=.619) described as very high.	Core idea reflected “Established sense of loyalty through longer years of service”.	Merging- Converging	
	Item number 7 for normative commitment stated that “finding that my values and the organization’s values are very similar has an average if 4.33 (SD=.678) described as very high.	Core idea stated that Commitment is seen to employees who embrace company’s value and culture.	Merging- Converging	
Quantum leadership and commitment	Table 2 affirmed that the relationship between quantum leadership and commitment is significant with a p-value of .000 and magnitude of -.705. Higher level of grit means lower level of burn-out.	Table 3.2 shows the formulated essential theme “enhancing interest in working environment”. This is characterized by the categories: Trust fosters commitment, benevolence propels commitment and favorable relationship sustained commitment	Merging- Converging	Quantum leadership empowers subordinates in the attainment of the strategic goals of the institution.
Ethical climate and Commitment	Table 2 affirmed that ethical climate influence commitment significantly (t=5.065; p=.000) A level increase of ethical climate is .167 increase in the level of commitment	Table 3.2 formed the essential theme moral leanings deepen commitment.	Merging- Converging	School leaders have to value the personal beliefs of their subordinates to sustain commitment to the school for higher productivity.

Status of Ethical Climate. The high status of ethical climate is observed. Generally, the average is 4.11 (SD=.625) described as high. Specifically an average of 4.40 (SD=.477) very high for institutional ethics, 4.08 (SD=.578) for instrumental ethics and 4.11 (SD=.625) for personal ethics. Further, Item 1 stated that *our major concern is always what is best for everyone* and item

6People are expected to comply with the law and professional standards over and above other consideration with an average of 4.52 (SD=.641) and 4.50 (SD=.636) respectively. Also, Item 1 for instrumental ethics stated *In this organization, people protect their own interests above all else* has an average of 4.13 (SD=.736) and Item 1 for personal ethics stated that *In this*



organization, people are guided by their own personal ethics and beliefs has an average of 4.14 (SD=.711).

Also, it reveals the qualitative findings on Table 5 extracted the following codes: notable teaching practice, positive disposition, faithfulness and meanings of commitment. These formed the essential themes: doing quality of work and displaying context of commitment. The following core ideas converge with the quantitative figures. Core Ideas such as *Employees reflect exceptional outputs, Execution of remarkable teaching practices and Faithful practice of positive students approach* formed the category notable teaching practice. Core idea reflected *Established sense of loyalty through longer years of service* and Core idea stated that Commitment is seen to employees who embrace company's value and culture. It resulted to merging as the nature of data integration and converging as the functional integration. This explains its axiological implications that school administrators strive to provide healthy and ethical working environment to enhance engagement and commitment of teachers for increase of productivity and excellent performance of the school organization.

Status of Commitment. Result shows very high status of commitment. Generally, the average is 4.26 (SD=.399). Specifically an average of 4.19 (SD=.463) for affective commitment, 4.36 (SD=.515) for continuance commitment and 4.23 (SD=.473) for normative commitment. Further in item number 1 for affective commitment stated that *willingness to put in a great deal of effort, beyond that is normally expected in order to help this organization be successful* has an average of 4.54 (SD=.526) described as very high. Also, Item number 1 for continuance commitment stated that *I am proud to tell others that I am part of this organization* has an average of 4.49 (SD=.619) described as very high. Lastly, Item number 7 for normative commitment stated that *I find that my values and the organization's values are very similar* has an average of 4.33 (SD=.678) described as very high respectively.

In terms of its qualitative findings on the status of commitment, Table 3 extracted the following codes: notable teaching practice, positive disposition, faithfulness and meanings of commitment. These formed the essential themes: doing quality of work and displaying context of commitment. The following core ideas converge with the quantitative figures. Further, Core Ideas such as *Employees reflect exceptional outputs, Execution of remarkable teaching practices and Faithful practice of positive students approach* formed the category notable teaching practice. Another Core idea reflected *Established sense of loyalty through longer years of service*, and core idea stated that *Commitment is seen to employees who embrace company's value and culture*. It resulted to merging as the nature of data integration and converging as the functional integration. The axiological implications of this aspect is that the well-being of the teachers is considered to increase productivity and have excellent performance within the school organization

Quantum Leadership and Commitment. In terms of the significant influence of quantum leadership on the commitment of school administrators Table 2 affirmed that the relationship between quantum leadership and commitment is significant with a p-value of .000 and magnitude of -.705. Higher level of quantum leadership means higher level of commitment. Further, Table 7 shows the formulated essential theme *enhancing interest in working environment*. This is characterized by the categories: Trust fosters commitment, benevolence propels commitment and favorable relationship sustained commitment. With this result, merging is the nature of data integration while converging is the function of integration. The axiological implications entails that transformative leadership empowers subordinates in the attainment of the strategic goals of the institution.

Ethical Climate and Commitment. Lastly, on the significant influence of ethical climate to the commitment of school administrators in the private HEIs in region XI, Table 2 affirmed that ethical climate influence commitment significantly ($t=5.065$; $p=.000$) A level increase of ethical climate is .167 increase in the level of commitment. Also, qualitative findings from Table 4 formed the essential theme cultivating moral learning deepen commitment. It resulted to merging as the nature of data integration and converging as the functional integration. It explains its axiological implications on this aspect that school leaders have to value the personal beliefs of their subordinates to sustain commitment to the school organization for higher productivity. In this aspect, the majority of the results show that there is a significance of the findings of both quantitative and qualitative data.

The joint display of salient quantitative and qualitative findings shows the nature and function of data integration of the study. The salient qualitative findings corroborate with the quantitative data, showing a merging-converging nature in the following aspects:

CONCLUSIONS AND RECOMMENDATION

The following paragraphs are the conclusions gleaned from the findings and recommendations:

The status of quantum leadership, ethical climate and commitment of school administrators in the private HEIs in Region XI was rated very high. This means that quantum leadership is always evident, the ethical climate is always manifested and commitment is always observed among the school administrators in Region XI; both quantum leadership and ethical climate significantly influenced the commitment of school administrators in the private HEIs in Region XI; five emerging themes captured from the lived experiences of school administrators in the private HEIs in Region XI with regard to their views, challenges and struggles in relation to their commitment. Thus, the essential themes included possessing a decisive frame of mind, displaying notable leadership practices, practicing faithfulness on the moral principles, experiencing administrative failures, and having personal battles influence school leader's commitment as they performed their duties and responsibilities in the school organization. Further, two themes emerged on the influence of commitment on the ethical climate



of school administrators namely, enhancing interest in working conditions and cultivate moral learning within the private HEIs in Region XI; there were four emerging themes which described the role of experiences in shaping the attitude and commitment of school administrators. These essential themes included being optimistic and empowered, being relational and reflective, doing high quality work and enhancing interest on working conditions have bearing on school leaders' commitment as they execute tasks as school administrators in the private HEIs in Region XI.

The quantitative data corroborate the qualitative findings of this study. The nature and function of the data integration of the salient quantitative and qualitative findings were merging-converging.

Since the results showed that the status of quantum leadership, ethical climate and commitment of school administrators are high, it is recommended for the school administrators that their leadership skills may be sustained and enhanced through designing relevant trainings and workshops on coping mechanisms or strategies on facing changes brought about by fourth industrial revolution (FIRe) technology; the combined influence of quantum leadership and ethical climate significantly influenced the commitment of school administrators of the private HEIs in Region XI, hence the application of quantum leadership style and providing ethical climate in the school organization may be highly endorsed to be applied in the workplace to increase commitment; it was revealed that school leaders were experiencing administrative failure, hence, continuous evaluation and long term planning may be strengthened for the implementation of goals of the organization to the extent that the organization may have the necessary and sufficient preparation to overcome the changes and uncertainty of the modern times; the nature of data integration of the salient quantitative and qualitative findings is converging, the private HEIs may apply the principles of quantum leadership skills and continue the ethical practices that contributed to the attainment of the school goals and objectives and for the future researchers, they may venture on the emerging themes from the qualitative findings.

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THE NOVEL ELECTRONIC DEVICE FOR EARLY DETECTION OF AGE-RELATED MACULAR DEGENERATION

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SUMMARY

The article provides a description of a developed method for early diagnosis of dry age-related macular degeneration in the form of a device for assessing contrast sensitivity and conducting the Amsler test. The device is designed as portable VR glasses and a joystick. The article presents the technical parameters of the device and the principle of its operation. The panel displayed during patient examinations is shown. The presented device is intended for use both in outpatient healthcare settings and for self-assessment of contrast sensitivity by patients, serving as an effective means for the early diagnosis of dry age-related macular degeneration.

KEYWORDS: age-related macular degeneration; early diagnosis; contrast sensitivity.

INTRODUCTION

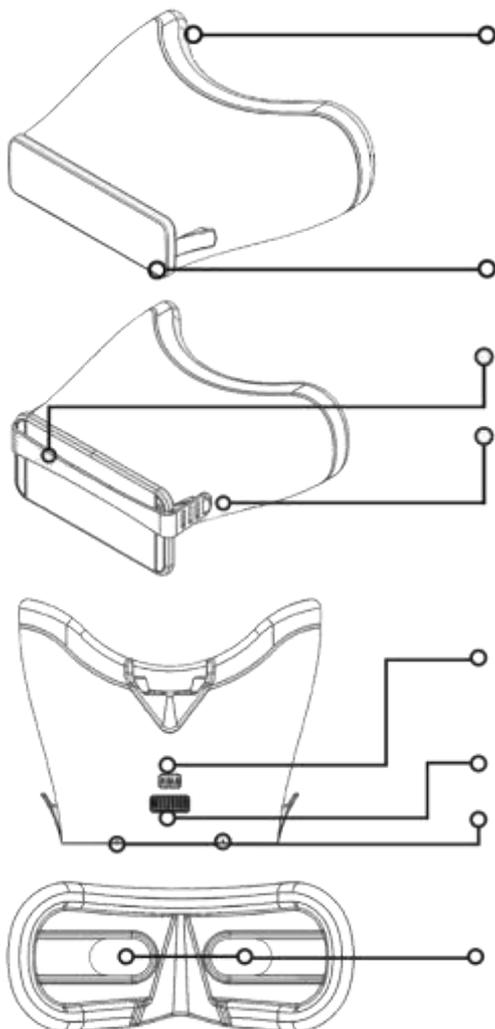
Currently, age-related macular degeneration (AMD) is one of the most common eye disorders, the progression of which leads to irreversible loss of central vision [1,2]. To detect changes in the macular area, doctors primarily rely on traditional ophthalmic examinations, which are not always capable of verifying early stages of the disease. The examination for AMD includes targeted medical history collection, Amsler grid testing, determination of visual acuity with the best correction for distance and near vision, perimetry, and examination of the fundus under pharmacological mydriasis using direct/indirect ophthalmoscopy [3,4,5]. Presently, ophthalmologists have a range of highly precise and reliable objective research methods

at their disposal: optical coherence tomography (OCT), digital fundus photography, and fluorescein angiography (FA). These methods allow real-time visualization of the retina's structure, and OCT additionally enables quantitative assessment of retinal layer thickness. In foreign publications, there is active discussion on AMD prevention and screening [6,7,8]. Various diagnostic maneuvers have been proposed to predict and identify early stages of the disease.

The development of a VR-integrated electronic device, that has been designed to early detect and predict the risk of age macular degeneration. The VR device and software developed by us consists of several parts. The first part is the VR-glasses device part, which consists of the following construction (fig.1-2) and has the following indicators (table 1):



Figure 1. The composition of device for measurement the contrast sensitivity through computerized software support and the VR-glasses.



Soft contoured pillow for a comfortable fit on the face.

Protective coating to prevent dust; removed before use.

Silicone elastic strap to protect smartphone during testing

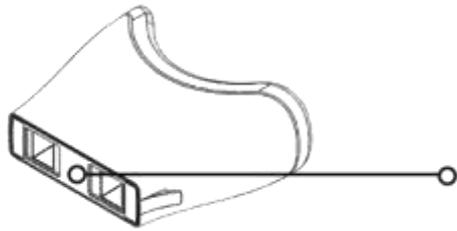
Handles for attaching an elastic band

The Pupillary Distance screen indicates that this is the "bottom" of the VR-glasses

Adjustable "PD" wheel

Additional characters

Optical part showing the mobile application



The micro-absorbent surface secures the smartphone screen to the VR-glasses device without damaging or leaving residue

Figure 2. Technical characteristics of the device.

The VR-glasses device is integrated with a Bluetooth remote control, which allows the controller to remotely check itself. The "VR-glasses macula vision test" device can conduct three types of tests in order to express the visual effect of the central retina.

1. Examination of uncorrected distance vision acuity
2. Examination of contrast sensitivity related to central visual acuity
3. Examination of visual pathological changes in central vision using Amsler's grid represented by colors.

Table 1

Technical indicators of the device.

No	Parameters	Indicators
	Size (length, width, height)	177 x 144 x 77 mm
1	Weight	213±7,5 gr
2	Power supply	Non
3	Brewing temperature	From 0° to 35°
4	Storage temperature	From 20° to 45°
5	Relative humidity	From 5% to 95%
6	Integrated phone requirement	iOS 9.3, Android 6.0 and other modern platforms
7	The screen size of the mobile device	Beyond 300 px
8	Visual acuity range	From 0 to 1.0

The complete design of the remote control is shown in figure 3.



- 1 Back and forward buttons
- 2 Bluetooth indicator
- 3 Direction keys
- 4 Confirm/Select
- 5 Battery indicator
- 6 On/off button
- 7 Charging cable

Figure 3. Complete technical description of the remote control.

The results of the "VR-glasses macula vision test" device are stored securely in the memory of the mobile application. Test results are dynamically compared over time. The results will be discussed with the ophthalmologist.

The second part is the passport part, where the person who wants to be examined by the program fills his information (surname, first name, patronymic, gender, etc.) according to his wishes. (fig. 4).



Figure 4. View of the passport part of the mobile electronic application.

After filling out the passport section, the program will automatically provide an interactive animation that will help

you pass the "Study Guide" test. The distance between the two pupils is entered as shown in Figure 5.

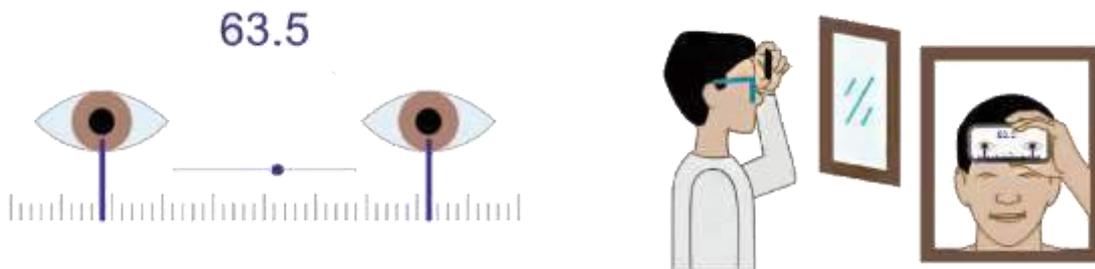


Figure 5. Interactive animation to help you pass the test.

The program then moves on to the second part, which tests uncorrected central visual acuity. The test comes with brief

instructions for performing the test and is illustrated as a separate window for each eye (fig. 6).

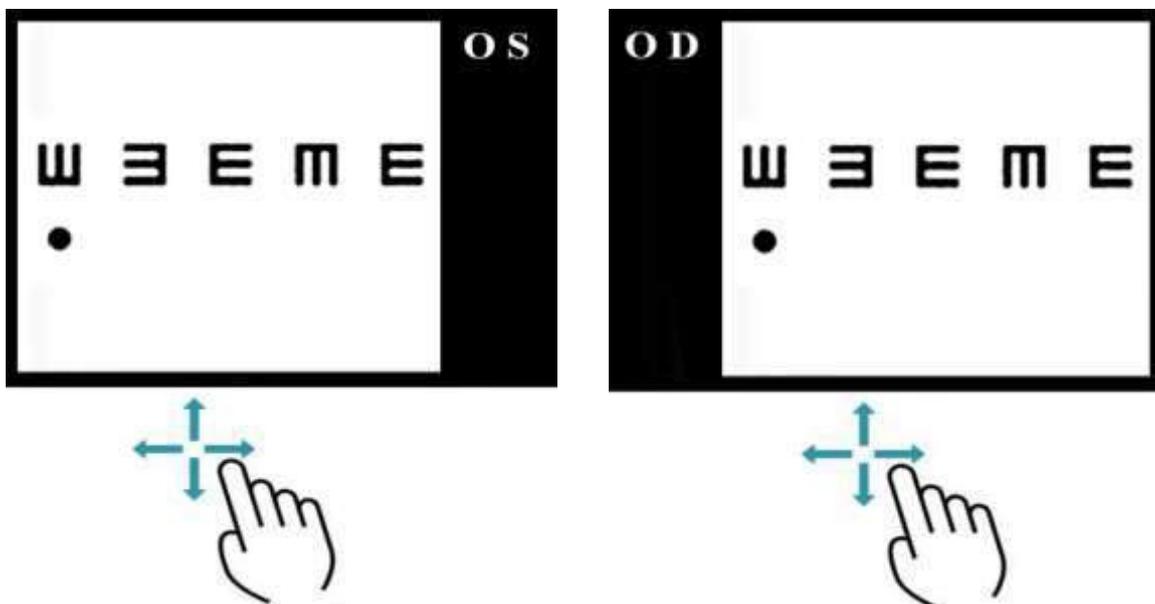


Figure 6. Slide in the "E" direction. Double click to go back.

The end of the direction is pressed from the remote control in the direction of the closed end to the open end of the letter "E" displayed on the open part of the smartphone screen (fig.7).

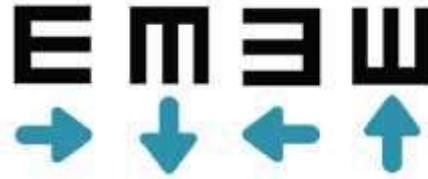


Figure 7. The order of pressing the remote-control arrows towards the open end of the letter's "E".

Central uncorrected distance visual acuity test results are expressed as 0 to 1.0 for each eye and binocularly based on the Snellin and LogMAR scale at the end of the test.

The program then moves on to the test key, a contrast sensitivity test related to central visual acuity. There are also optotypes for each eye expressed in contrast from 0% to 100% (fig. 8).

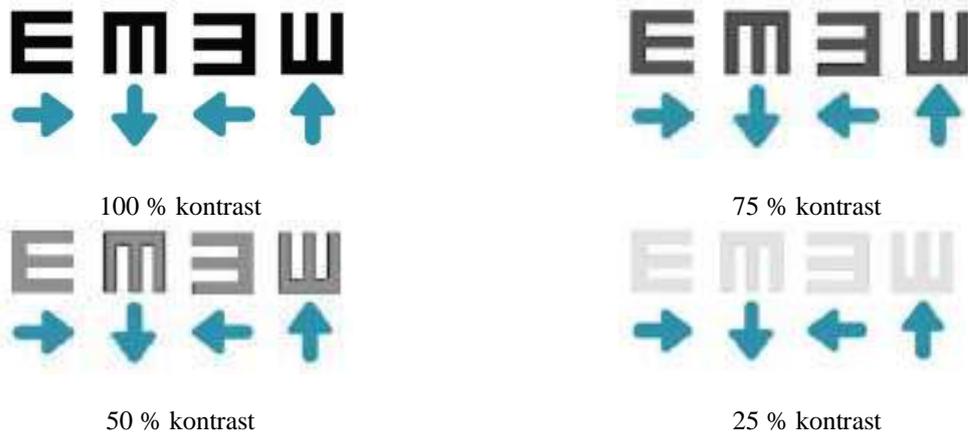


Figure 8. Contrast sensitivity test related to central visual acuity.

As a result of the test, the level of contrast sensitivity for each eye is evaluated and recorded. Finally, the program automatically switches to the test of visual pathological changes in the central vision using the Amsler grid, which is represented by colored lines. Here, the 3D Amsler grid representing black, red, green, blue colors and their contrasts is depicted separately for each eye. If the subject does not have subclinical changes in the retina, no changes are observed on the Amsler grid.

If there are any subclinical changes in the macula of the retina, the patient will have changes related to the photoreceptors located in this area. As a result, different forms of metamorphosis are observed in Amsler's grid. Each test is

significant in characterizing the occurrence of AMD and the subclinical changes occurring in the retinal macula. The program automatically calculates the results according to the specified answers from the respondent, then AMD calculates the progression of the disease based on the visual changes: divided into low risk, medium risk, high risk levels, and then self-checks the results. presents to the person who transferred. According to a certain risk group, the program provides recommendations for further actions to the examined person.

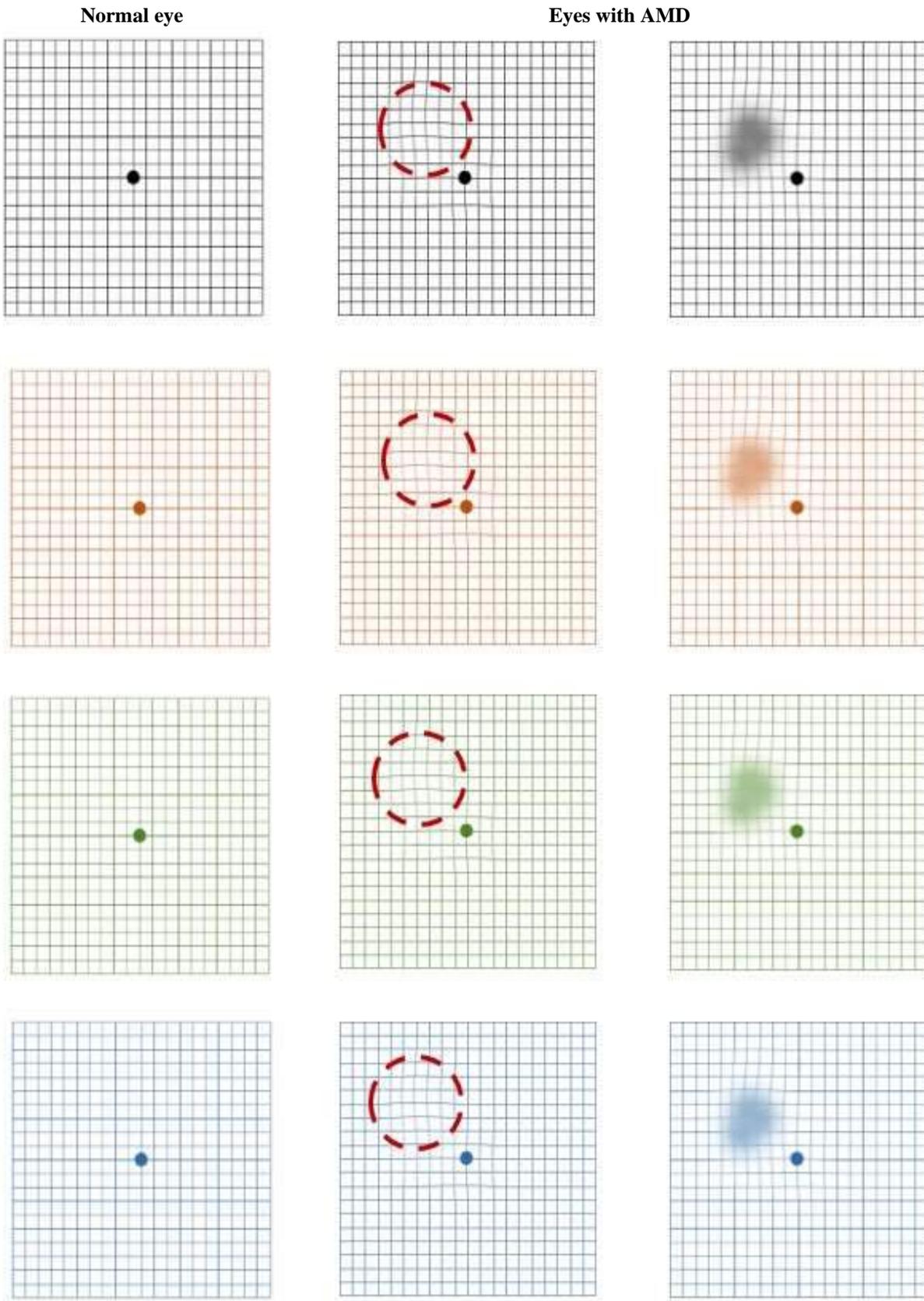


Figure 9. Display of Amsler test results in the program with normal and pathological options.



In addition, to increase awareness among the population, there is an informational component of the program, which contains information about the disease, presented in the local language.

Thus, the “VR-glasses macula vision test” device and electronic software developed by us are intended for public use and are easy to use. Examination of patients is carried out in a short time. At the same time, developed device allows to determine the risk group and the dynamics of its development process. Most importantly, in the ambulatory setting, this electronic application is convenient and facilitates the work of primary general practitioners. All these features of the program help to increase the prevention of visual impairment and blindness caused by AMD.

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STUDY OF THE ORGANIC GEOCHEMICAL PARAMETERS OF THE PIMIENTA FORMATION AND ITS IMPLICATION AS A GAS AND OIL GENERATING ROCK.

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SUMMARY

In order to determine the quality of the Pimienta Formation in the state of Veracruz as a hydrocarbon-generating rock and its role as an unconventional reservoir (shale gas/oil), the average values of TOC, Tmax, S2/S3 and IP of fourteen wells located in the northwestern portion of the state of Veracruz were analyzed. in the range of 1590 m to 3272 m depth. Due to the TOC content (1.14 to 2.79%), in some wells present in the study area, the Pimienta Formation can be classified as a hydrocarbon generator, with a fair to excellent quality. The Tmax data (423°C to 457°C) place the source rock in an early to late phase of thermal maturity. The producing potential (PP) of the area is weak to medium and the calculation of the type of hydrocarbon generated (S2/S3) indicates the presence of oil and gas in the formation, and the existence of oil may occur at depths from 2100 m in the studied area, if the hydrogen index (IH) vs. oxygen index (IO) are observed. Its evolution indicates that the predominant kerogen is a mixture formed mainly of types III and II, which can be interpreted as the precursors of gas and oil.

KEY WORDS: Pimienta, kerogen, shale gas, Total Organic Carbon, hydrocarbons.

RESUMEN

Con el fin de determinar la calidad de la Formación Pimienta en el estado de Veracruz como roca generadora de hidrocarburos y su rol como un yacimiento de tipo no convencional (shale gas/ oil), se analizaron los valores promedios de COT, Tmax, S2/S3 e IP de catorce pozos ubicados en la porción noroeste del estado de Veracruz, en el intervalo de 1590 m a 3272 m de profundidad. Por el contenido de COT (1.14 a 2.79%), en algunos pozos presentes en el área de estudio, la Formación Pimienta se puede catalogar como generadora de hidrocarburos, con una calidad regular a excelente. Los datos de Tmax (423°C a 457°C), ubican la roca generadora en una fase de madurez térmica temprana a tardía. El potencial productor (PP) de la zona se encuentra entre débil a medio y el cálculo de tipo de hidrocarburo generado (S2/S3) indica la presencia de aceite y gas en la formación, pudiendo ocurrir la existencia de aceite a profundidades a partir de los 2100 m en el área estudiada, si se observan el índice de hidrógeno (IH) vs. índice de oxígeno (IO), su evolución nos indica que el kerógeno predominante es una mezcla formada principalmente del tipo III y II los cuales se pueden interpretar como los precursores del gas y aceite.

PALABRAS CLAVES: Pimienta, kerógeno, shale gas, Carbono Orgánico Total, Hidrocarburos.

INTRODUCTION

The Energy Information Agency (EIA) ranks Mexico among the top ten countries with technically recoverable reserves in type reservoirs *shale gas* y *shale oil*, ranking sixth in gas reserves with 545 tcf and eighth in oil reserves with 13 mmmb (DOE/EIA-

0383, 2016)³. The National Hydrocarbons Commission (CNH) locates these resources in 6 zones throughout the northeastern portion of the country; Figure 1 (CNH 2016)²: 1.- Chihuahua. 2.- Sabine women. 3.- Donkey – Picachos. 4.- Burgos. 5.- Tampico – Misantla and 6.- Veracruz (**Figure 1**).



Figure 1. Shale provinces in Mexico (modified from CNH 2016).

Meneses S. J. (2015) in his doctoral work supported by the regional context provided by Humphrey (1958) cites that during the Cenomanian-Late Turonian, a global transgression produced a transgressive cycle, which allowed communication between the Gulf of Mexico and the western inland sea.

Terrigenous and calcareous sediments were deposited in eastern and northeastern Mexico in shallow, intermediate, and deep facies.

Pimienta Fm

Heim (1926) gave the name Pimienta Formation to a section of dense black limestone in thin strata with flint layers, which is exposed in the city of Pimienta in the state of San Luis Potosí.

The Pimienta Formation is widely distributed in the Tampico-Misantla Basin; It covers the Taman, San Andres, and Chipoco Formations, and underlies the Lower Tamaulipas Formation.

In the study area, the Pimienta Formation is composed of a sequence of fine to medium strata of dark gray black and brown, slightly pyritized limestone (mainly mudstone) with black shale, bituminous shale, and bentonite. Flint nodules are most conspicuous in the upper portion of this formation (Aguilera, 1972).

By means of ammonites, the formation was assigned an age from early Tithonian to late Tithonian. This formation was deposited in a shallow, probably neritic, low-energy basin environment, with continental sources providing some fine detrital material (Cantu Chapa 1971).

Petróleos Mexicanos (PEMEX) through PEMEX Exploration Production (PEP) has drilled a series of exploratory wells, resulting in 7 non-commercial gas and condensate producing wells: Amatlán-2, Caballo-1, Chote-1, Donita-1, Furbero-102, Juan Rosas-1 and Sultepec-1 (CNH 2016)².

The studied area was delimited based on information collected from 14 exploratory wells:

Amixtlan-2, Arenas-1, Axoxotla-1A, Caballo-1, Charro-1, Chote-1, Donita-1, Entabladero-1, Grillo-1, Furbero-102, Juan Rosas-1, Puxtla-1, Sabaneta-2A and Sultepec-1 (**Figure 2**)

The objective of this work is to determine the current degree of thermal maturity of the organic matter present in the Fm. Pimienta in each of the 14 wells, its implication in the generation of oil-gas, and its consideration for the future realization of a type project in this region.



Figure 2. Exploratory wells analyzed in the state of Veracruz.

METHODOLOGY

To define whether Fm. Pimienta can be classified as a hydrocarbon-generating rock, the Rock-Eval analysis analyzed the total organic carbon content present (TOC% wt), the maximum Rock-Eval temperature (Tmax °C), the type of hydrocarbons (S2/S3) and the Production Index (PI = S1/(S1+S2)).

Table 1 is based on the mean values of TOC, Tmax, S2/S3 and PI.

To determine the feasibility of carrying out a project of a typical reservoir *Shale* in this region, in addition to the amount of TOC and Tmax, the calculated reflectance value of vitrinite (Vrc %) as well as the rate of transformation of kerogen to gas and oil (Tr%). It was decided to perform the % calculation Vrc not having access to the data in the region, and then the equations proposed by Jarvie *et al*, 2005, for the calculations of the above parameters.

	TOC Average	Tmax Average	S2/S3 Average	PI Average
Amixtlan-2	2.76	457	23.11	3.94
Arenas-1	1.74	427	10.26	3.14
Axoxotla-1A	0.51	431	0.53	0.09
Caballo-1	1.69	443	7.03	3.15
Charro-1	1.3	432	7.16	13.03
Chote-1	2.22	435	30.04	25.15
Donita-1	2.03	435	9.88	23.48
Entabladero-1	1.46	443	12.87	6.44
Grillo-1	2.77	441	17.73	41.56
Furbero-102	0.54	440	7.62	0.77
Juan Rosas-1	1.49	434	18.75	13.60
Puxtla-1	1.86	431	33.29	26.91
Sabaneta-2A	0.34	440	5.35	0.34
Sultepec-1	1.91	437	17.70	7.92

Table 1. Geochemical characteristics of the wells in the study area.

Regarding the calculated reflectance value of vitrinite, it is known that this is not the most recommended since there is greater certainty when using Vro values measured in macerals of the

samples, so the entry of the kerogen into the window of the oil and gas and its evaluation in the shale gas prospect of the four wells must be taken with caution.



- Reflectance Value of Vitrinite (VRo):

$$\text{Cal. \% VRc (from T max)} = 0.0180 \times \text{Tmax} - 7.16 \text{ [\%]} \text{ (Equation 1)}$$
- TOC original

$$\text{Calculated original TOC} = \text{current TOC} / 0.64 \text{ [wt. \%]} \text{ (Equation 2)}$$
- The original generation potential can be calculated using the average value of carbon contained in hydrocarbons (83%) and increasing the generating potential S2.

$$\text{Transformed TOC} = \text{Original TOC} - \text{Present TOC} \text{ [wt. \%]} \text{ (Equation 3)}$$

$$\text{Original S2} = \text{original TOC} / 0.083 + \text{S2 present} \text{ [mg hc's / g rock]} \text{ (Equation 4)}$$
- Original Hydrogen Index (IH) value:

$$\text{IH original} = \text{S2 original} / \text{COT original} \times 100 \text{ [mg hc's / g COT]} \text{ (Ecuación 5)}$$
- Kerogen transformation ratio (Tr).

$$\text{Tr (Transformation Index)} = (\text{Original IH} - \text{Present IH}) / \text{Original IH} \text{ [\%]} \text{ (Equation 6)}$$

The TOC content (% by weight) is essential to determine the presence of a hydrocarbon-generating rock, so it is necessary to know its spatial distribution. In this research, the computer

programs *SURFER* were used, since both perform interpolation and extrapolation by means of geostatistics (*kriging*). The TOC distribution map that was obtained is shown in **Figure 3**.

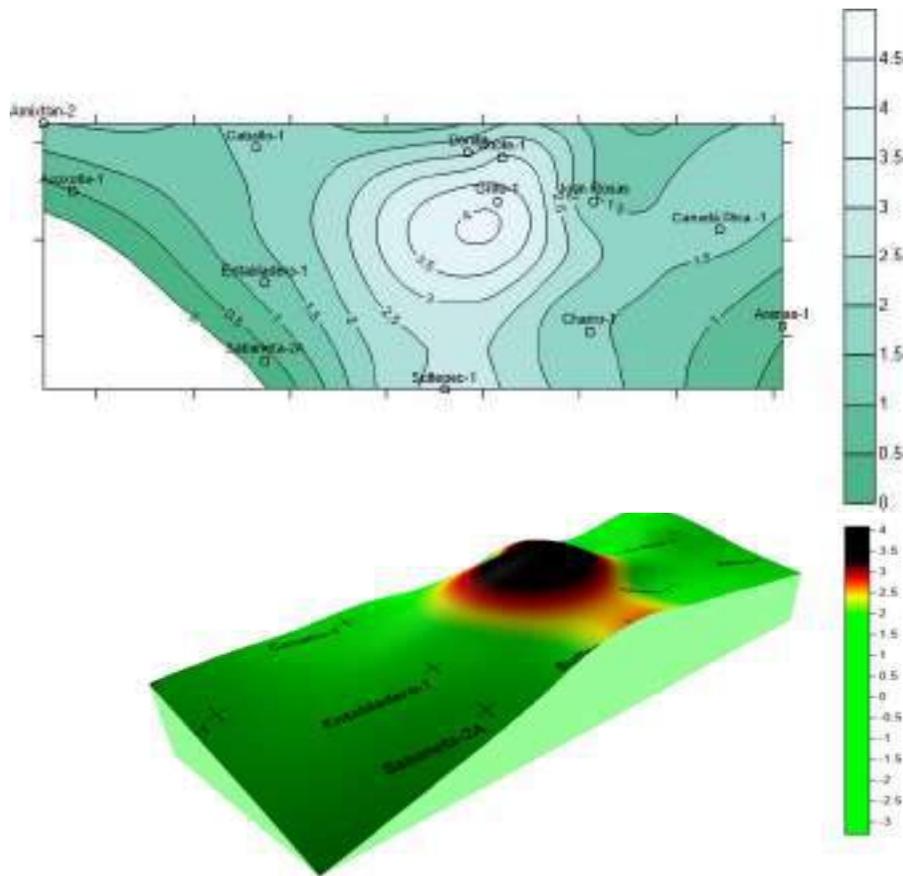


Figure 3. Spatial distribution of the TOC (%) of the 14 exploratory wells analyzed.

RESULTS & ANALYSIS

Spatial distribution of TOC content

As can be seen in **Figure 3**, the average TOC content is more evenly distributed in the central and western area of the study

area, with average values of 1% to 2% in the Arenas-1, Axoxotla-1A, Caballo-1, Charro-1, Entabladero-1, Furber-102, Juan Rosas-1, Puxtla-1, Sabaneta-2A and Sultepec wells; while in the Amixtlan-2 wells, Chote-1, Donita-1 and Grillo-1 had more than



2% of TOC. Therefore, it is considered that this area has an organic content indicative of a good quality generating rock.

TOC content (wt%) present

From **Figure 4**, it was interpreted that, in general, the TOC content (% weight) in each of the wells presented a higher concentration as the depth increases, in such a way that for the Sultepec-1 well it is considered as regulated to good from 2143 m and as excellent at 2199 m depth. with values from 1.0 to more than 2 COT (wt%).

In the Donita -1 well, it is medium to good at 2780 m to 2.7990 m depth, and excellent at 2788 m depth.

While in Juan Rosas-1 the concentration of TOC is more homogeneous at depths of 3,153 m to 3,192 m with content of 0.9 to 1.82 TOC (% weight).

On the other hand, the Caballo-1 well presented a better concentration of TOC between 2,279 m and 2,430 m with values of 1.57 (wt%) to 1.69 (wt%).

Based on the above information, it is confirmed that, although the Pepper presents variation in thickness and deepening in this area, it has an average thickness of 84 m that can be classified as a hydrocarbon generator, with a quality of fair to excellent.

The TOC content is related to the paleoenvironment and paleogeography represented by the Pimienta Formation, which is shallow to deep marine, together with the differential uplift and folding of that area of the country, which explains these differences in organic richness. The TOC is apparently related to the nature of the shales and their petrophysical characteristics analyzed, and it can be considered that the formation studied is a shale that behaves from this information as an unconventional petroleum system.

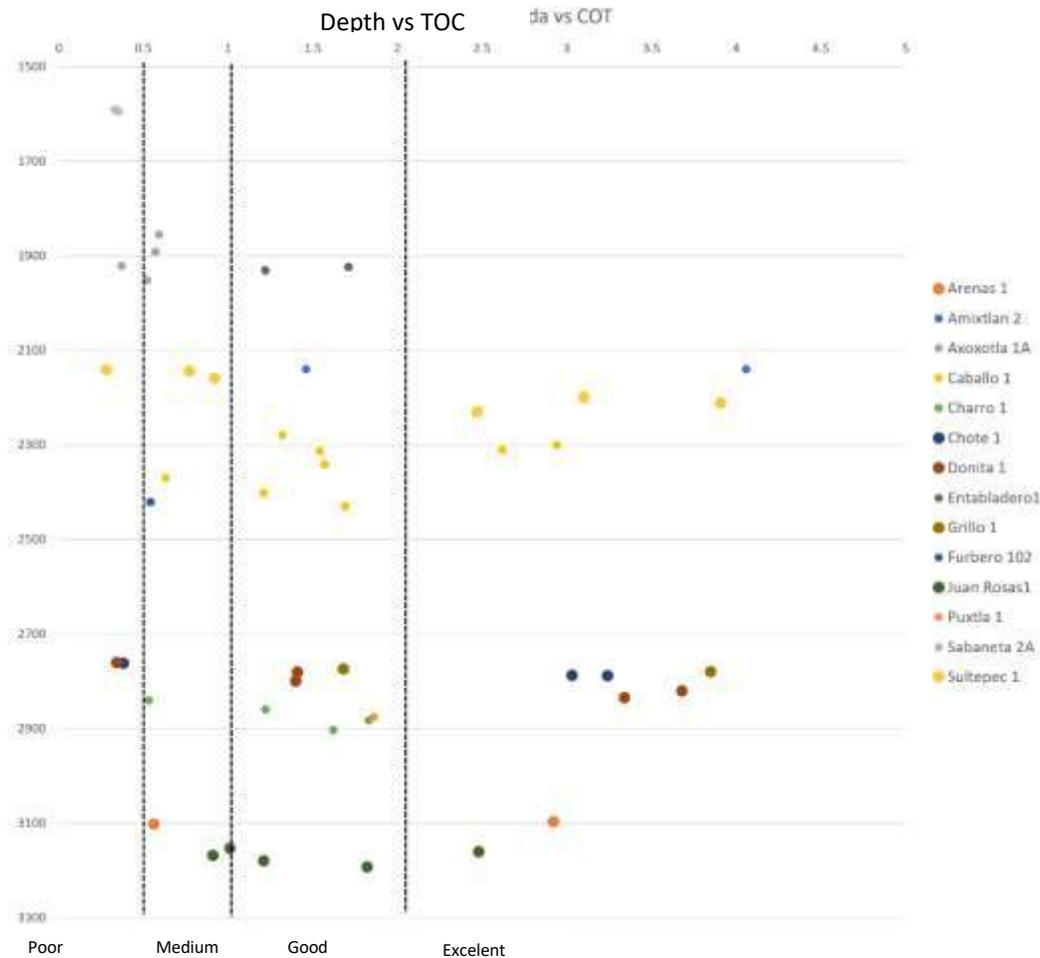


Figure 4. Classification of the quality of the rock as a hydrocarbon generator based on the TOC content (Total Organic Content).



Temperature máxima [Tmax (°C)]

Figure 5 shows that, for the wells, the Tmax Rock-Eval reported in the geochemical studies began with values close to 423°C, which placed them in a stage of early immaturity. This temperature showed an increase when exceeding 435°C, but after 444°C there is a decrease in temperature values, this could be associated with a variation of organic composition in sedimentation due to a differentiated regional tectonic uplift of the area. In the Caballo-1 well, Tmax values were essentially grouped between the temperatures of 435°C to 443°C, reaching the medium maturity stage. On the other hand, the Sultepec-1 and Donita-1 wells presented a minimum temperature variation with values of 435°C to 436°C. While the Tmax values in the Juan Rosas-1, Chote-1, Arenas-1 and Donita-1 wells place them as immature.

The Tmax values of the wells analyzed, in general, indicated that the Fm. Pimienta reached the stage of thermal maturity necessary for the exploitation of oil and gas generation.

IH vs. IO

In Van Krevelen's pseudo diagram, the values of Hydrogen Index (IH) against Oxygen Index (IO) (Figure 6) showed that the predominant type of kerogen in the area is type II, although type II kerogen is also present in the Charro-1 and Donita-1 wells. On the other hand, the Axoxotla-1 well only has type IV kerogen. When analyzing the Hydrogen Index, it was generally observed that, in the area, the kerogens present were precursors of gas and condensate.

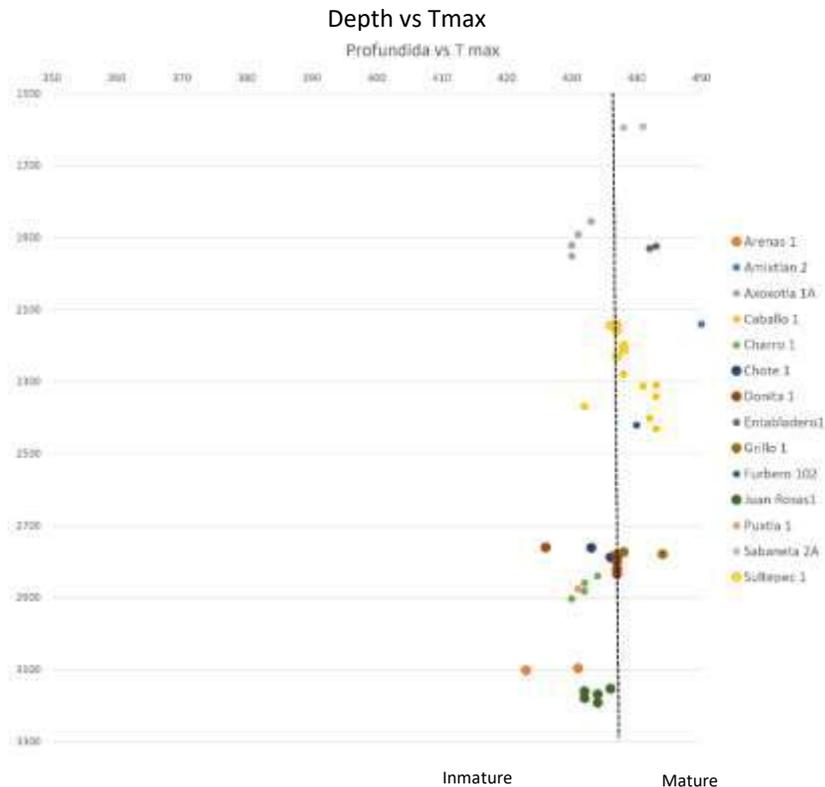


Figure 5. Variation of Tmax with respect to depth in the study area.

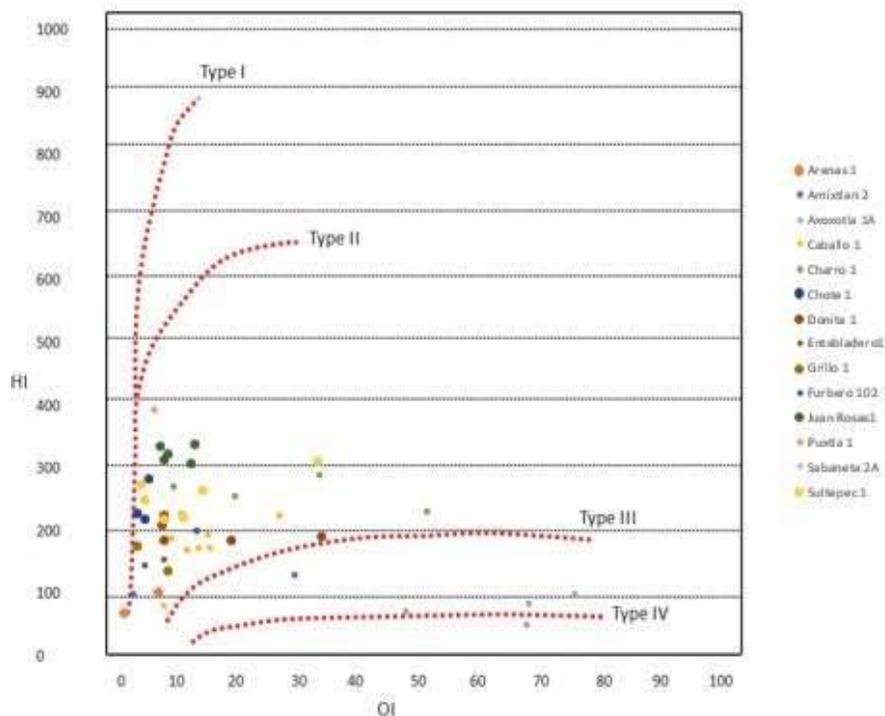


Figure 6. Van Krevelen pseudo diagram showing the type of kerogen and its predominant thermal evolution in the study area.

IP

Index of Production (PI) is determined by the ratio $S1 / (S1 + S2)$.

From these basic parameters, certain inferences can be made to define the type of organic matter, the level of thermal maturation, the generative potential of petroleum, and the migration of hydrocarbons within the source rock or in a non-generating area (oil sample) or contamination (Espalíe et al., 1977).

The Tmax in Figure 5 and the Production Index $S1 / (S1 + S2)$ in Figure 7 provide us with information on the thermal maturity of the organic matter studied and its potential to produce oil-oil-gas in the catagenesis stage. Figure 7 shows that the wells analyzed in the study area are potentially oil-generating wells since the IP values range from 0.1 to 0.4, while the Grillo-1 and Donita-1 wells are mainly potential gas producers ($PI > 0.4$), so it

is interpreted that the presence of oil is limited to the wells located in the central portion of the studied area. with the appearance of gas at a depth greater than 2,700 m.

From the analysis of TOC, Tmax, IH/IO and IP, it can be seen that the area between the Sultepec-1, Caballo-1, Donita-1 and Juan Rosas-1 wells is the one with the highest probability of having generated hydrocarbons, so its Tr (%) is analyzed.

VRo(%), Tr(%)

The values calculated using the equations proposed by Jarvie et al. (2005)⁴ for the wells with the highest possibility of generating hydrocarbons analysed are shown in Table 2.

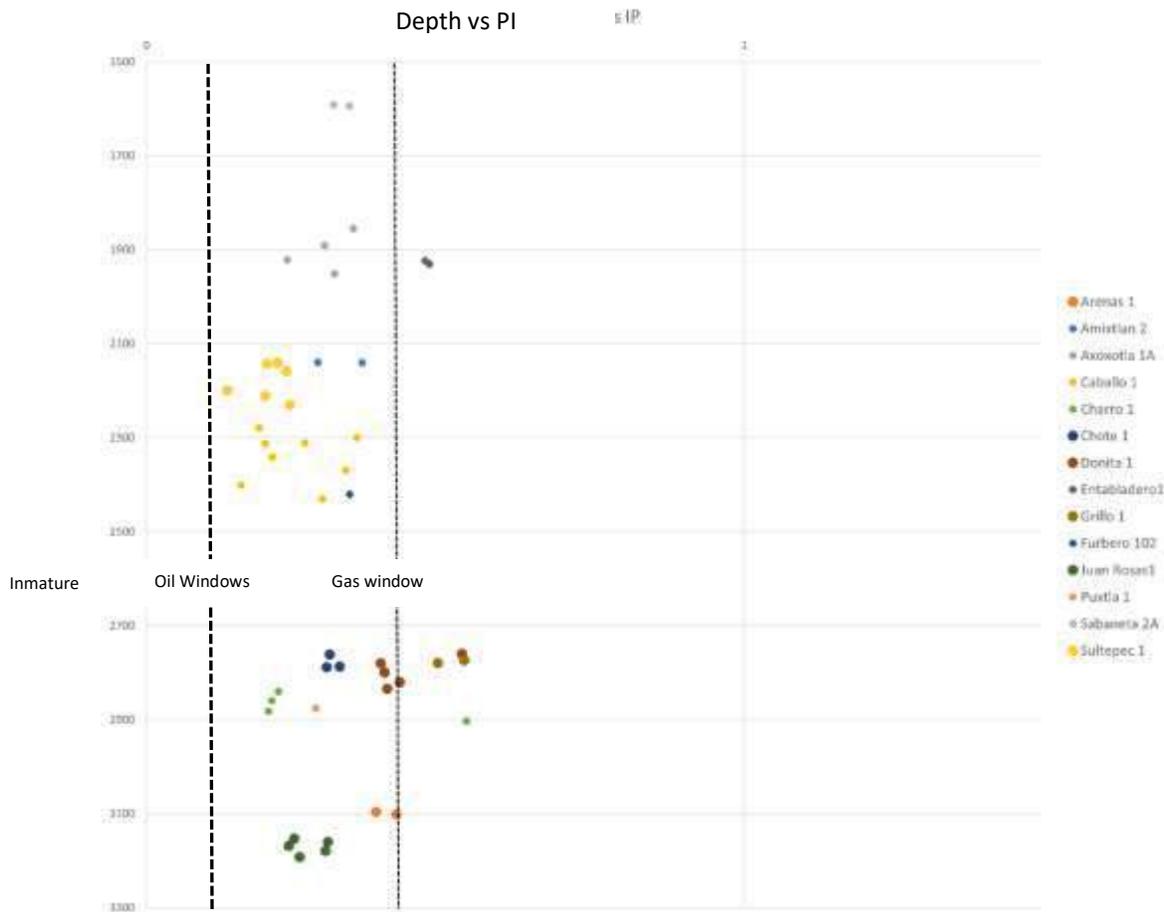


Figure 7 Variation of the Production Index (PI) with respect to the depth of the wells analyzed in the study area

Parameter	Sultepec-1	Horse-1	Donita-1	Juan Rosas-1
VRc (%)	0.71	0.8	0.67	0.64
Tmax (°C)	437	443	435	434
Tr (%)	59.27	70.07	66.72	51.41

Table 3. VRc, Tmax, and Tr values of the wells analyzed.

If the results in this table are compared with the values of the geochemical characteristics of the Barnett Basin in the USA (Table 4) that show the cut-off values proposed by Jarvie (2007) 5, it was observed that none of the four wells mentioned do not exceed the cut-off values of the Barnett Basin, which may indicate poor profitability since their potential is more akin to generating oil (Figure 10).

Tmax (°C)	Tr (%)	VRo (%)
455	80	1.0

Table 4. Cut-off values of Tmax, Tr and VRo, for a shale gas play (Jarvie 2005).

DISCUSSION

In the data analysis, the presence of Tmax early maturity values was observed in the wells Amixtlan-2, Axoxotal-1A, Charro-1, Entabladero-1, Grillo-1, Sabaneta-1, Entabladero-1, Amixtlan-1, Caballo-1, Furbero-102, Puxtla-1, Sabaneta 2A and Sultepec-1. The limitation of the number of wells and data analyzed does not allow us to know precisely the thermal history of each well and therefore the thermal evolution of the area, since there were no geothermal gradient and vitrinite reflectance (VRo) data. I consider these VRc values to be considered anomalous, however, according to the tectonic evolution of the area, regional uplift during the late Tertiary caused widespread erosion of Mesozoic rocks in most of northeastern Mexico, with the exception of the



Burgos Basin, which was subjected to rapid subsidence during the Tertiary. This could have influenced the increase in thermal maturity towards the southeast of the analyzed area.

The analysis of the parameters of TOC, Tmax, S1/S2 and IH, carried out on the 14 wells located in the study area, indicates that it presents characteristics of generator rock in most of the interval studied, presenting greater potential for oil, oil and associated gas.

Likewise, the two wells located in the center of the analyzed area (Chote-1, Sultepec-1 and Charro-1) are prone to generating oil, while the Grillo-1 and Entabladero-1 wells are mainly generators of associated gas.

CONCLUSIONS

1. Pepper, as indicated by its geochemical properties of COT, IH/IO, Tmax, S2/S3 and PP has a poor to excellent total organic carbon content, coming from type III and II kerogen, entered the hydrocarbon generation window in the early and late mature stages, producing gas, condensate and oil, although its production potential is weak to medium and it can be considered as a hydrocarbon-generating formation.
2. The Chote-1, Charro-1 and Sultepec-1 wells located in the Pimienta Fm. in the center of the study area, present better values of Tmax and VRo, generators of oil and associated gas, however, the Tr indicates that it cannot be considered as an appropriate area for the development of a shale oil type project. But it is advisable to consider more data to define its viability.
3. The spatial distribution of the COT content in the study area shows less variation in the N-W direction, so the other geochemical properties should be analyzed in this same direction.

Nomenclature

IH	Hydrogen Index [mgHC/g TOC]
IO	Oxygen Index [mgCO ₂ /g TOC]
PP	Potential Producer
VRo	Vitrinite Reflectance [%]
S1	Free hydrocarbons [mg HC/g rock]
S2	Kerogen Yield [mg HC/g roca]
Tmax	Maximum Temperature (Pyrolysis) [°C]
COT	Total Organic Carbon [wt]
Tr	Transformation Index [%]
V	Heterogeneity index

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EFFECTIVENESS OF TOPICAL APPLICATION OF AVENA SATIVA ON UREMIC XEROSIS, HYPERPIGMENTATION AND PRURITUS AMONG PATIENTS WITH CHRONIC KIDNEY DISEASE

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ABSTRACT

Dermatologic manifestations of renal disease are common findings in patients with end-stage renal disease. This quantitative experimental study investigated the effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease.

Background: *The effects of chronic kidney disease are complex and may lead to dysfunction of multiple organs, including the skin, most patients presenting with at least one dermatologic alteration. Uremic xerosis, hyperpigmentation and pruritus were having a considerable negative impact on a patient's quality of life.*

Aims: *The objectives of the study were evaluating the effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease.*

Methods: *A quasi experimental pre-test-post test control group design was used for the study. The data collected from 60 Chronic kidney disease patients, 30 each in control and experimental group, were selected using non probability purposive sampling technique. On the first day of observation, pre-test was performed. After 24 hours of allergic test, non allergic subjects were selected for the intervention. Post-test was performed on the eighth day of intervention.*

Results: *Avena Sativa had significant effect in reducing uremic xerosis ($U=164, p<0.001$) hyperpigmentation ($U=246, p<0.01$) and pruritus ($U=202, p<0.01$). There was significant association between uremic xerosis and duration of CKD ($p<0.01$) and positive correlation between uremic xerosis and pruritus (ρ is 0.56 at 0.01 level)*

Limitations and implications: *Randomization was not done and had limited time for the study. A long term study can be conducted to determine the long term effect of topical application of Avena Sativa among patients with chronic kidney disease.*

Conclusion: *Topical application of Avena Sativa was effective in reducing uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease.*

Keywords: *Avena Sativa; Uremic xerosis; Hyperpigmentation; Pruritus; Patients with chronic kidney disease*

INTRODUCTION

CKD is a worldwide public health problem, affecting over 750 million persons worldwide (Couser WG). As kidney failure advances and the organ's function is severely impaired, dangerous levels of waste and fluid can rapidly build up in the body. Skin involvement in this population can be extensive and dramatically worsen quality of life. The skin is an external reflection of much renal pathology and hence serves as an indispensable tool for the clinician.

Dermatologic examination of patients with end-stage renal disease (ESRD) has shown that 50-100% of patients have at least one dermatologic condition. A high prevalence of cutaneous disorders is expected, because most patients with ESRD have an underlying disease process with skin. (Szepietowski JC B. E.) It is necessary that health professionals who deal with these patients

on a daily basis have knowledge about these cutaneous events along with underlying disease.

Research studies shows that Avena Sativa (oats) have inherent anti-inflammatory and antihistaminic abilities. The Avenanthramides are phenolic compounds present in oats and exhibit antioxidant activity in various cell types and it can actually inhibit the release of pro-inflammatory cytokines and histamine, so colloidal oatmeal can be helpful in cases of hives. These oatmeal phenols are also impressively known for being strong ultraviolet absorbers. In addition, the use of topical formulations of colloidal oatmeal can reduce the need for and use of questionable corticosteroids (Nakhae S).

The investigator found that CKD patients are suffering from uremic xerosis, hyperpigmentation and pruritus. The health care professionals are giving importance to the other systemic changes of the illness and ignoring the cutaneous aspects of the patients.



The researcher undertook the present study because there is pressing need to address these skin problems among CKD patients

HYPOTHESES

- H1: There is a significant difference in uremic xerosis among patients with CKD between control and experimental group.
- H2: There is a significant difference in hyperpigmentation among patients with CKD between control and experimental group.
- H3: There is a significant difference in pruritus among patients with CKD between control and experimental group.
- H4: There is a significant correlation between uremic xerosis and pruritus among patients with chronic kidney disease.
- H5: There is a significant association between uremic xerosis among patients with chronic kidney disease and selected variables.

REVIEW OF LITERATURE

Both pub med and Google scholar were searched for articles pertaining to Effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease. Results were limited to English journal published from 2002-2019. The results of effectiveness of oats in treatment of itch associated with dry, irritated skin demonstrate that colloidal oat extracts exhibit direct anti-oxidant and anti-inflammatory activities, which may provide the mechanisms for observed dermatological benefits while using the colloidal oatmeal skin protectant lotion. Results found that extracts of colloidal oatmeal diminished pro-inflammatory cytokines in vitro and the colloidal oat skin protectant lotion showed significant clinical improvements in skin dryness, scaling, roughness, and itch intensity. (Michelle Garay M J. N.)

A clinical trial on Aveeno skin relief moisturizing lotion in patients with itching accompanied by skin lesions and xerosis showed that after treatment, a significant improvement of cutaneous lesions including erythema, scaling, scratching lesions, lichenization, and pruritus in 52 of 54 treated patients (96%). The lotion was well tolerated by all patients and it is an effective moisturizing emollient that reduces pruritus in subjects with xerosis. (Pacifco A)

Crossover randomized clinical trial on comparison of Avena Sativa, Vinegar, and Hydroxyzine for uremic pruritus of hemodialysis patients results showed that Avena sativa lotion significantly decreased the mean scores of pruritus intensity, consequences, and the verbal descriptor although it did not have a significant effect on the frequency of pruritus and the pruritic surface. Vinegar and hydroxyzine significantly decreased all of the scores. (Nakhaee S)

ETHICS

The research study was started after getting Institutional ethical committee clearance (ICE NO: 145/2019) and formal permissions from Principal Government College of Nursing, Kottayam,

Scientific review committee the Head of the Department of Nephrology and Medicine of Government Medical college hospital, Kottayam. The duration of the study was six weeks from 28-01-2020 to 07-03-2020. Screening of 100 subjects was done to select the samples who meet inclusion criteria. Sixty samples was selected using non-probability purposive sampling technique. Among the selected subjects, 30 subjects were then selected for experimental group and then as control group. Purpose of the study was explained to the participants and informed consent was obtained. The confidentiality of the collected data was assured.

SAMPLE SELECTION

Population

The study population comprises all patients with chronic kidney disease stage V admitted in Medical College Hospital, Kottayam

Sample

The study sample include the patients with chronic kidney disease admitted in ward 2,3,6,9 and 26 of Medical College Hospital Kottayam, who fulfil the inclusion criteria, with 30 subjects in the control group and 30 in the experimental group.

Sampling Technique

Non probability purposive sampling technique

Sample size and calculation

Sample size is calculated using the following formula

$$\text{Sample size } n = \frac{(s_1^2 + s_2^2)(Z_{1-\alpha/2} + Z_{1-\beta})^2}{(\bar{X}_1 - \bar{X}_2)^2}$$

Here, $Z_{1-\alpha/2} = 1.96$ when $\alpha = 0.05$

And when power $1-\beta = 0.8$, we have $Z_{1-\beta} = 0.842$

$(\bar{X}_1 - \bar{X}_2)^2$ are sample means and S_1 and S_2 are the sample standard deviations which are to be obtained from similar studies or pilot study²²

$$n = \frac{(1.69^2 + 2.34^2)(1.96 + 0.842)^2}{(5.21 - 3.62)^2} = 26.1$$

The total sample size is estimated as 26.1 by anticipating 10% attrition, approximately each group sample size is fixed as 30 in control group and 30 in experimental group

Eligibility Criteria

Patients with chronic kidney disease stage V who are

- able to comprehend and communicate Malayalam or English
- having uremic xerosis, hyper pigmentation and pruritus

Study Setting

The study was conducted in patients with CKD under nephrology and medical department of Govt. Medical College hospital Kottayam. At present the bed strength is 1802 with 28 clinical departments including all specialties and super specialties with all diagnostic and therapeutic facilities. The study was carried out in the nephrology ward 26 and medical wards 2,3,6 and 9.



DESIGN AND METHOD

The approach to research is the umbrella that covers the basic procedures for conducting research. The Quantitative approach was adopted for the study.

The research design selected for the study was quasi experimental pre-test-post test control group design.

The Design can be represented as follows:

C	O1		O2
E	O3	X	O4

C: Patients with CKD who were receiving routine skin care managements

E: Patients with CKD who were received topical application of Avena Sativa

O1: Pre test in control group on the first day of observation

O2: Post test in control group on the eighth day of pre test

X: Topical application of one layer of oatmeal paste to the both lower limbs for 2 times a day for 7 days

O3: Pre test in experimental group on the first day of observation

O4: Post test in experimental group on the eighth day of intervention

DESCRIPTION OF INTERVENTION

Date	Activity	Time
First day of visit	A simple explanation of the procedure was given. Informed consent was taken socio personal and clinical data was collected. Pretest was done and scores were recorded and skin patch allergy test was done.	30 minute
Second day to seventh day of visit	The prepared spreadable paste was applied to the both lower limb of experimental group. After 30 minutes of application, rinse the area with cool water. This was applied for two times a day and was continued for 7 days.	30 minute
Eighth day of visit	Post-test was performed on the eighth day of intervention.	10 minute

DATA COLLECTION PROCESS

The research study duration was six weeks from 28-01-2020 to 07-03-2020. Screening of 100 subjects was done to select the samples who meet inclusion criteria. Sixty samples were selected using non-probability purposive sampling technique. Among the selected subjects, 30 subjects were then selected for experimental group and then as control group. Purpose of the study was explained to the participants and informed consent was obtained. The confidentiality of the collected data was assured. Socio personal data were collected using the socio personal data sheet which was filled by the patients and clinical data were collected using clinical data sheet which was filled by the investigator. Pre test was conducted by assessing uremic xerosis, hyperpigmentation and pruritus on the first day of intervention and skin patch allergy test was done on selected group. Uremic xerosis was assessed by Modified El Gammal clinical score, hyperpigmentation was assessed by Felix von Luschan skin color chart and pruritus assessed using pruritus intensity assessment tool. On the first day of intervention patients who were not allergic to oat meal having the described cutaneous manifestations in the experimental group was topically applied with oatmeal paste to the lower limb for two times a day. This was continued for 7 days. Routine care was given to control group. The post test was done on the 8th day of intervention in both control and experimental group

FINDINGS

Descriptive statistics, frequency distribution and percentage were used to describe sample characteristics and Mann Whitney U test was used to determine the effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus

among patients with chronic kidney disease. The data indicated that 40% of the patients in the control group and 43.4% in the experimental group were belonged to the age group of 56-65 years. Majority of the patients in the control (56.7%) and in the experimental group (60%) were males. The data revealed that majority of the patients in the experimental group (46.7%) had high school education and 40% of the patients in the control group and 36.7% patients in the experimental group had primary education. The data revealed that majority (46.7%) of subjects in control group had no occupation and 56.7% of subjects in the experimental group were self employed. Data pointed out that most of the patients (86.7%) in control group and (90%) in experimental group were married. The data indicated that half (50%) of the patients in the control group and experimental group had the support from spouse and children respectively

The data depicts that majority (43.3%) of the patients in the control group and in the experimental group (50%) had duration of disease 1-4 years. Among 60 samples majority of the patients in control group (76.7%) and experimental group (53.3%) were having co morbidities of both diabetes mellitus and hypertension. The data reveals that majority of the patients in the control group (56.7%) had one dialysis per week and 50% of the patients in the experimental group had two dialysis per week. The data reveals that majority of the patients in the control group (63.3%) and in the experimental group (56.7%) had period on MHD less than one year. The data indicated that majority of the patients in the control group (33.3%) and in the experimental group (46.7%) had urine output above 325ml/day.



Majority of the patients in the control group (70%) and experimental group (60%) had mild uremic xerosis and 30% of patients in control group had moderate uremic xerosis and in the experimental group 33.3% had moderate uremic xerosis and 6.7% of them had severe uremic xerosis. To find out the homogeneity of the sample, χ^2 value was computed and it was found that control group and experimental group were homogeneous in the terms of pre test uremic xerosis. Data depicts that all the patients in the experimental group and control group had dark or brown type hyperpigmentation. Homogeneity of the sample were computed using χ^2 value and it was found that control group and experimental group were homogeneous in terms of pre test hyperpigmentation. Majority of the patients in both control (66.7%) and experimental group (80%) had moderate pruritus. None of the subject in the control and experimental group had

severe pruritus. To find out the homogeneity of the sample, χ^2 value was computed and it was found that control group and experimental group were homogeneous in the terms of pre test pruritus.

The mean rank of post test scores of uremic xerosis among patients with chronic kidney disease in the control group is 40.03 and in the experimental group is 20.97. The obtained U value is 164 and it is significant at 0.001 level. There is statistically significant difference in the post test scores of uremic xerosis between the control and experimental group. It is interpreted that topical application of Avena Sativa is effective in reducing uremic xerosis among patients with chronic kidney disease (see table 1)

Table 1: Mean rank, sum of ranks and U value of post test scores of uremic xerosis among patients with chronic kidney disease in control and experimental group

Group	Uremic xerosis		
	Mean rank	Sum of ranks	U
Control (n=30)	40.03	1201	164***
Experimental (n=30)	20.97	629	

The mean rank of post test scores of hyperpigmentation among patients with chronic kidney disease in the control group is 37.30 and in the experimental group is 23.7. The obtained U value is 246 and it is significant at 0.01 level. There is statistically significant difference in the post test scores of hyperpigmentation

between the control group and experimental group. It is interpreted that topical application of Avena Sativa is effective in reducing hyperpigmentation among patients with chronic kidney disease (see table 2)

Table 2: Mean rank, sum of ranks and U value of post test scores of hyperpigmentation among patients with chronic kidney disease in control and experimental group

Group	Hyperpigmentation		
	Mean rank	Sum of ranks	U
Control (n=30)	37.30	1119	246**
Experimental (n=30)	23.7	711	

The mean rank of post test scores of pruritus among patients with chronic kidney disease in the control group is 38.77 and that of experimental group is 22.23. The obtained U value is 202 and it is significant at 0.01 level. There is statistically significant

difference in the post test pruritus scores between the control group and experimental group. It is interpreted that topical application of Avena Sativa is effective in reducing pruritus among patients with chronic kidney disease. (see table 3)

Table 3: Mean rank, sum of rank and U value of post test scores of pruritus among patients with chronic kidney disease in control and experimental group

Group	Pruritus		
	Mean rank	Sum of ranks	U
Control (n=30)	38.77	1163	202**
Experimental (n=30)	22.23	667	

There is positive correlation between uremic xerosis and pruritus among patients with chronic kidney disease. The obtained Spearman correlation coefficient ρ is 0.56 and that is significant

at 0.01 level. It is interpreted that pruritus increases with uremic xerosis.



Significant association was found out with uremic xerosis and duration of CKD at 0.01 level. There was no significant association of uremic xerosis and selected variables such as education, occupation, comorbidities and number of dialysis per week

DISCUSSION

The main aim of the study was to assess the effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus among patients with CKD. The study findings reveal that topical application of Avena Sativa is effective in reducing pruritus among patients with chronic kidney disease. In a randomised controlled trial among 23 hemodialysis patients with uremic pruritus Avena sativa lotion significantly decreased the mean score of pruritus and verbal description ($p < 0.01$) (Gagnon AL) and clinical trial on Aveeno Skin relief moisturizing lotion among 54 patients with itching accompanied by skin lesions and xerosis reported that it is an effective moisturizing emollient that reduces pruritus in subjects with xerosis. ($p < 0.001$). (Michelle Garay M)

The present study reveals that there is positive correlation between uremic xerosis and pruritus among patients with chronic kidney disease, that is significant at 0.01 level. It is interpreted that pruritus increases with uremic xerosis.

The current study results were congruent with a clinical study of uremic pruritus on maintenance hemodialysis patients found that marked relationship was demonstrated between the intensity of xerosis and prevalence of pruritus. Significantly more patients with very rough skin had pruritus compared to those with rough skin ($p < 0.05$) and those with slightly dry skin ($p < 0.02$) (Szepietowski JC S. M.).

The present study explains that there was significant association was found out with uremic xerosis and duration of CKD.

The current study results were congruent with a study at a tertiary care centre regarding dermatological manifestations in chronic renal failure patients with and without hemodialysis. The mean duration of the disease in dialytic patients was 32.9 months and that in the nondialytic patients was 11.2 months. Prevalence of xerosis was more in the dialytic group 36 (61.02%) compared to the non dialytic group 23 (38.98%), with statistically significant higher prevalence in the dialytic group with p value 0.014 (< 0.05) (Chanda GM).

LIMITATIONS

Difficulties were there in making rapport with the patients and gain cooperation from them to perform the topical application as it is a newer therapy for the chronic dialysis patients.

Researcher faced drop out of 5 subjects during study due to acute worsening of their renal symptoms such as breathlessness, fluid overload etc

Long term effect of topical application of Avena Sativa was not assessed due to limited time. Randomization was not done due to limitation of time.

RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the present study, A long term study can be conducted to determine the long term effect of topical application of Avena Sativa among patients with chronic kidney disease. The study can be replicated in various settings with larger sample to facilitate generalization of results. Similar complimentary therapies may be tried to relieve the cutaneous problems of patients with chronic kidney disease. A comparative study can be conducted to determine the effectiveness of different complimentary therapies on uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease. A similar study on effect of topical application of Avena Sativa on quality of life of patients with chronic kidney disease can be done. A true experimental study can be conducted by randomization of the sample.

NURSING IMPLICATIONS

The findings of the study serve as a scientific basis for the professional and students to conduct studies on cutaneous aspects of care among patients with chronic kidney disease. Nurses should introduce topical application of Avena sativa among patients with chronic kidney disease as a complementary, cost effective, safe and effective treatment modality in reducing uremic xerosis, hyperpigmentation and pruritus.

Nurses who are caring the patients with chronic kidney disease can plan, implement and evaluate the topical application of Avena Sativa during hospitalization for reducing uremic xerosis, hyperpigmentation and pruritus. Topical application of Avena Sativa can be implemented to long term care settings for chronic renal disease patients.

CONCLUSION

The study on effectiveness of topical application of Avena Sativa on uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease was a successful research work. Based on the findings of the study the following conclusions were drawn. Patients with chronic kidney disease stage V had uremic xerosis, hyperpigmentation and pruritus. Topical application of Avena Sativa was effective in reducing uremic xerosis, hyperpigmentation and pruritus among patients with chronic kidney disease. There was statistically significant positive correlation between uremic xerosis and pruritus and there was a statistically significant association between uremic xerosis and duration of CKD. The topical application of Avena Sativa reduces these cutaneous manifestations and improves the quality of life among patients with chronic kidney disease



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CUSTOMER EXPERIENCE IN DIGITAL BAKING SERVICES WITH SPECIAL REFERENCE TO RURAL AREAS IN RANGA REDDY REGION

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ABSTRACT

This article delves into the nuanced landscape of customer experience within the realm of digital banking, with a distinctive focus on rural areas. As technology continues to reshape the financial landscape, understanding the unique challenges and opportunities faced by customers in rural settings becomes imperative. This abstract explores the dynamics of digital banking in these regions, aiming to uncover insights that can guide policymakers, financial institutions, and technologists in enhancing the overall customer experience.

KEYWORDS: Digitisation, Virtual Banking, Internet Banking, Rural Banking, Rural Consumers.

INTRODUCTION

With the introduction of digital platforms, the banking services environment has experienced a significant transition in an era characterised by unparalleled technological developments. The client experience in rural areas is a critical aspect of this transformation that has not received enough attention, despite the fact that metropolitan areas have embraced the convenience of digital banking. This study explores the complex world of digital banking services, paying particular attention to the rural areas of the Ranga Reddy Region. The complex interactions among technology, financial inclusion, and consumer satisfaction make it necessary to analyze the opportunities and problems that these rural environments bring. The goal of this research is to uncover insights that can guide strategies for improving customer experiences and fostering financial inclusiveness in the heart of Ranga Reddy's rural communities by illuminating the unique nuances of digital banking adoption and utilisation in rural contexts.

- Make sure that digital banking services are easily available in remote locations, taking into account things like device compatibility, internet connectivity, and user-friendly interfaces.
- Take steps to improve financial literacy in rural areas so that clients may better comprehend and make use of digital banking services.
- Invest in enhancing rural areas' digital infrastructure to give consumers a dependable and smooth banking experience.

LITERATURE REVIEW

According to **Amudhan, Banerjee, and Poornima (2022)**, switching from traditional to online banking is a crucial part of the digital transformation process. The way banks and other financial institutions obtain information about client involvement and how to best serve their needs is undergoing a noticeable shift. Every industry and business approach the process of embracing digital transformation—which entails integrating digital technology into every aspect of their operations—in a different way.

According to **Vivekanantham & Mekala (2021)**, the Indian economy is heavily reliant on rural areas. As a result, rural bankers are more concerned with serving their rural clientele. With the crucial aid of information and communication technology (ICT), bankers are carefully growing their online services in this era of information and communication, especially in remote expectations of their customers, and bankers are dedicated to branch locations.

According to **Ravi (2018)**, the idea of online banking has gained acceptance over time. Since online banking benefits both banks and clients, the majority of Indian banks have already adopted and implemented its services. While there are many banks that are dealing with problems and difficulties, there are also a lot of opportunities. Numerous financial innovations have occurred, including RTGS, ATMs, credit cards, debit cards, mobile banking, and more

Vinayagamorthy & Ganesan (2015) stated that digital banking is on the rise. Looking at it as another channel of banking,



the modest are its benefits and convenience it provides. However, it integration with other channels, it become a strong tool that improves the satisfaction level of customers as well as increases the opportunity of cross-selling. At the same time, the banking system must keep in mind that all digital channels of banking include internet connections along with its shortfalls that can create critical situations.

According to **Ramrakhani & Gupta (2021)**, the introduction and execution of digitalization of the financial system can close the investment gap between rural and urban areas since it stimulates a higher level of investment activity. The system's digitization aids in keeping track of client and banker transactions, which may be readily accessed when needed.

In **2020**, **Dr. Ajay Kumar Mishra Banks** are significantly impacted by the needs and tastes of their customers. The population has increased, and so has the demand for banking services. Customers are influenced by a multitude of factors, such as competitiveness, effectiveness, efficiency, speed, and level of service satisfaction.

DHANRAJ et al. (2023), **NASA Technology** has revolutionised banking and added a new facet to the financial sector. Because it's convenient and flexible, online banking has become more and more popular. For rural consumers, this idea and technology are very new; the majority have only used it in the last year.

Subrahmanyam, N., and others (2021), The banking industry has undergone tremendous change in recent years, with digital banking becoming increasingly popular as more and more people want to conduct basic financial transactions online. Digital banking offers more ease to banks and customers alike.

ESHETE & SISAY (2021), Digital banking via phone, internet, and mobile devices is becoming more and more important for banks' service marketing due to the increase in the use of digital devices and the rising demand for financial services from customers. The changing nature of the banking sector means that banks can no longer survive only on branch sales.

Dr. K. Kanniammal and K. Geetha (2019), The development of finance has been a major driver of economic expansion, especially in developing countries with little resources like India. To end poverty and promote inclusive economic growth in the country, it is essential that the poor have access to financial services

OBJECTIVES OF STUDY

- To study the impact of demographic factors affecting digital banking services provided by banks in rural areas.
- To analyze the factors influencing the hindrance of digital banking services in rural areas.
- To give suggestions, if possible, based on the study taken up.

RESEARCH METHODOLOGY

The "Customer Experience in Digital Banking Services with Special Reference to Rural Areas" research methodology employs a methodical approach to data collection, analysis, and interpretation. With an emphasis on the whole customer experience, this study attempts to investigate the special opportunities and problems associated with providing digital banking services to rural consumers. The technique will include quantitative analysis of pertinent indicators along with methods of data collection such as surveys, interviews, and observation. Furthermore, a comparison study comparing digital banking experiences in urban and rural areas will be carried out to derive significant conclusions and suggestions for raising customer satisfaction in rural areas.

HYPOTHESIS

- H0 (1): There is no significant impact of Demographic factors of customer's digital banking service utilization in rural areas.
- H0(2): There is no significant impact of Customization of digital banking services in utilizing banking services in rural areas.
- H0(3): There is no significant impact of Infrastructure facility's availability in utilizing digital banking facilities in rural areas.

Cronbach Alpha

Variables	Numbers of Items	Cronbach Alpha
Core Banking	6	.861
Infrastructure	6	.893
Customization	8	.917
Digital Banking	6	.880
Economics Development	9	.937

(Table -1: Reliability Analysis of Variables)

The reliability or internal consistency of the scales used to measure various variables is indicated by the Cronbach's Alpha values. Greater values within those variables, like Customization's.917 and Economic Development's.937, indicate

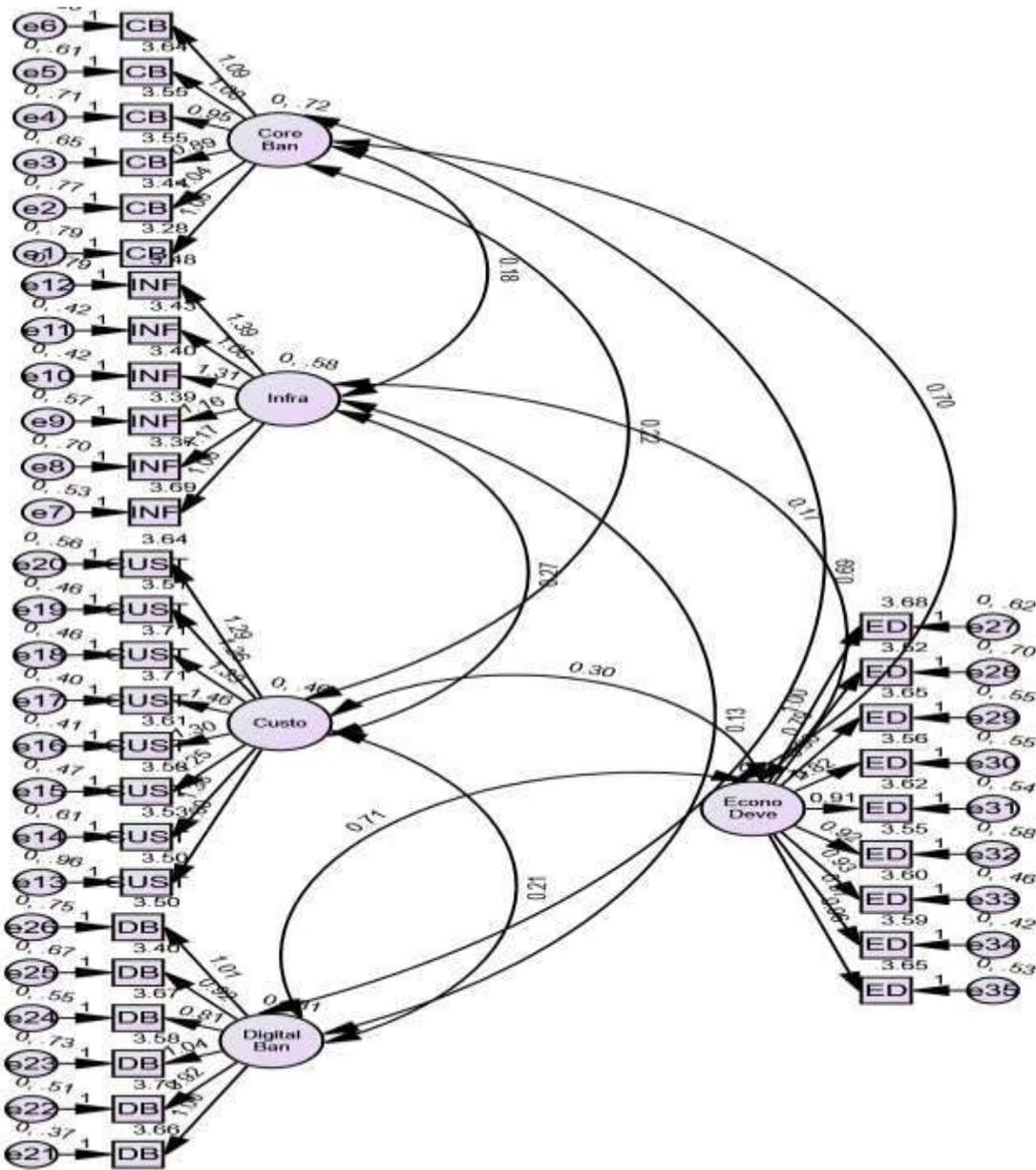
higher internal consistency between the items. Reliable scales for Core Banking, Infrastructure, Digital Banking, Customisation, and Economic Development are generally regarded as values greater than 7.



Confirmatory Factor Analysis

Fit Indices	Recommended	Observed
CMIN	Greater than 5 Terrible, Greater than 3 Acceptable, Greater than 1 Excellent	1.747
CFI	Less than 0.90 Terrible, Less than 0.95 Acceptable, Greater than 0.95 Excellent	.944
TLI	Greater than 0.9	.921
PNFI	Greater than 0.5	.616
RMSEA	Greater than 0.08 Terrible, Greater than 0.06 Acceptable, Greater than 0.05 Excellent	.078

Structural Equation Model: Path Diagram1





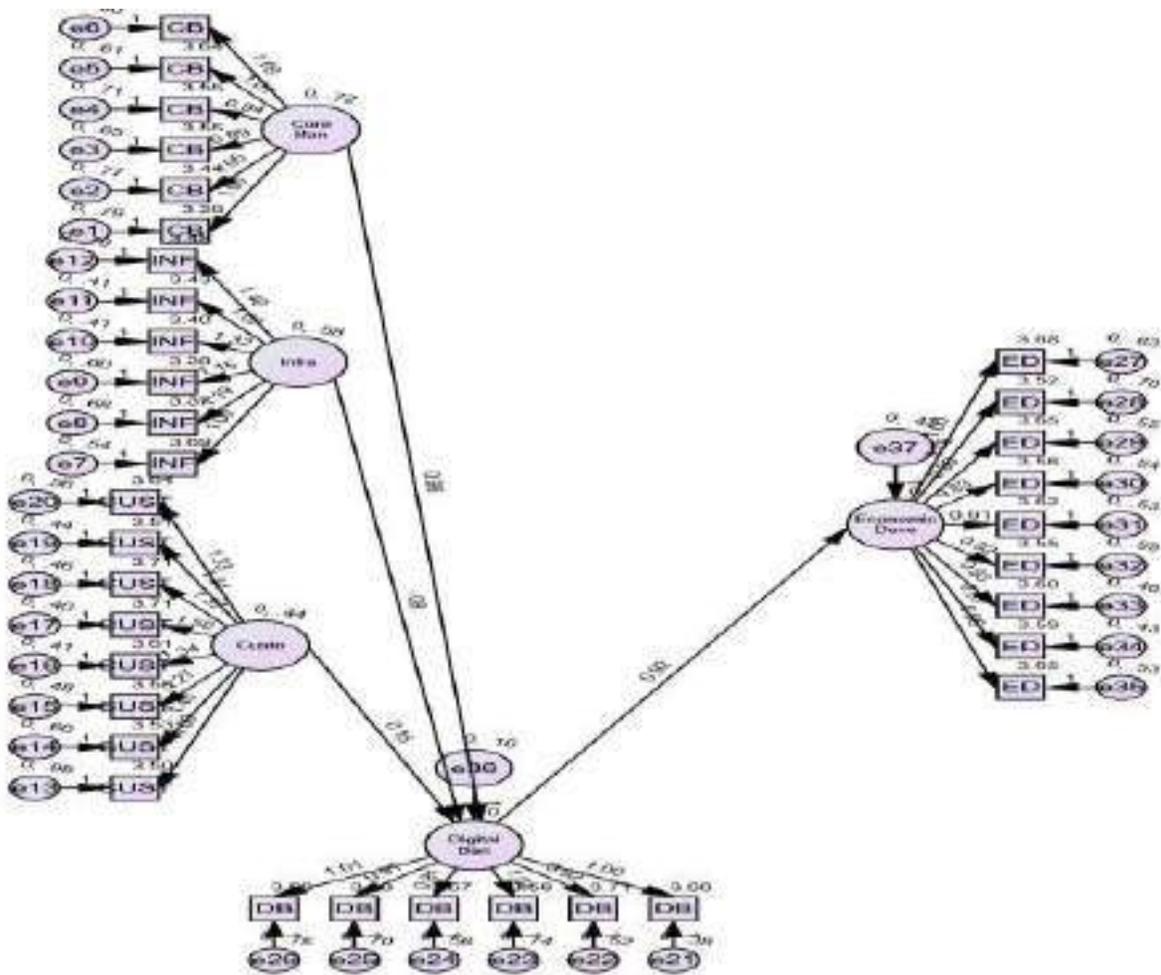
The appropriateness of the suggested model in fitting the observed data is evaluated using the Confirmatory Factor Analysis (CFA) fit indices. Tucker-Lewis Index (TLI) at .921 and Comparative Fit Index (CFI) at .944 are also near suggested thresholds. These numbers point to a reasonably good fit between the model and the data, suggesting that the model explains the observed correlations between the variables. But the Parsimony Normed Fit Index (PNFI) is less than the suggested cutoff of 0.5,

indicating possible problems with the model's complexity. With an RMSEA = .078, the Root Mean Square Error of Approximation is the goal of this research is to uncover insights that can guide strategies for improving customer experiences and fostering financial inclusiveness in the heart of Ranga Reddy's rural communities by illuminating the unique nuances of digital banking adoption and utilisation in rural contexts.

Structure Equation Model

Fit Indices	Recommended	Observed
CMIN	Greater than 5 Terrible, Greater than 3 Acceptable, Greater than 1 Excellent	1.820
CFI	Less than 0.90 Terrible, less than 0.95 Acceptable, Greater than 0.95 Excellent	.927
TLI	Greater than 0.9	.903
PNFI	Greater than 0.5	.608
RMSEA	Greater than 0.08 Terrible, Greater than 0.06 Acceptable, Greater than 0.05 Excellent	.077

Structural Equation Model: Path Diagram2





The fit indices of the structural equation model are crucial in determining how well the model fits the observed data. For example, the Comparative Fit Index (CFI), which compares the model to a null model, has a value of 0.927 that is within the acceptable range (0.95 being excellent). The Tucker-Lewis Index (TLI) is also within the acceptable range at 0.903, although it is slightly below the recommended threshold of 0.90. Finally, the Parsimonious Normed Fit Index (PNFI) at

0.608 surpasses the minimum criterion of 0.5, demonstrating a suitable fit. Though it is still within an acceptable range (0.06), the Root Mean Square Error of Approximation (RMSEA) at 0.077 is just above the excellent fit criteria (0.05). Ultimately, a good match is shown by the Chi-Square test (CMIN) at 1.820, which is much below the recommended acceptance level of 5. Overall, the model shows an acceptable fit to the observed data, however, there is potential for improvement in certain indices

Hypothesis Testing

Hypothesis	P-Value	Result
H1: Core banking & Digital Banking	0.00	Significant
H2: Infrastructure & Digital Banking	.285	Not Significant
H3: Customization & Digital Banking	.082	Not Significant
Digital Banking & Economics Development	0.00	Significant

- The p-value for H1 (Digital and Core Banking) is 0.00, showing statistical significance. As a result, the theory that Core banking and Digital Banking are related is supported by data.
- The p-value for H2 (Infrastructure & Digital Banking) is .285, above the usual significance level of 0.05. H2 is therefore seen as not important, indicating that there is not much proof of a connection between infrastructure and digital banking.
- The p-value for H3 (Customisation & Digital Banking) is .082, which is higher than the typical significance level. As a result, H3 is considered to be not significant, suggesting that there is insufficient data to establish the link between customisation and digital banking.
- With a p-value of 0.00, the association between digital banking and economic development is statistically significant. Therefore, the idea that digital banking and economic development are closely tied is supported by data.

STUDY'S FINDINGS

The below table is about the general details of respondents which shows that 57.3% and 42.7% are female participants. Regarding the age of the respondents, 63.6% are between 18 to 25 years, 12.7% are 26 to 35 years, 11.8% are 36 to 45 years of age, 8.2% are 46 to 55 years and above 55 years of age is 3.6%. About Regions, Rural regions are 29.48%, Semi-urban regions are 35.56%, and urban regions are 34.96%.

Details of Participants

Variable	Participants	%Age
Gender		
Male	63	57.3
Female	47	42.7
Total	110	100
Age in Years		
18-25	70	63.6
26-35	14	12.7
36-45	13	11.8
46-55	9	8.2
55 & above	4	3.6
Tota	110	100
Regions		
Rural Regions	25	29.48
Semi-Urban Regions	45	35.56
Urban Regions	40	34.96
Total	110	100



CONCLUSION

In conclusion, there is a lot of room for improvement and financial inclusion in Ranga Reddy Rural District when it comes to the digital banking customer experience. Even with persistent hurdles like digital literacy and connectivity, the customer experience can be improved by utilising user-friendly interfaces, customised educational programmes, and localised assistance. In order to build trust, encourage adoption, and make sure that the advantages of digital banking extend to even the most remote areas of Hyderabad's rural terrain, it is imperative that these issues be addressed.

LIMITATIONS

- Limited digital infrastructure in the Ranga Reddy Region's rural areas may make it more difficult for customers to have a seamless online experience and to access digital banking services.
- The inability of the rural populace to adjust to digital platforms may hinder their capacity to use and navigate digital financial services.
- In remote locations, there might not be enough physical banking services available, which makes it difficult for users to get the help they need or fix problems with digital banking services.
- The limited customisation choices in digital banking services may not adequately cater to the distinct financial demands and preferences of rural customers, hence potentially affecting their overall happiness and engagement levels.

Scope For Future Research: Examine ways to raise the level of digital literacy among the Ranga Reddy Region's rural residents so they may better comprehend and make use of digital banking services. In order to provide smooth access to digital banking services, investigate and suggest ways to enhance internet connectivity in rural areas while addressing infrastructural issues. Examine the wider socioeconomic implications of greater access to digital finance in rural regions, taking into account the consequences on societal development, economic empowerment, and means of subsistence. Establish systems for gathering ongoing feedback from rural clients, and evaluate how well feedback loops work to advance and enhance digital banking services in the Ranga Reddy Region. Future studies might provide important insights to improve and optimise the client experience in digital banking services by examining these possibilities, especially when considering rural locations in the Ranga Reddy Region.

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TRENDS OF ANAEMIA PREVALENCE AMONG FEMALES IN HIMACHAL PRADESH AND INDIA (2015-2020) BASED ON NFHS SURVEYS

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ABSTRACT

Introduction: This article explores the trends in anaemia prevalence among females in Himachal Pradesh and India from 2015 to 2020 using National Family Health Survey (NFHS) data. Anaemia, characterized by reduced oxygen-carrying capacity due to low red blood cell or hemoglobin concentrations, particularly impacts vulnerable groups such as children, adolescent girls, and pregnant women. In 2019, the World Health Organization reported high anaemia rates, especially in developing countries like India. Anaemia not only affects women but also influences the health of their offspring, contributing to a vicious cycle of malnutrition. The study aligns with Sustainable Development Goal 2.2, emphasizing the need to address malnutrition and nutritional needs of adolescent, pregnant, and lactating women.

Material and Methods: The study utilizes a narrative description, comparing NFHS fact sheets from 2015 and 2020 for India and Himachal Pradesh. Data is presented using MS Excel, focusing on anaemia prevalence among adolescent girls, women of reproductive age, and pregnant women. District-level indicators in Himachal Pradesh are also examined to identify poorly performing districts.

Results: The analysis reveals that anaemia prevalence among non-pregnant women aged 15-49 increased in India but remained static in Himachal Pradesh. For pregnant women, India experienced a slight increase, while Himachal Pradesh witnessed an 8.2% decrease. Overall anaemia prevalence among women aged 15-49 increased in India and remained stable in Himachal Pradesh. District-wise data highlights Bilaspur as the worst-performing district in Himachal Pradesh.

Discussion: Comparing NFHS surveys indicates an increase in anaemia prevalence among non-pregnant women in India, contrasting with a stable situation in Himachal Pradesh. Prevalence among pregnant women increased in India but decreased in Himachal Pradesh. Although Himachal Pradesh outperformed India, but anaemia prevalence remains high (40%-60%).

Conclusion: Despite Himachal Pradesh comparatively better performance, both India and the state face challenges in reducing anaemia prevalence. The Anaemia Mukht Bharat strategy needs reinforcement, and new target-based interventions should be formulated. Strengthening the role of Integrated Child Development Services (ICDS) and adopting an integrated approach across departments are crucial to breaking the cycle of micronutrient deficiency and addressing anaemia among women.

KEY WORDS: Anaemia, Women of reproductive age, India, Himachal Pradesh, Anaemia Mukht Bharat

INTRODUCTION

Anaemia is defined as the condition in which the oxygen carrying capacity of blood to organ and tissues decreases. In this the red blood cell concentration or haemoglobin concentration of blood is less than normal. In chronic conditions it causes problem in pregnant women and their children. Anaemia can be caused by poor nutrition, infections, chronic diseases like chronic kidney disease etc, pregnancy demand and family history. The population groups which are most vulnerable to anaemia include children under 5 years of age, menstruating adolescent girls and women, and pregnant and postpartum women. As per World Health Organization in 2019 the 30% of non pregnant women and 37% of pregnant women were affected by anaemia worldwide.¹ This scenario is much worse in developing countries like India where almost about half of women population is affected by the anaemia.² Anaemia not itself affect the women but it also affect her child growth during her pregnancy and sometimes even death

is being reported among women due to severe anaemia at the time of delivery. Even the anaemic women give birth to anaemic child which become vicious circle for women for her lifetime affecting her physical as well as mental health. The SDG 2.2 also talks about ending all forms of malnutrition and addressing nutritional needs of adolescent, pregnant and lactating women.³

In this article I have tried to know level of anaemia among women by population level survey in India and Himachal Pradesh. This article also explores the trend of anaemia from 2015 to 2020 in India and Himachal Pradesh. The National Family Health Survey is large scale multi-round survey carried out in representative sample of household throughout India.³ It also provide district level indicators among states. Studying the trend of anaemia in women of different age groups reported in NFHS survey help us to find out how India and Himachal Pradesh has performed regarding reduction in prevalence of anaemia from 2015 to 2020.



OBJECTIVES

- 1) To identify the trend of anaemia among females of different age groups in India and Himachal Pradesh based on NFHS-4 and NFHS-5 fact sheets.
- 2) To identify worst performing districts in Himachal Pradesh based on the trend of anaemia from 2015 to 2020 among females of different age group.

MATERIAL AND METHODS

The study adoptive a narrative description in which the NFHS fact sheets of India and Himachal Pradesh were obtained from appropriate sources. The data sets of 2015 and 2020 were compared with each other regarding anaemia among women. The cut off for anaemia among adolescent girls of age 15-19 years and women of reproductive age group is hemoglobin <12g/dl while

for pregnant women is <11g/dl. The data from all sources was entered in MS excel and then presented in form of table and graphs. The data regarding district level indicators of anaemia among females of different age groups in Himachal Pradesh are also compared to identify worst performing districts.

RESULTS

The figure 1 is showing the status of non pregnant women of age 15-49 years of age who are anaemic in India and Himachal Pradesh. The anaemia has increased in India from 53.2% to 57.2% during 2015 to 2020. While in Himachal Pradesh the anaemia has remained around 53% in 2015 to 2020. Overall the status of anaemia among non pregnant women of 15-49 years of age has increased has increased in India but remained static in Himachal Pradesh.

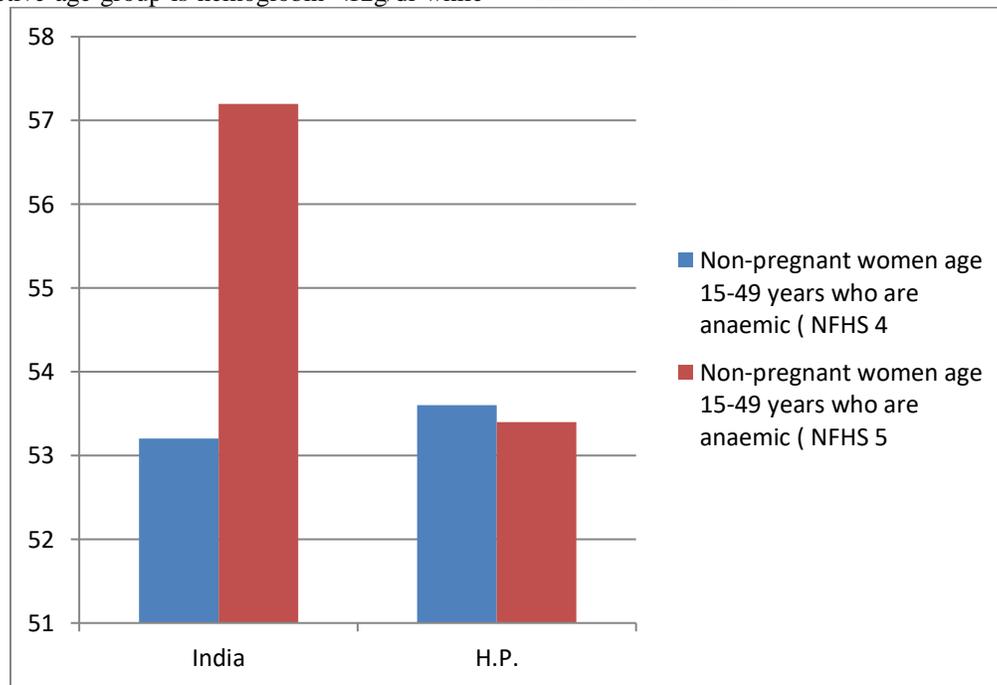


Figure 1: Comparison of anaemia among non pregnant women of age 15-49 years

The figure 2 is showing the pregnant women of age 15-49 years who are anaemic as per NFHS-4 and NFHS-5. In India the prevalence of anaemia in pregnant women has increased from 50.4% to 52.2% during 2015 to 2020. While in Himachal Pradesh

the prevalence of anaemia among pregnant women has decreased from 50.4% to 42.2%. Overall the status of anaemia among pregnant women has slightly increased in India while it has decreased by 8.2% in Himachal Pradesh from 2015 to 2020.

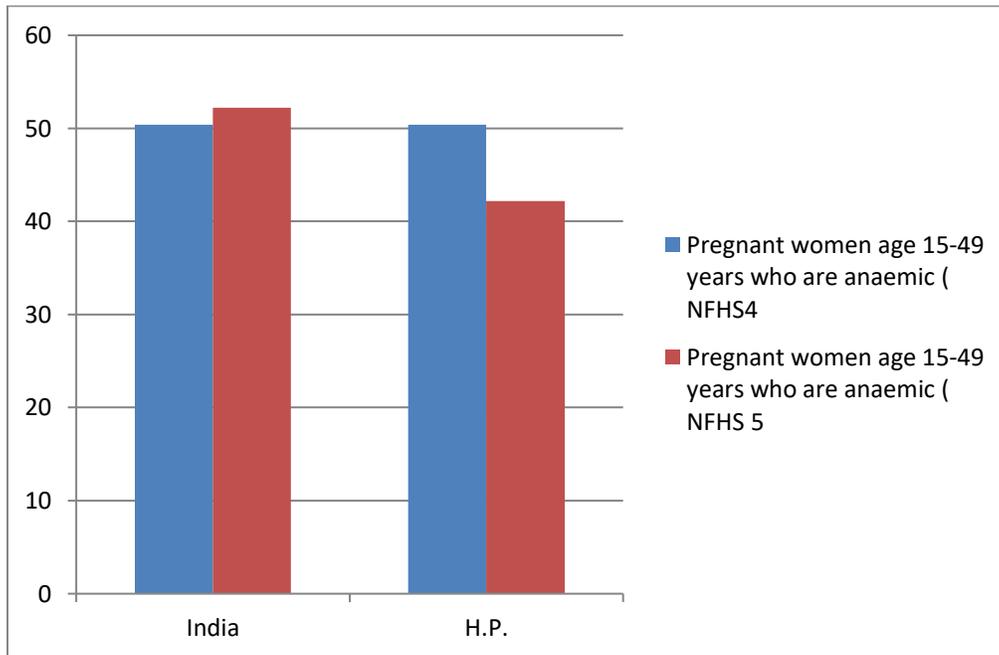


Figure 2: Comparison of anaemia among pregnant women of age 15-49 years

The figure 3 is showing all women of 15-49 years who are anaemic as per NFHS-4 and NFHS-5 reports. In India the prevalence of anaemia among all women of age group 15-49 years has increased from 53.1% to 57.0% during 2015 to 2020. While in Himachal Pradesh the prevalence of anaemia has

decreased from 53.5% to 53% during 2015 to 2020. Overall the status of anaemia among all women of age 15-49 years who are anaemic in India has increased by 3.9% and in Himachal Pradesh has remained almost static to 53% during 2015 to 2020.

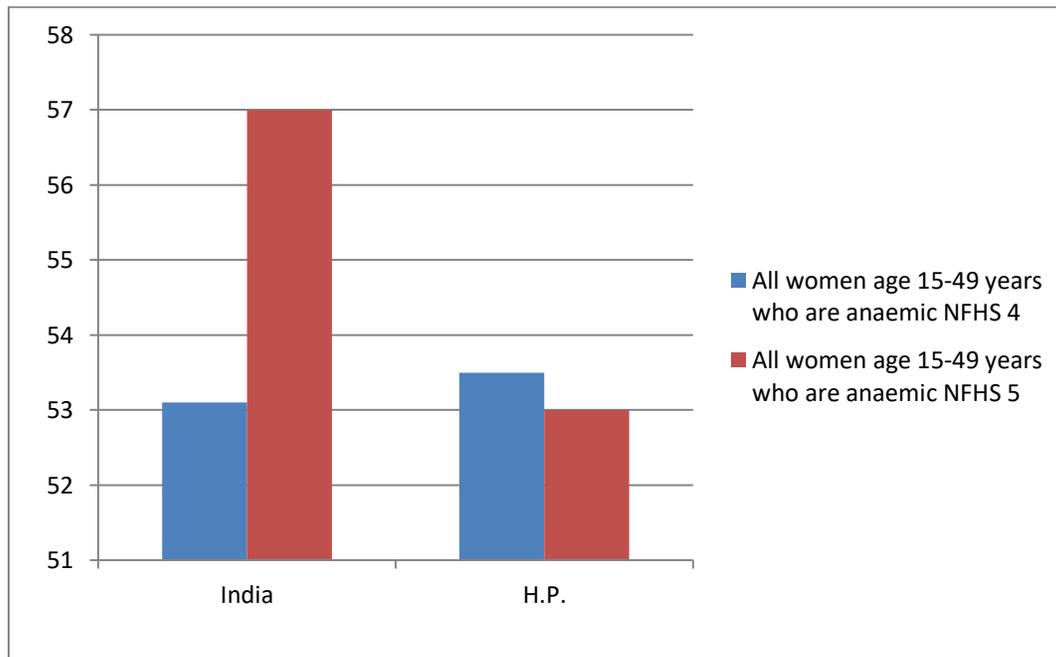


Figure 3: Comparison of anaemia among all women of age 15-49 years



The figure 4 is showing all women age 15-19 years who are anaemic as per NFHS-4 and NFHS-5. In India the prevalence of anaemia among women of age 15-19 years has increased from 54.1% to 59.1% during 2015 to 2020. While in Himachal Pradesh the prevalence of anaemia among women of age 15-19 years has

increased from 52.7% to 53.2% during 2015 to 2020. Overall the status of anaemia among all women of age 15-19 years in India has increased by 5% and in Himachal Pradesh it remained almost static around 53% during 2015 to 2020.

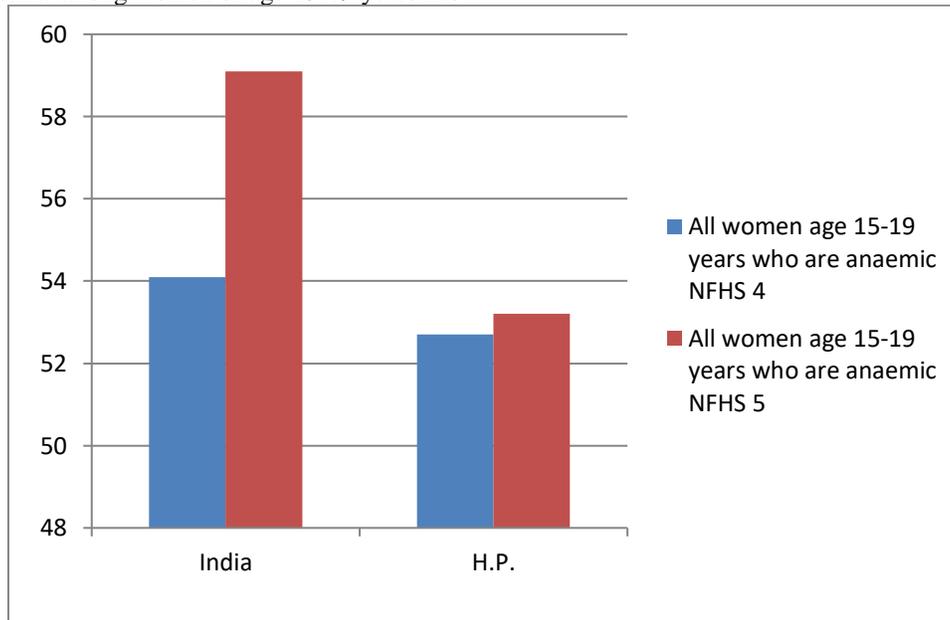


Figure 4: Comparison of anaemia among all women of age 15-49 years

The table 1 is showing the district wise prevalence of anaemia among women of different age groups in Himachal Pradesh. In this the increase and decrease of prevalence of anaemia among women of different age groups is shown from 2015 to 2020 as per NFHS data. The increase is shown by + signage and decrease is shown by - signage. The maximum increase in anaemia among non-pregnant women of age 15-49 years is shown by Bilaspur

district of 14.3%. The maximum increase in anaemia among all women of age 15-49 years is shown by Bilaspur and Una district of 13.9%. Among women of age 15-19 years maximum increase in anaemia is shown by Bilaspur district of 22.5%. The overall worst performing district in Himachal Pradesh in anaemia among women is Bilaspur district.

Name of district	Non-pregnant women age 15-49 years who are anaemic			All women age 15-49 years who are anaemic			All women age 15-19 years who are anaemic		
	NFHS-4	NFHS-5	Differences	NFHS-4	NFHS-5	Differences	NFHS-4	NFHS-5	Differences
Bilaspur	39.1	53.4	+14.3	39.1	53	+13.9	33	55.5	+22.5
Chamba	50.6	43.9	-6.7	51.2	43.7	-7.5	50.5	47.4	-3.1
Hamirpur	35.6	49.4	+13.8	35.8	49.5	+13.7	29	48.2	+19.2
Kangra	60.2	63.7	+3.5	59.7	63.4	+3.7	56.9	57.7	+0.8
Kinnaur	81	52.2	-28.8	80.8	51.7	-29.1	81	52.4	-28.6
Kullu	60	53.7	-6.3	59.5	52.8	-6.7	62	55.5	-6.5
Lahul & spiti	83.5	82.3	-1.2	83.2	82.1	-1.1	81.6	85.8	+4.2
Mandi	39.7	49	+9.3	39.8	48.9	+9.1	46.5	49.9	+3.4
Shimla	69.1	46.7	-22.4	68.7	46.5	-22.2	71.7	51.9	-19.8
Sirmaur	48.1	50.2	+2.1	48	50.1	+2.1	49.8	54.1	+4.3
Solan	67.7	48.4	-19.3	67.5	47.5	-20	70.4	44.3	-26.1
Una	46.6	60.8	+14.2	46.9	60.8	+13.9	43.4	63	+19.6

Table 1: The district wise prevalence of anaemia among women in Himachal Pradesh



DISCUSSION

The NFHS survey analysis of last two rounds showed that prevalence of anaemia among non pregnant women of 15-49 years of age has increased in India while it has remained static in Himachal Pradesh from 2015 to 2020. As per WHO report in 2019, the prevalence of anaemia among women of reproductive age group of age 15-49 years was found to be 53% which is comparable to present study⁵. The prevalence of anaemia among pregnant women of age 15-49 years has slightly increased in India (50.4% to 52.2%) while it has decreased by 8.2% in Himachal Pradesh from 2015 to 2020. As per WHO report in 2019, the prevalence of anaemia among pregnant women of age 15-49 years was 50.1% which is comparable to present study⁶.

CONCLUSION

In India the prevalence of anemia among women of different age groups have either increased or remained same from 2015 to 2020. In Himachal Pradesh the prevalence of anaemia among women have either decreased or remained same from 2015 to 2020. Overall the Himachal Pradesh has performed better in reducing the anaemia among women of different age groups than India. But still the prevalence of anaemia is very high among women of different age groups ranging from 40% to 60%. The Anaemia Mukht Bharat strategy launched to reduce prevalence of anaemia among women in reproductive age group (15-49 years). In this there is provision of prophylactic iron and folic acid supplementation to women of all age groups.⁷ But despite of all efforts the reduction in anaemia is not meeting as per our targets. We need to formulate new target based interventions for reducing prevalence of anaemia among women. The role of ICDS in improving maternal nutrition need to be strengthened to tackle anaemia among women. The integrated approach of various departments needed to take out women from this vicious circle of micronutrient deficiency.

Conflict of Interest: Nil

Sources of Support: Nil

ORCID: 0009-0005-9579-6922

Ethical Consideration

The present data is based on secondary data analysis and hence ethical considerations are not involved.

Data Availability Statement

Data used for the present study is available in public domain.

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ENHANCING GREEN BANKING PRACTICES IN INDIAN ECONOMY

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ABSTRACT

In the framework of sustainable development and environmental preservation, the Indian economy essentially should embrace green banking methods. An overview of the main goals and consequences of integrating green banking principles are proposed in this abstract. It highlights the necessity of encouraging investments in sustainable initiatives, coordinating financial decisions with environmental concerns, and improving disclosure of environmental and social hazards in a transparent manner. Adopting green banking is becoming strategically necessary as India aspires to economic progress in order to maintain a sustainable equilibrium between economic success and ecological well-being.

KEYWORDS: corporate entrepreneurship renewable energy, green banking, carbon footprints, sustainable development, environmental conservation environmental risks, Indian economy.

INTRODUCTION

Adoption of green practices essentially calls for development implementation of environmental friendly technology and reduction in carbon footprints. Bose et. al., 2018 Green banking strategies involves the use of environmentally friendly practices at every level of the operations as well as to consider environmental impact in projects investment of commercial banks (Ahmad et al., 2013) .According to Lubin and Esty (2020), sustainability is a "emerging mega- trend" and a crucial business goal that will encourage the development of green business innovation. When it comes to emissions and pollutants, bankers often "consider themselves to be in a relatively environmentally friendly industry By directing money into climate-sensitive industries, the banking sector promotes recovery, helps adapt environmentally friendly practices, and reduces climate risks (Part & Kim, 2020). Businesses that have effectively incorporated it into their operations include Cisco, HP, and Walmart (Sheth et al., 2010). Many studies have been done on green banking strategies, their different dimensions, and how banks in developed and developing nations are implementing green banking practices (Bihari, 2010; Chaurasia, 2014; Islam & Das, 2013; Shamshad et al., 2018). Financial institutions must immediately integrate their operations with sustainable development goals in light of the increasing public awareness of environmental challenges. Green banking means promoting environment friendly practices and reducing carbon footprint from banking activities Bahl, Sarita (2012). A nation's ability to prosper sustainably depends greatly on its banks, and green banking is now a buzzword. The financial services industry is changing as a result of developments in the financial, economic, and environmental spheres. This includes a comprehensive integration of ethical principles and values into banking operations, as noted by Lympelopoulos et al. (2012) and San-Jose et al. (2009). The banking industry is under intense pressure

to do business in an ethical manner from a variety of its shareholders (Frenz, 2005; Jeucken, 2001). Corporate entrepreneurship involves a great deal of uncertainty and risk. Nonetheless, well-established firms might operate as effective engines that get the best results from methodical, cautious advancement. Furthermore, changes in the external and internal environment may have an impact on the dedication to sustainable entrepreneurship and, as a result, cause the activity to get high or moderate levels of cyclical support (Kelley, 2011).

NEED FOR THE STUDY

In order to achieve sustainable development, manage the growing environmental challenges, and promote a healthy balance between ecological well-being and economic progress, research on the adoption of green banking in the Indian economy is crucial. This statement highlights the imperative of harmonizing financial operations with ecological considerations, incentivizing investments in sustainable projects, and advocating for the open and honest disclosure of environmental risks. It underscores the strategic importance of India adopting green banking principles to achieve sustained economic growth. The study becomes strategically necessary given India's commitment to the global goal of sustainable development. The country can improve its competitiveness in the global market and meet its environmental duties by using green banking principles.

As the study emphasizes, better disclosure of environmental and social dangers guarantees that stakeholders are informed and promotes a transparent and accountable culture in financial decision-making.



SCOPE OF THE STUDY

- ⊕ Examine the ways in which sustainable development and environmental protection are compatible with green banking.
- ⊕ Assess how financial institutions encourage and assist environmentally friendly and sustainable projects.

- ⊕ Explore how financial decisions, policies, and practices can be aligned with environmental considerations.
- ⊕ Explain about how implementing green banking practices is strategically important given India's economic development.
- ⊕ Investigate and discuss the positive outcomes and consequences that can be expected from the adoption of green banking.

REVIEW OF LITERATURE

Sathe	(1989).	Greener Journal of Business and Management Studies	Green Banking Strategies: Sustainability through Corporate Entrepreneurship	The findings of the research study show that the banks which are adopting the green banking Practices influence the performance of the organization.
Sahoo, Prabakar And Nayak, Bibhu Prasad	(2008)	International Journal for Research in Engineering Application & Management	Sustainable & Green Banking Practices in India- Issues and Challenges	Banking sector is one of the major stake holders in the industrial sector; it can find itself faced with credit risk and liability risk.
Douglas J, Lober	(1998)	Journal of Organizational Change Management	"Pollution prevention as corporate entrepreneurship	Pollution prevention is a new concept of the idea of environmental entrepreneurship as it is process based and focused on reducing costs rather than increasing revenues.
Bihari, Suresh Chandra	(2010)	International Journal for Research in Engineering Application & Management	Sustainable & Green Banking Practices in India- Issues and Challenges	It analyses the Social responsibility of banking sector. and the role of banks in controlling the environmental damage is extremely important.
Dhawal, Mridul and Agrwal, Ankur	(2011)	International Journal of Management and Commerce Innovations	Green practices banks banking in Indian	An Innovative initiative for Sustainable Development" concluded that Indian banks need to be made fully aware of the environmental and social guidelines
Bahl, Sarita	(2012)	Journal of Research in Business Economics and Management	Green banking - The new strategic imperative	The new Strategic Imperative" on Public banks collected manager's sector and views on green banking financial products,
Kawasaki, S.G. and More, R.P.	(2013)	International Journal for Research in Engineering Application & Management	Green practices banks banking in Indian	The highlights study that in spite of a lot of opportunity in green banking and RBI notifications, Indian banks are far behind in implementation of green banking
Sreeshach	(2014)	International Journal of science and technology and management	Green banking and environment sustainability by commercial banks in India	This study also focuses on the environmental sustainability notion that Indian banks, both public and private, have adopted
Donald F Kuratko	(2007)	Business and Economics	Corporate entrepreneurship	Corporate Entrepreneurship provides a thorough review of the literature on this topic and presents a model based on this literature.
Bhardwaj and Malhotra; Julia and Kassim, Kumar,	2013, 2019	Journal of Entrepreneurship Sustainability Asia and	Factors influencing adoption of green banking practices: Evidence from commercial banks in India	Banks that implement green banking practices help to reduce their negative environmental effects as well as their overall internal and external carbon footprints.

OBJECTIVE

- To encourage sustainable development and addressing environmental issues require the Indian economy to embrace green banking.
- To propose the development of a supportive regulatory framework that encourages and rewards banks for adopting green practices, possibly through tax incentives or regulatory benefits.
- To Determine and evaluate the environmental risks related to banking operations.



RESEARCH GAP

In order to encourage a wider adoption of green banking practices, research might assess the suitability of the current rules, point out any gaps, and make recommendations for improving the regulatory environment. Understanding the perspectives of different stakeholders, such as banks, businesses, consumers, and regulatory bodies, is crucial. Research could investigate how these stakeholders perceive green banking, their level of awareness, and the factors influencing their support or resistance to such initiatives.

OBSERVATIONS

- The Reserve Bank of India (RBI) has been actively promoting green banking practices through various guidelines and initiatives. These guidelines encourage banks to integrate environmental and social considerations into their business operations. Kawasaki, S.G. and More, R.P. (2013)
- Indian banks have started offering green finance products, including green loans and green bonds. These financial instruments are designed to fund environmentally sustainable projects, such as renewable energy initiatives, energy-efficient projects, and waste management. Customers are becoming more conscious of the environmental practices of their banks and are increasingly inclined towards sustainable banking options. As per Evangelinosetal. (2009)
- Green banking analyses the measures taken by banks to reduce their own carbon footprint. This could include investments in energy-efficient technologies, sustainable organisational practices, and responsible supply chain management. Bahl, Sarita (2012),
- The practices offered by the bank compares the adoption of green banking in India with other countries. Evaluate best practices and lessons learned from global experiences that could be applied to the Indian context.
- The reference to "different dimensions" in green banking strategies suggests that research is likely investigating multiple dimensions, including policy frameworks, technological innovations, and consumer behavior. This multifaceted approach is essential to gaining a thorough understanding of the opportunities and challenges related to putting green banking practices into practice. (Bihari, 2010; Chaurasia, 2014; Islam & Das, 2013; Shamshad et al., 2018).
- The recognition of liability and credit risk highlights the difficulties banks may have while implementing green banking practices. It implies that the banking industry's typical risk picture maybe impacted by the integration of environmentally sustainable activities, requiring cautious management and strategic planning, Sahoo, Prabakar and Nayak, Bibhu Prasad (2008),

FINDINGS

- The awareness levels generated on green banking services to business people about environmental and social responsibilities enhances eco- friendly business practice.
- The concept of green banking is a proactive and smart way of thinking with a vision for future sustainability.
- Financing renewable energy projects and sustainable businesses has been emphasised by many financial institutions. The development and adoption of green financial products and services in the Indian banking sector includes green savings accounts, eco- friendly loans, and sustainable investment options.
- When a loan is approved, the interest rate is lower than it would be at a traditional bank since green banks place a higher value on ecological benefits and other environmentally friendly criteria.

CONCLUSION

Green is the word now. There is an increase in awareness regarding protecting and conserving the environment. Green Banking is an emerging global concept. It integrates management of environment with banking activities and aims at reducing carbon footprints. India's banks and financial institutions are lagging behind in the area of green banking. Not a single bank or financial institution in our country has embraced the Equator Principle, not even for documentation purpose. It is important to get the banking and financial industries to support sustainable development. In a market economy undergoing fast change, where market globalization has increased competition, industries and businesses are exposed to harsh government regulations, costly legal actions, or consumer boycotts. Banks and other financial institutions would have to recover their investment return as an outcome. Therefore, it is imperative that banks adopt a proactive approach in incorporating environmental and ecological considerations into their lending policies. This will compel firms to invest in environmental management and utilize relevant technology and management systems. One of the well-liked ideas that is experiencing remarkable growth in the financial sector is green banking. Considering the present situations, green banking is a great approach for people to become more conscious on the effects of global warming. Every business will have a significant scope of positive impact on the environment and improve the quality of life on Earth, because of green banking. Prior to a few years ago, the majority of conventional banks did not engage in green banking or actively pursue investment possibilities in companies or industries that respect the environment. These tactics have just lately gained traction, not only with smaller alternatives and cooperative banks. Because it is process-based and concentrates on cutting expenses rather than raising revenue, pollution prevention is a novel interpretation of the concept of environmental entrepreneurship. Sustainable products and processes are acknowledged to be greatly facilitated by entrepreneurship.



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PHRASEOLOGICAL EXPRESSIONS WITH NUMBER COMPONENTS IN ITALIAN

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ANNOTATION

Although it has not been long since phraseology was formed as a separate part of linguistics, the history of its origin goes back to the early periods of language development. From the studies carried out on phraseology, it turns out that phraseologisms appeared together with the language and developed along with the language. The main focus of phraseology is on the study of phraseologisms.

This article covers the classification of Italian phraseologisms and the nature of number-component phraseologisms and the symbolism of numbers in Italian.

KEYWORDS: *phrase, number, linguistics, phraseological unit, lexemes and morphemes, semantics.*

INTRODUCTION

Phraseologisms occupy a special place in the vocabulary of the language and are one of the ways of enrichment of vocabulary. Phraseologisms have a complex structure, for the first time the Russian linguistic scientist I. I. Chernyasheva defined the term [1; 628-630].

Like other languages, the subject of phraseological phrases in Italian is one of the topics of interest and controversy, and is one of the important resources for expressing the way of life, customs of people who speak the studied foreign language. In addition to learning Italian, this also helps to understand the extent to which Italians use phraseological expressions and how much they depend on their daily lives.

Of the linguists who conducted research on phraseologisms in Italian: Italian linguist P. Toschi is an Italian and foreign language author who produced and published the following work on his proverbs and sayings: "Proverbi e modi di dire trascritti e illustrati da bambini italiani e stranieri" [P. Toschi, 1970]. Italian linguist Alfredo Geninasca has researched on Italian and French phraseological phrases and proverbs and published his dictionary: "Dizionario dei più comuni modi di dire italiani e francesi: proverbi e detti, italiani e francesi". [A. Geninasca, 1988]. Giuseppe Sessa, an Italian linguist, developed his own manual – the same one that was sought on idiomatic expressions in Italian, French, English and German. Italian linguists Paola Cotta Ramusino and Fabio Mollica have conducted considerable research on phraseology and published scholarly works, such as: "Chapter One contrastive phraseology: preliminary remarks" [Paola Cotta Ramusino, Fabio Mollica, 2020] among others.

MAIN PART

It is worth noting that phraseological expressions also have a special significance in the study of the Italian language and culture. Like other language units, the study of phraseological units is an important research topic in Italian.

Numbers are actively involved in the formation of phraseologisms. Below is a list of a number of phraseological units in Italian that have participated in the number:

Uno – with one number:

Essere il numero uno - In literal translation: a number is in the be – style. As a phrase-expresses the meaning of being the best/progressive in a field.

Armare uno scherzo – Joking with someone

Disabituarsi l'uno all'altro - Dumping together

Essere diverso uno dall'altro - Divergence

Essere in uno strettoio – Tight wear

Essere uno stinco di santo – Sinless

Farsi uno stato – Creating a situation/situation for oneself

Fare conto che uno canti – Deaf

Fare uno sfogo con qd – Open your heart to someone

Lasciare uno strascico - Leaving a trace (about illness, etc.)

Lucente come uno specchio – Clean like a mirror

Nemico numero uno - Enemy number one

Non intendersela uno con l'altro - Speaking in different languages

Per me e tutt'uno - For me everything is the same

Soffocare uno scandalo - Prevention of quarrels

Sono tutti d'uno stampo – All to be collected

The first to focus on the importance of totals in world history and culture, in particular the "two" (due), was the Greek thinker Pythagoras.



Due – with two number:

Due e quattro con il significato di «un po'» - numbers two and four represent "few/little". As a phrase, for example:

Ci prepariamo due spaghetti? – We prepare a little spaghetti.

Abbiamo fatto quattro chiacchiere al bar – We had a little talk at the bar.

Ho fatto due passi per sciogliere le gambe – I walked a step or two to spreading a foot tickle/walked a little more.

Alla festa c'erano solo quattro gatti (poche persone) – A small number of people on the holiday were bores; representing meanings such as.

Su due piedi - Literally in translation: on two legs – will be in style. As a phrase-without warning, it expresses the meaning that immediately.

For example: *Non posso partire su due piedi* – I can't leave right now.

Prendere il coraggio a due mani - In literal translation: Two captures of courage – will be in style. As an expression-means to move into action with determination.

Non c'è due senza tre - In literal translation: without the number three there will be no two – it will be in style. As a phrase-expresses the meaning that what is approved twice is also approved for the third time.

Cuore aperto a due battenti – Heart wide

A due mani - Generous

A due passi – Two step

Avere due pesi e due misure – Non objectively

Avere due coscienze - Hypocrisy

Dire due parole - Say a word or two mouths

D'un soldo farne due - Making a penny sum

Essere in due paesi - Talking about different things

Fare due parti in commedia – Making a double play

Lasciare andare due pani per coppia - Don't take it for granted

Somigliarsi come due gocce d'acqua - Like two drops of water

Trovarsi stretti fra due assi - Being in a hopeless situation

Tre – three number:

A tre cotte - In literal translation: ripe at three – will be in style. As a phrase-Skilful or has a high level of cunning, expresses the meaning of very cunning.

Avere tre pani per coppia - Triple profit

Potere andare per la fava alle tre ore – Not taking risks

Rendere tre pani per coppia - Reward with revenge

Quattro – four number:

Farsi in quattro – sweat to achieve the goal (or to help someone)/try hard

In quattro e quattr'otto-easily/at little opportunity.

In quattro e quattr'otto – Easily/at little opportunity

Sbandierare ai quattro venti – To reveal to everyone what should be kept secret.

Fare il diavolo a quattro – To show yourself very angry to achieve the result.

Parlare a quattr'occhi – Talk face to face separately (without someone).

Ai quattro capi – Quadruple

Andare in quattro - Walking on all fours

Avere quattro dita di pelo sullo stomaco – Invincible

Dire quattro parole – Say a word or two mouths

Fare il conto dei quattro soldi – Misunderstanding of each other

Fra quattro mura – Between the four walls

Non sapere formare quattro lettere – Can't add two words

Spezzarsi in quattro – Quartering

Cinque – five number:

Cercare cinque piedi al montone – Looking for something that does not exist

Contar cinque sulle dita – Being illiterate

Sei – six number:

Avere il sesto senso – Who can feel/feel good feelings.

Sette – seven number:

Essere al settimo cielo – Fly in the seventh heaven / be very happy.

Sudare sette camicie – Sweat to achieve something, to suffer.

Muovere sette volte la lingua in bocca – Thinking before talking

Nove – nine number:

Prova del nove - Uncertain evidence

Pezzo da novanta - One of the Mafia leaders (gang leader)

CONCLUSION AND DISCUSSION

The intensive research on the study of phraseological phrases and idioms in foreign languages and the achievement of new results is creating more comfort for foreign language students. Because as a result of such research, the semantic, structural-grammatical, linguistic aspects of phraseological expressions, idioms in a foreign language are analyzed. As a result, solutions are also being found to the problems of faster understanding of foreign language expressions and identification of their equivalents. Such results serve to improve not only the grammatical-lexical properties of the language for students studying a foreign language, but also the knowledge of semantic and linguistic specificity.

Italian, like other languages, is a language rich in phraseological expressions. Therefore, researching them from different sides and studying their specific aspects will make it possible to increase the vocabulary and get to know the Italian language more closely.

In conclusion, the phraseologisms in which the numbers are involved can be as many as one. As can be seen from the above examples, the set phrases of the Italian language are structurally very close to the English and Russian phraseological units. However, as for the semantics of these phrases, there may be different differences.



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DEVELOPMENT AND VALIDATION OF ATTENDANCE AND PARENTS ALERT SYSTEM (APAS)

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ABSTRACT

The purpose of this study is to solve the difficulties associated with producing school IDs, parents keeping an eye on their children, and checking attendance. This study was developed in five steps, using the Rapid Application Development (RAD) Model as a guide. The system received a perfect score of 100 percent. It received an exceptionally high overall grade in all dimensions (Mean = 4.00; Standard Deviation = 0.00) such as design, accessibility, accuracy, usability, reliability, functionality, and efficiency. The evaluators' consistent responses revealed an apparent degree of agreement, indicating a rather uniform view that the method is a superior innovation and effective in the school. Parents also commend the system as to its convenience and operational efficiency, parental involvement and reassurance, and new experience and novelty. Considerably, a new experience and a novelty garnering many positive emotional responses with acceptance despite limitations. Subsequently, the system needs not to be changed perhaps needs to be developed for future recommendation of the stakeholders. It is recommended that, when needed, the system be improved continuously over time. Moreover, teachers can use the system to pinpoint problems with its application and confirm its efficacy. It is also recommended that the system be reevaluated later to better align it. As the system is developed, school processes could be improved, leading to a more skillful, advanced, flexible, and relevant educational experience.

KEYWORDS: development and validation; Attendance; Computer System; Parents Monitoring; Quality-assurance.

CONTEXT AND RATIONALE

In the department of education, monitoring student attendance is a critical aspect in schooling. Traditionally, attendance tracking has been a manual and time-consuming process, often prone to errors and inefficiencies. However, the rapid advancement of technology has provided an opportunity for educational institutions to revolutionize the way they manage attendance through computer-based attendance systems.

Student attendance serves as an effective predictor of future academic achievement as well as of high school graduation. An analysis of Indiana attendance data indicates a direct link between absenteeism and school achievement, with chronically absent students scoring lower on achievement tests and dropping out of high school at higher rates than peers with better attendance Allensworth, E.M., & Easton, J.Q. (2007- 23).

Smith (2020- 17) conducted a longitudinal investigation into the relationship between student attendance and their academic performance. The study has collected data over an extended period to examine how attendance patterns influenced academic achievement. Accordingly, students' attendance could impact on academic success therefore students' attendance monitoring should be done in educational institutions.

Computer-based attendance systems have gained significant attention and adoption in recent years. These systems leverage cutting-edge technology, such as biometrics, RFID (Radio-Frequency Identification), QR codes, and various software solutions to automate and streamline the attendance monitoring process. By implementing such systems, educational institutions aim to achieve a variety of goals, including improved accuracy in attendance recording, time savings for both educators and students, enhanced data analysis, and a more robust foundation for fostering student engagement and accountability.

In 2018, a research team led by Parsons conducted a comprehensive study that aimed to evaluate the effectiveness of biometric attendance systems. Biometric attendance systems are technology solutions that use unique physical or behavioral characteristics of individuals, such as fingerprints, facial recognition, or iris scans, to verify and record their presence at a particular location or event. These systems have gained prominence in various sectors, including education, businesses, and government institutions, due to their potential to provide

efficient and secure attendance monitoring. Otherwise, RFID technology has become increasingly common in schools and workplaces (Smith, 2020- 203). In addition, Machine learning algorithms have shown promise in automating attendance tracking (Brown, 2021- 43). Moreover, in 2019, researchers Johnson and Williams conducted a study that examined the impact of mobile attendance apps on user engagement. This statement suggests that the study conducted by Johnson and Williams yielded findings indicating that the use of mobile attendance apps had a positive effect on user engagement.

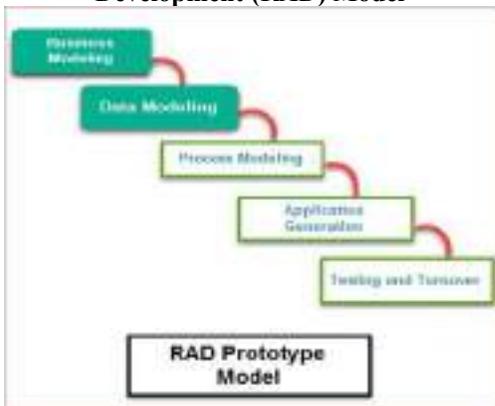
There have been several research studies in the Philippines related to attendance monitoring systems, particularly in educational institutions. These studies often explore the implementation and effectiveness of attendance monitoring systems to enhance the educational experience. De La Salle University is known for its adoption of modern technology, including attendance monitoring systems. They have used card-based systems and mobile apps for tracking student attendance. University of the Philippines campuses have implemented various attendance monitoring systems, including RFID technology and mobile apps, to track student and employee attendance. Ateneo is another prestigious university in the Philippines that has explored using technology-based attendance monitoring systems. Far Eastern University has utilized biometric attendance systems and student ID cards to track attendance. Polytechnic University of the Philippines PUP has implemented biometric and RFID-based attendance systems in some of its campuses. University of Santo Tomas has investigated using RFID-based systems for attendance tracking in their facilities. De La Salle-College of Saint Benilde: This institution has adopted mobile-based attendance apps for tracking student attendance. These are just some of the schools that implemented a system-based attendance monitoring and there are many schools even in the local schools in Pagadian City.

This research is anchored with Agile and Lean Principles: These theories are often applied to the development and improvement of computerized processes. Agile emphasizes adaptability and collaboration in software development, while Lean focuses on eliminating waste and maximizing efficiency. Accordingly, Lean and Agile principles promote focusing on work and the processes through which workflows, rather than the people responsible for the work. This approach, known as Lean and Agile development in IT, allows teams to move away from unhealthy cycles of finger

pointing and defensiveness, allowing for better collaboration, more creativity, and faster value delivery (Wang, 2011- 56).

This action research seeks to delve into the myriad aspects of computer-based attendance systems, exploring their implementation, functionality, benefits, and potential challenges within the educational landscape. The primary objective is to provide a comprehensive understanding of how computer-based attendance systems impact educational institutions and students. Also, the creation of school- produced free students' ID to be used for the QR-code scanning of the students' attendance in adherence to DepEd Order No. 45 series of 2008 specifies on the provision of identification cards at no cost for the students and the school administration shall fund this to the school MOOE.

Figure 1: Development Chart of the Attendance and Parents Alert System (APAS) using the Rapid Application Development (RAD) Model



In crafting the system, the researchers were guided by the Rapid Application Development (RAD) Model. This RAD model is a software development process based on prototyping without any specific planning. In RAD model, there is less attention paid to the planning and more priority is given to the development tasks. It targets at developing software in a short span of time. Prototyping approach is chosen so software developers can know all too well what the user wants to leave no rules as well as the technical foundation of software development, which in turn produced software that fits the needs of users A K Nalendra (2021- 3)

ACTION RESEARCH QUESTIONS

The main objective of this action research is to provide a comprehensive understanding of how computer-based attendance systems impact educational institutions such that of Zamboanga del Sur National High School – Senior High School (ZSNHS-SHS) of school year 2023-2024. The expected outcome of this study is to lessen effort on monitoring attendance and parents on their children's attendance and to adapt to the new generation of computer-based transactions and processes.

Specifically, this action research seeks answers to the following queries:

1. What is the extent of the validity of the Attendance and Parents Alert System (APAS) in terms of:
 - 1.1. Design;
 - 1.2. Accessibility;
 - 1.3. Accuracy;
 - 1.4. Usability; and
 - 1.5. Functionality?
2. What are the comments/ suggestions/ recommendations made by expert validators on the developed Attendance and Monitoring System (APAS)?
3. What are the comments and feedback of users in using the attendance and monitoring system (APAS)?
4. What changes or improvements can be made to make Attendance and Monitoring System (APAS) more useful to learners, parents, teachers, and administrators?

INNOVATION, INTERVENTION, AND STRATEGY

The researchers designed a computer program to address the problem of students' attendance and monitoring of in and out in school premises.

This research and innovation reasonably address the problems/challenges encountered by the school administrators, teachers, learners, and parents as to using computer programs in monitoring students' attendance and parents/ guardians' monitors has become increasingly common due to the efficiency and convenience they offer.

Computer-based attendance systems can cover a wide range of components to monitor and manage attendance effectively and accurately. The Attendance and Parents' Alert System (APAS) will cover the following components in the user interface, the researchers used user-friendly interfaces for both administrators and users to access and input attendance data.

Barcodes/ QR code is the mode or method of authentication. The system has database management for storage and management of attendance records and related data. It has the following functions of the integration with student information systems (SIS). The system can also generate the school ID so the school will no longer need to outsource the provision of free ID cards to the students with individualized QR codes for attendance monitoring. The system also highlights real-time monitoring. The APAS has ability to track attendance in real-time, providing immediate feedback to teachers and administrators for up to- date attendance and other reports needed such as SF 1 and SF 2. In the reporting and analytics, generation of attendance reports and analytics, which can help identify trends, patterns, and areas of concern. The APAS also has the text blast function for alerts and notifications. Automatic alerts for administrators, teachers, or parents in case of irregular attendance or tardiness will be sent through SMS or text messages to parents or guardians mobile /contact number in case of needed urgent information or announcement. The system is open for customization for flexibility to tailor the system to the specific needs and policies of the educational institution Adherence to local and national regulations regarding data privacy, security, and access control including teachers, students, parents, and administrators.

ACTION RESEARCH METHODS

Research Design

Descriptive research was utilized in this study. This is a method primarily focused with expressing the while enhancing current state and complex features of a given scenario or condition. To comprehend the causes of a certain phenomenon, it explores the nature of a scenario as it occurs during the study's timeframe (Fraenkel, Wallen, and Hyun 2011). Descriptive research's primary goal is to take a thorough picture of people, things, or situations. According to this research approach, it is imperative that the investigator have a comprehensive grasp or visual aid of the phenomenon being studied prior to the start of data collection.

The researchers sought personal information from the respondents with the intention of using this data to develop rational and well-founded conclusions and study recommendations. The descriptive method is efficient and realistic, especially when considering costs. Another benefit of this method is its versatility; it may be used to gather data that is qualitative, quantitative, or a combination of both. This gives the researcher more options when it comes to choosing data collection methods.

Whether or not statistical methods are used, descriptive research entails a purposeful and methodical process of gathering, evaluating, classifying, and organizing current conditions, practices, beliefs, trends, procedures, and cause-and-effect relationships to derive accurate and meaningful interpretations from the data. This methodology was utilized to determine the validity of the Parents Alert System (APAS).

Conversely, developmental research aims to produce knowledge that is methodically developed from real-world applications. It's a useful type of study that tests theories that have mostly been put forth and supported by customs and established practices. Furthermore, developmental research provides new methods, protocols, and instruments by means of systematic case studies



bolstered by qualitative findings. As a result, developmental research can be used to draw generalizable findings or claims, or it might yield context-specific insights meant to solve issues (Richey and Klein 2005, 23).

Participants and/or other Sources of Data and Information

The participants of this action research were the teachers, learners and parents who were selected through random sampling of ZSNHS-SHS to whom which the researcher conducted an interview for the descriptive and qualitative data to be gathered. The goal of descriptive research is to describe a phenomenon and its characteristics. This research is more concerned with what rather than how or why something has happened. Therefore, observation and survey tools are often used to gather data (Gall, Gall, & Borg, 2007). In such research, the data may be collected qualitatively, but it is often analyzed quantitatively, using frequencies, percentages, averages, or other statistical analyses to determine relationships. Qualitative research, however, is more holistic and often involves a rich collection of data from various sources to gain a deeper understanding of individual participants, including their opinions, perspectives, and attitudes. Qualitative research collects data qualitatively, and the method of analysis is also primarily qualitative. This often involves an inductive exploration of the data to identify recurring themes, patterns, or concepts and then describing and interpreting those categories. As to the quantitative part this focus on the survey during the system validation.

Another three (3) expert evaluators also evaluated the performance of the developed Attendance and Parents Alert System (APAS). The evaluators were DepEd Pagadian City Division Information Technology Officer (ITO), DepEd Regional Information Technology Officer (RITO) and DepEd Regional programmer. They are all practitioners in the ICT field and have attended several ICT Trainings.

Research Instrument

Data collection encompassed both qualitative and quantitative elements. In terms of qualitative research, interviews were organized and arranged. Participants were provided with the opportunity to articulate their perspectives, emotions, and viewpoints regarding their experiences with the Attendance and Parents Alert System (APAS) as a tool for attendance and parents monitoring in the school. A tool to rate the performance and functionality of the Attendance and Parents Alert System (APAS) was a functionality survey adapted from the criteria given by the Institute of Electrical and Electronics Engineers (IEEE) for Software Test Document (STD).

An interview guide for the parents was also used to get responses from the parents and students and the teacher who facilitated the attendance and parents monitoring.

Data Gathering Procedure

The process of gathering data for the study encompassed a series of meticulously executed activities aimed at acquiring essential information. Initially, a formal letter was dispatched to the Schools Division Superintendent, seeking permission to conduct the study within their jurisdiction. In a preliminary stage, the researcher introduced the purpose and significance of the study to the participants, ensuring they were well-informed.

To address ethical considerations, participants were provided with an informed consent form to complete. This step ensured that participants were fully aware of the research's intent and their voluntary participation, and that their involvement was conducted with the utmost confidentiality. Importantly, no coercion was applied to secure their participation.

Additionally, evaluators of the Attendance and Parents Alert System (APAS) utilized a functionality survey tool. This tool gauged the functionality of the application and was adapted from the Institute of Electrical and Electronics Engineers (IEEE) standards typically utilized for Software Test Documents (STD).

Data Analysis

This study employed a qualitative research design guided by the principles and methodologies of a case study. This approach sought to delve into how the application's implementation with teachers and students could influence the school's attendance and parents monitoring for governance. To comprehensively analyze and present this qualitative data, content analysis techniques were applied. This involved scrutinizing data obtained from face-to-face interviews, focus group discussions, and essay writing and subsequently categorizing and evaluating it to identify patterns, discern meanings, and formulate conclusions. The resultant patterns and meaningful themes were elucidated and substantiated by incorporating relevant social theories.

Measures like mean, percentage, and standard deviation were employed. Microsoft Excel was utilized for organizing the data and performing the necessary descriptive statistical calculations. The hypothetical mean range classification was adopted as follows: 1.00–1.75 – Very Low; 1.76–2.5 – Low; 2.6–3.25 – High; and 3.26–4.00 – Very High.

RESULTS AND DISCUSSION

Validation of the performance of Attendance and Parents Alert System (APAS).

Table 1 shows the results of expert-validators validation of the Attendance and Parents Alert System (APAS) in terms of performance anchoring its basis with the corresponding criteria. The overall application performance of the CLASS mobile application was very high with the mean of 4.00; and SD of 0.00. Taking into consideration the range of the deviations, it is evident to be more homogeneous. It means that the responses of the expert validators towards the application's performance terms of the criteria are the same.

Noteworthy, all application performance criteria posted are interpreted as Very High. With a significant response from validators, the table showed commendable results regarding Attendance and Parents Alert System (APAS) performance. Wherein all the indicators such as design, accessibility, Accuracy, Useability, Reliability, Functionality, and efficiency all got the mean of 4.00 and standard deviation of 0.00 respectively. According to one research, for instance, American instructors seldom ever used computers in their classes or schools in a really integrated way, even in "technology rich" schools. It opens the door for quicker and more effective procedures in schools, including the development of this new attendance tracking system. A range of information and communication technology (ICT) interventions for learning and school procedures have been established as a result of the growing use of computers in the home, in the classroom, and in schools. Yet, conflicting results have come from meta-analyses comparing these programs' effects on learning. (Karin Archer 2014-61).

Table 1. Validation of the Performance of Attendance and Parents Monitoring System (APAS)

Scale: 1.00–1.75 – Very Low; 1.76–2.5 – Low; 2.6–3.25 High; and 3.26–4.00 – Very High

CRITERIA	MEAN	SD	INTERPRETATION
<i>Design</i>	4.00	0.00	<i>Very High</i>
<i>Accessibility</i>	4.00	0.00	<i>Very High</i>
<i>Accuracy</i>	4.00	0.00	<i>Very High</i>
<i>Useability</i>	4.00	0.00	<i>Very High</i>
<i>Reliability</i>	4.00	0.00	<i>Very High</i>
<i>Functionality</i>	4.00	0.00	<i>Very High</i>
<i>Efficiency</i>	4.00	0.00	<i>Very High</i>
OVERALL	4.00	0.00	VERY HIGH



Comments/ Suggestions/ Recommendations made by expert validators on the developed Attendance and Monitoring System (APAS)

Table 2 Comments and Suggestions of the Expert Validator of the Attendance and Parents Alert System (APAS)

About the System	Expert Validators Comments and Suggestions
A. APAS as a Better Innovation	<p><i>"It is a better innovation for schools"</i> – V 1</p> <p><i>"This is a new system that most schools still don't have, it's nice that it is being made now for something new."</i> - V 3</p>
B. APAS as Useful in Schools	<p><i>"It is very helpful in schools especially where parents' involvement on the attendance of their children is also taken into consideration"</i> – V 2</p> <p><i>"I guess this system will become very useful in the school, maybe some schools will benchmark if this system will be used."</i> – V3</p>
D. Other Findings	N/A

Table 2 Presents the comments of expert validators on the Attendance and Parents Alert System (APAS). According to the validators of the Attendance and Parents Alert System (APAS), the system is a better innovation since accordingly it is very helpful, useful and it serves as a technological advancement. Also, the introduction of Attendance and Parents Alert System not only enhances efficiency but also cultivates a culture of accountability and responsibility among students that is Useful in the schools in the comments of the expert validators it states that the system is very helpful in schools especially where parents' involvement on the attendance of their children is also taken into consideration. Also, since the system is very useful in school, it can be benchmarked by others too. In the educational progress, the integration of technology has incessantly propelled schools towards modernization and efficiency. One such groundbreaking innovation, the Attendance Monitoring System (AMS), has emerged as a beacon of transformation within educational institutions worldwide. This technology smoothly integrates academic regularity with technical prowess, revolutionizing the traditional approach of taking attendance. Introducing new technologies and pedagogical techniques into the educational system is one of the largest difficulties facing the field of education. The experience, pedagogical topic knowledge, and digital competencies of teachers and other staff members must be regularly enhanced through additional training in order to guarantee a high standard of instruction (H. Demarle-Meusel, M. Rottenhofer, B. Albaner and B. Sabitzer 2020 1-3)

Comments and Feedback of Parents in using the Attendance and Monitoring System (APAS)

Factor of the APAS	Teacher-Experts Comments and Suggestions
A. Useability	<p><i>"It is fine because it is very operational and it's nice because as parent I will really know if my child really goes in the school."</i> RP 1</p> <p><i>"It is easier have the attendance because accordingly, my child doesn't need to write his name on a paper, he just needs to scan it."</i>- RP 2</p> <p><i>"It's easy to use and very functional."</i> – RP 4</p>

B. Efficiency	<p><i>"It is very nice since the parents will get information through text message if the students are already in school and already go out of the school"</i> – RP 3</p> <p><i>"It's very nice since the parents will really be informed of the child's attendance."</i> – RP 5</p> <p><i>"it is a relief as a parent knowing that my child is already in school since she just ride a public transportation going to school."</i>- RP 7</p> <p><i>"It makes me updated of my child's whereabouts."</i> – RP 11</p> <p><i>"It is okay as for me since as a parent I don't usually ask my child what time she is in and out of school, now I can know already. It makes me feel involved."</i> – RP- 15</p> <p><i>"I like it for monitoring purposes."</i> – RP 10</p> <p><i>"I like it since it is for security and assurance."</i>- RP 12</p> <p><i>"I feel more connected or involved with my child now."</i> – RP 6</p>
	<p><i>"Although I cannot reply to the text message it's fine as long as I know that my child is already in school."</i>- RP 13</p>
D.Other Findings	N/A

Parents shared their comments and feedback using the Attendance Monitoring System (APAS). Since one of the objectives of this study is to observe parents, their opinions and input are very important. The concept of parental participation is nuanced and has been described in several ways Antipkina and Ludlow (p. 856).

Several research participants particularly parents shared their appreciation of the system for operational ease and making attendance tracking simpler and more efficient. Accordingly, the system Attendance and Parents Alert System (APAS).

Moreover, parents are being involved in their children's whereabouts and felt assured that their sons and daughters are already in school. For them they feel more connected and involved in their children's school-life due to the system. Some respondents shared how receiving updates motivates them and make them feel better about the travel of their children from home to school especially those who travel using public utility vehicles.

Parents talked about how it felt to get text messages about their kids for the first time. They are expressing excitement and happiness about the new experience while yet looking in wonder. The following definitions of parental involvement were found to be used in various articles by Wilder [209–211], and they pertain to parent-child communication about school, home supervision, homework assistance, homework checking, expectations and aspirations for education, attendance and participation in school activities, reading aloud to children, communication with schools, parenting style, and parental attitudes toward education.

Additionally, some of the parent's responses focus on the limitation of the text blast functionality of the Attendance and Parents Alert System (APAS). Accordingly, there in an inability to reply to the text messages, with the understanding that the primary purpose is to know the child's attendance status. However, It was well accepted by the parent.

When respondents repeatedly use terms like "nice," "great," "very nice," and "okay" to describe their experience with the attendance notification system, it indicates a strong positive emotional response. Collectively, these positive expressions highlight a range of emotions—from satisfaction and delight to contentment and acceptance—indicating that the respondents generally view the attendance notification system favorably. These terms



showcase the diverse ways individuals express their positivity and satisfaction, emphasizing the system's perceived benefits and positive impact on their experiences as parents involved in their child's education. The study suggested a web-based facial recognition student attendance system as a solution to issues with tracking attendance. The suggested method uses a Convolutional Neural Network (CNN) to identify faces in photos, a K-NN to categorize student faces, and a deep metric learning to create facial embedding. The computer can therefore recognize faces. Because it makes life easier and more sophisticated for Tata Sutabri, Ade Kurniawan, Pamungkur, and Raymond Erz Saragih, Raymond Erz Saragih, and Ade Kurniawan, the system has received a lot of acclaim from end users (2019, 269–271).

Changes or Improvements to make Attendance and Monitoring System (APAS) more useful to learners, parents, teachers, and administrators.

Table 4 Changes or Improvements to make Attendance and Monitoring System (APAS) more useful to learners, parents, teachers, and administrators.

About the System	Expert Validators Comments and Suggestions
A. Design	<i>"It is well designed, no need to be changed but rather developed"</i> -V1. <i>"It is very nice!"</i> - V2
B. Functions	<i>"No need to be change just develop for future recommendations and observations of the stakeholders."</i> – V3 "I want to respond to the messages sometimes but there is a note that says "This is a computer generated message please do not reply." Maybe let us reply. – Parent 4
D. Other Findings	N/A

Based on the responses on the validators, The system is already well-designed so, there is no need to change it but rather develop. The system need not to be changed perhaps needs to be develop for future recommendation of the stakeholders. Parents also, would want to respond to text messages. Though in the SMS that they receive it says that this is an automated message and replies are not encouraged. The researchers are planning to add a function like e-mails or SMS for parents to interact into. Though, it is also encouraged that parents should go to school for personal purposes, some features as communication between school and parents shall be added.

CONCLUSIONS AND RECOMMENDATIONS

The study aimed to conceive and validate the Attendance and Parent Alert System (APAS), designed to address practical real-life problems involving students' attendance monitoring and parents monitoring. Also, production of SF1 and SF 2 in Zamboanga del Sur National High School- Senior High School. The researchers followed Rapid Application Development (RAD Model) as a guiding principle, resulting in the creation of a computer system intended to help teachers, administrator and parents and students in attendance checking processes and parents' monitoring.

Upon meticulous validation by expert validators, the developed computer system was deemed suitable for its intended purpose. This validation encompassed the system's overall performance. The results of this validation effort were notably positive, achieving an acceptance level that is apparent in all aspects, including design, accessibility, accuracy, useability, reliability, functionality, and efficiency. The core objective of this evaluation was to ascertain whether the computer system (APAS) fit for use. Based on the validation, other the overall system performance of the Attendance and Parents Alert System (APAS) was very high (M = 4.00; SD = 0.00). It is also evident that the application's design garnered the rating (M = 4; SD= 0.00), which entails that

all the evaluators agreed that the application's design is very attractive.

The accessibility also got very high remarks with (M = 4.00; SD = 0.00) so as with the rest of the criteria such as accuracy, useability, reliability, functionality, and efficiency which all got very high remarks. Meaning all the criteria validated got the highest score with the mean of 4.00 and the standard deviation of 0.00. This suggests that validators' evaluations uniform and consistent. Additionally, the comments or suggestions of the validators were better innovation and second is that the system is useful in schools. Also, the parent's comments and suggestions include the system's convenience and operational Efficiency.

The APAS also offers parental involvement and reassurance, and new experience and novelty. The usage of the system is considered a new experience and a novelty. Moreover, the system garnered many positive emotional responses. Based on the responses on the validators, the system need not to be changed perhaps needs to be develop for future recommendation of the stakeholders. As to the results, it's apparent that the usage of the Attendance and Parents Alert System (APAS) would significantly enhance some of the school processes such as checking of attendance, monitoring of parents, giving school announcement, generating school reports and others.

Drawing from the study's findings and conclusions, the following suggestions and recommendations have been derived through data analysis:

1. Conduct a thorough needs assessment within the school or educational institution. Understand the specific requirements, challenges, and goals related to attendance tracking. Involve teachers, administrators, and other stakeholders in this process to gather diverse perspectives.
2. Define the objectives and desired outcomes of the attendance monitoring system. Determine what you aim to achieve, such as improving accuracy, efficiency, communication, or data analysis.
3. Choose the right technology or combination of technologies that align with the institution's needs and resources. Consider options like biometric scanners, RFID cards/tags, mobile applications, web-based systems, or AI-powered recognition systems. Assess their feasibility, cost-effectiveness, scalability, and compatibility with existing infrastructure.
4. Prioritize data privacy and security throughout the development process. Implement encryption protocols, secure databases, and access controls to safeguard sensitive student information. Ensure compliance with relevant data protection regulations.
5. Design an intuitive and user-friendly interface for teachers, administrators, students, and parents. The system should be easy to navigate, requiring minimal training for users to operate effectively.
6. Ensure the attendance monitoring system integrates seamlessly with other school systems, such as student information systems (SIS), learning management systems (LMS), or administrative databases. Compatibility enhances data sharing and reduces duplication of efforts.
7. Provide customization options to accommodate diverse needs across different grade levels, classes, or educational programs. The system should be flexible enough to adapt to varying attendance-taking methods or special circumstances.
8. Conduct thorough testing and piloting of the system before full implementation. Gather feedback from stakeholders during the testing phase to identify potential issues, usability concerns, or areas for improvement.
9. Offer comprehensive training and ongoing support to teachers and staff members who will use the system. Ensure they understand the system's functionalities and troubleshooting procedures.
10. Establish a process for continuous improvement based on feedback, usage analytics, and evolving needs. Regularly



update the system with new features, enhancements, or security patches to maintain its effectiveness.

11. Set up mechanisms to evaluate the system's performance regularly. Monitor key metrics, such as attendance rates, system uptime, user satisfaction, and compliance with established objectives.

The research's conclusions highlight the Attendance and Parents Alert System's (APAS) enormous potential to improve several school procedures, such as checking attendance, keeping an eye on parents, creating student IDs, and producing reports. The process of creating, setting up, and verifying the system, along with the incorporation of current technology, greatly enhances the effectiveness and quality of the workplace. Significantly important, interest holds a compelling role as a motivational factor in the institution. It elevates the students and teachers the experiences, adapts to technological advancements, solves related problems, and heightens the sense of utility. As part of the recommendations put forth by this study, it's advised to fortify and institutionalize the utilization of the Attendance and Parents Aert System (APAS) at both the school and division level. This can be achieved by organizing seminar workshops targeting concerned teaching and non- teaching staff, ensuring widespread adoption and proficiency.

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MARKET TRENDS AND FUTURE PROSPECTS: A FORECAST OF THE GPS TRACKER INDUSTRY

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ABSTRACT

The GPS tracker industry has witnessed significant growth and innovation in recent years, driven by advancements in technology and increasing demands for efficient asset tracking and management. This research paper provides a comprehensive analysis of the market trends shaping the GPS tracker industry and explores future prospects through a forecast model. Utilizing a combination of primary research, industry reports, and market analysis, the study aims to present an in-depth understanding of the current state of the GPS tracker industry and its potential trajectory. Insights from this research will guide stakeholders, policymakers, and industry players in navigating the evolving landscape of GPS tracking technologies.

INTRODUCTION

The GPS tracker industry has witnessed substantial growth and transformation over the years, driven by advancements in technology, increasing demand for location-based services, and a growing awareness of asset and personal security. This literature review explores existing research and insights into the market trends and future prospects of the GPS tracker industry. Global positioning system (GPS) tracking system technology is one of the most innovative inventions of our time. As it continues to advance, more fleets are using it to monitor their vehicles and get driving directions throughout the world. According to the GPS tracking system market analysis, the global market has more demands in transportations, IT and telecommunications to keep an eye on its real-time information about individuals, products and vehicles. The GPS tracker online is useful to increase the security and safety of consumers and businesses.

LITERATURE REVIEW

The development of the GPS tracker industry can be traced back to its military origins. As highlighted by Smith and Johnson (2015), GPS technology's civilian applications, including vehicle tracking and personal navigation, have evolved rapidly since the U.S. government opened the GPS system for civilian use. Understanding the historical context provides a foundation for forecasting future trends.

Recent studies (Chen et al., 2020) emphasize the impact of technological advancements on GPS tracker capabilities, such as improved accuracy, real-time tracking, and integration with other IoT devices. These trends are reshaping user expectations and expanding the potential applications of GPS trackers

Analysis by Gupta and Singh (2019) reveals a shift in market

dynamics with increasing demand for specialized GPS trackers tailored to specific industries, such as logistics, healthcare, and agriculture. Understanding these market segments is crucial for forecasting future demands and preferences.

The integration of GPS trackers with the Internet of Things (IoT) has been a pivotal trend (Wang et al., 2021). This integration enhances the functionality of GPS trackers, enabling seamless communication between devices and providing users with comprehensive insights. It is essential to explore how this trend will shape the industry's future.

Research by Lee and Kim (2018) highlights the increasing concerns regarding user privacy associated with GPS tracking. Understanding the challenges related to privacy is essential for forecasting how regulatory changes and consumer attitudes might impact the industry's future. The regulatory environment significantly influences the GPS tracker industry. Examining the research on regulatory trends (Kumar & Pandey, 2017) provides insights into how future regulations might shape the industry and its growth potential.

Forecasting models, such as those proposed by Li et al. (2022), offer insights into predicting future demand for GPS trackers. Analyzing these models helps in understanding the factors influencing market growth and potential challenges.

Exploring studies on emerging technologies, such as blockchain integration (Tan et al., 2020), provides a glimpse into potential future developments that could impact the GPS tracker industry.

In conclusion, the literature review suggests that the GPS tracker industry is undergoing significant changes, influenced by technological advancements, market segmentation,



regulatory factors, and emerging technologies. Understanding these trends is crucial for businesses, policymakers, and researchers seeking to anticipate future developments and opportunities in the GPS tracker industry.

CURRENT GLOBAL SCENARIO

For the past decade, the GPS tracking industry has been growing faster. As a result, the GPS tracking devices market size is expected to hit an estimated USD 3.38 billion by 2025, with a CAGR of 11.58 percent over the forecast period. The major drivers for this market are the increased demand for advanced GPS tracking solutions, the growing adoption of real-time GPS tracking solutions in fleet monitoring, transportation, and logistic sectors, and increased upgrades of GPS software and integration with other technologies such as machine learning, AI, and IoT.

Some of the largest GPS tracking device manufacturers include Atrack Technology inc, Trackimo, Sierra Wireless, Geotab Inc., Meitrack Group, Concox Information, Ruptela UAB, and Calamp Corp. Despite the constant market growth, implementing GPS tracking is faced with key concerns, the most common being privacy, data, and battery usage. Some businesses even choose to refrain from introducing GPS-tracking apps to employees **because they fear they will be met with resistance from the same workforce.**

Asia-Pacific (APAC) will likely dominate the GPS tracking device market size during the forecast period (2023 - 2030) with a 13.5 percent CAGR. GPS tracking devices are experiencing massive growth in the Asia-Pacific region, with key players such as China, Japan, India, and South Korea among the potential markets. The main reason for the high rate of development is due to the rising prevalence of online food deliveries, e-commerce stores, and taxi services.

CRITICAL AREAS OF APPLICATION TRANSPORTATION AND LOGISTICS INDUSTRY

Trucks, trains, buses, and taxis rely heavily on GPS functionality for real-time vehicle tracking, fleet management, and route optimization. Using the best employee GPS tracking apps, businesses can stay connected with their drivers or field employees and inform customers about their estimated time of arrival or possible delays.

According to the 2023 Fleet Technology Trends Report, fleet businesses that invest in GPS tracking software realize true value from their investment within a short time. Another market research also shows that about 86 percent of fleets now use telematics, a significant increase from 48 percent two years ago and 82 percent in 2018.

The results of using GPS tracking are also promising. The same survey shows that by using GPS fleet tracking software, 42 percent have recorded fewer safety incidents, 62 percent have reported a positive ROI, and 55 percent have seen a reduction in fuel costs from telematic software, which is good news

considering that fuel is one of the largest expense for 32 percent of fleets. GPS fleet tracking solutions have also helped about 42 percent of users improve routing, 48 percent improve customer service, and 4 percent improve productivity - all while contributing to a better bottom line.

CONSTRUCTION INDUSTRY

GPS tracking in construction is used to monitor employee attendance, track equipment, and track the overall project's progress.

Items such as trucks, power tools, and other essential on-site equipment are excellent targets for theft. A recent survey shows construction-related crime has increased by 35 percent over the past year, roughly 13 incidents per day. The cost of tools and equipment stolen from construction sites and tradespeople's vehicles topped USD 8.4 million last year. Out of that, equipment stolen from vehicles amounted to half of that figure. This shows how vital GPS tracking is to help capture data, including location, usage, engine hours, idle time, and on-site job time. Location-based vehicle tracking systems can also ensure drivers carrying loads from one location to another do not take unsafe routes or waste time idling. Approximately 39 percent of drivers report idling for three to four hours per day, while an additional 14 percent indicate idling for over four hours daily. GPS tracking software can reduce wasted time and ensure drivers obey safety regulations.

HOME HEALTHCARE

The home healthcare industry also uses GPS tracking a lot. For example, mobile healthcare personnel may perform ambulance dispatches, blood delivery, medicine distribution, routine mobile health check-ups, and other activities.

GPS fleet tracking ensures all these operations are done successfully within the specified period. They help hospitals know where their field healthcare providers and vehicles are, what they're doing, where they stopped, and the duration of each stop. In addition, these tools can help you create detailed reports for location data for deeper analysis.

In addition to tracking mobile healthcare personnel, GPS trackers can also be used to prevent the theft of medical supplies and equipment. Sadly, medical supplies theft accounts for over 40 percent, with the median value of pharma theft topping \$100,000 even for the smallest medical supplies theft.

GPS trackers can be installed discreetly on vehicles to monitor drivers' progress and their shipments. Anti-theft GPS tracking can prevent theft in the first place, as the fleet will be continuously monitored. In the event of theft, GPS tracking equipment provides valuable information that increases the chance of recovery.

COURIER / DELIVERY SERVICES

As more people continue to rely on e-commerce stores for all their purchasing needs, quick fulfillment and delivery are no longer "good to have" but necessary for a better online shopping



experience. To stay ahead of the competition, delivery service providers and major retailers are improving their fleet management, delivery speed, and overall user experience.

Traffic congestion is among the major factors affecting route planning and delivery. Traffic congestion costs organizations nearly USD 74 billion annually in the US alone.

According to a study by the National Institute of Standards and Technology, GPS tracking software with route planning can help reduce transportation costs by up to 20 percent. Businesses can also save up to \$8,700 per driver annually through route optimization and reduction in travel time. As a matter of fact, improved route planning can cut delivery time by 15 percent and improve efficiency by 10 percent.

CURRENT INDIAN SCENARIO

India based Markets and Markets says that the GPS tracking device market is expected to reach USD 2.89 billion by 2023, growing at a CAGR of 12.91% between 2017 and 2023.

The numbers from these various research companies may vary, as do their periods of study. With the Indian government pumping in Rs. 6.92 trillion into road construction over the next five years through the Bharat Mala infrastructure development scheme and funding for the National Highway Authority of India (NHAI), things are going to smoothen out for businesses dependent on road transport. Businesses such as logistics will be on a growth trajectory. With the e-way bill implemented, things are further bringing in ease to transporters as they spend less and less time at inter-state check points.

Public Transport: India plans to spend Rs 1.91 trillion on the development of 89 Smart Cities. Of this, a huge spend is allotted for bus rapid transit corridors, e-rickshaws, intelligent traffic management, fleet tracking, and more.

According to the Ministry of Road Transport and Highways, India's national highway network is expected to cover 50,000 kilometres by 2019, with around 20,000 km of works scheduled for completion in the next couple of years.

Many cities are embarking on Metro projects. This effectively brings about better transport avenues for the citizens. But adding in GPS tracking and further intelligence to the systems, the state governments can inject considerable ease and convenience into their public transport setups. Daily commute becomes predictable, with information of next available buses and trains at the fingertips of citizens. This also boosts the tourism to the state, as travelers find it easier to explore places, rather than be at the mercy of touts and guides.

Emergency Services: Ambulance, fire and police services need GPS tracking far more than any industries. According to the Journal of Emergency Medical Services, "India's healthcare industry is growing at a rapid pace and is expected to become a \$280 billion industry by 2020 with a high percent of global stakeholder involvement. Improvement in healthcare infrastructure and facilities and ease of access to them is the

only way India can fight against diseases. Emergency Medical Services (EMS) is an integral part of India's health and its growth is irreversible."

With emergency healthcare still a distant dream for most parts of India, ambulances and mobile health units have a large role to play in this growth. Enabling them will be GPS tracking devices so they are able to serve the population efficiently and quickly.

Educational Institutions: With rising concerns around safety of students, especially school students, parents are justified in demanding better monitoring of the transport machinery, so they are better clued in about the whereabouts of their wards. While the educational institution will no doubt benefit from various cost savings and improved efficiencies that reliable GPS tracking system can bring, they can also communicate the safety and security measures in place for their students. With added features to send alerts to parents about delays and other concerns, GPS tracking solutions can enable schools to streamline their bus movements without having to be answering frequent phone calls from parents.

Construction: The Government of India is giving a massive push to the infrastructure sector by allocating Rs 5.97 lakh crore (US\$ 92.22 billion) for the sector in its 2018-19 budget. This is expected to inject fresh energy into various sectors including construction. Typically construction involves use of high end equipments of various types such as excavators, earthmovers, mixers, generators and more. Having the ability to know where each of them are at any point in time can lead to their more efficient use by smart deployments to sites where they are actually needed. GPS tracking also ensures that their theft and misuse can be minimized or even avoided.

CONCLUSION

In conclusion, the GPS tracker industry is poised for continued growth and innovation, driven by the increasing integration of GPS technology across various sectors. The market trends indicate a rising demand for real-time location services, asset tracking, and fleet management solutions. As the industry evolves, stakeholders should pay attention to the convergence of GPS with emerging technologies such as IoT and edge computing. The forecast for the GPS tracker industry suggests a promising future, with opportunities for technological advancements and the development of new applications. This research provides a foundation for industry players, policymakers, and researchers to navigate the dynamic landscape of the GPS tracker industry and capitalize on emerging trends.

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A STUDY ON CREDIT RATING ON INVESTMENT BANKING IN INDIA

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ABSTRACT

The present Research study on Credit rating on Investment Banking in India is one of the measurement of credit rating system and agencies. A credit rating is an opinion of a particular credit agency regarding the ability and willingness an entity (government, business, or individual) to fulfill its financial obligations in completeness and within the established due dates. A credit rating also signifies the likelihood a debtor will default. It is also representative of the credit risk carried by a debt instrument – whether a loan or a bond issuance. A credit rating is, however, not an assurance or guarantee of a kind of financial performance by a certain instrument of debt or a specific debtor. The research study concluded that in India, the Securities and Exchange Board of India (SEBI) is the primary authority that approves or regulates Credit Rating companies in India and their various functionalities. A good credit rating indicates consumer's higher creditworthiness and lower risk of default for the lender/ investor and can thus help the borrowing entity access loans at low interest rates along with longer repayment tenure. Credit rating involves evaluating the creditworthiness of entities, usually governments and businesses, by Credit Rating Agencies (CRAs), such as CRISIL, ICRA, CARE, etc. A good credit rating indicates higher creditworthiness and a lower risk of default for the lender and thus, may help an entity avail credit more easily and at considerable rates of interest. Credit ratings that are assigned to entities also serve as a benchmark for financial market regulations.

KEYWORDS: *Credit rating, score, agency, approvals or regulates, investment banking*

INTRODUCTION

A credit rating is an opinion of a particular credit agency regarding the ability and willingness an entity (government, business, or individual) to fulfill its financial obligations in completeness and within the established due dates. A credit rating also signifies the likelihood a debtor will default. It is also representative of the credit risk carried by a debt instrument – whether a loan or a bond issuance. A credit rating is, however, not an assurance or guarantee of a kind of financial performance by a certain instrument of debt or a specific debtor. The opinions provided by a credit agency do not replace those of a financial advisor or portfolio manager. credit agency evaluates the credit rating of a debtor by analyzing the qualitative and quantitative attributes of the entity in question. The information may be sourced from internal information provided by the entity, such as audited financial statements, annual reports, as well as external information such as analyst reports, published news articles, overall industry analysis, and projections. A credit agency is not involved in the transaction of the deal and, therefore, is deemed to provide an independent and impartial opinion of the credit risk carried by a particular entity seeking to raise money through loans or bond issuance. Presently, there are three prominent credit agencies that control 85% of the overall ratings market:

- Moody's Investor Services,
- Standard and Poor's (S&P), and
- Fitch Group.

Each and every agency uses unique, but strikingly similar, rating styles to indicate credit ratings.

Types of Credit Ratings

Each credit agency uses its own terminology to determine credit ratings. That said, the notations are strikingly similar among the three credit agencies. Ratings are bracketed into two groups: investment grade and speculative grade. Investment grade ratings mean the investment is considered solid by the rating agency, and the issuer is likely to honor the terms of repayment. Such investments are typically less competitively priced in comparison to speculative grade investments. Speculative grade investments are high risk and, therefore, offer higher interest rates to reflect the quality of the investments.

Users of Credit Ratings

Credit ratings are used by investors, intermediaries such as investment banks, issuers of debt, and businesses and corporations. Both institutional and individual investors use credit ratings to assess the risk related to investing in a specific issuance, ideally in the context of their entire portfolio. Intermediaries such as investment bankers utilize credit ratings to evaluate credit risk and further derive pricing of debt issues. Debt issuers such as corporations, governments, municipalities, etc., use credit ratings as an independent evaluation of their creditworthiness and credit risk associated with their debt issuance. The ratings can, to some extent, provide prospective investors with an idea of the quality of the instrument and what kind of interest rate they should be expecting from it. Businesses and corporations that are looking to evaluate the risk involved



with a certain counterparty transaction also use credit ratings. They can help entities that are looking to participate in partnerships or ventures with other businesses evaluate the viability of the proposition.

Credit Score

A credit rating is used to determine an entity's creditworthiness, wherein an entity could be an individual, a business, a corporation or a sovereign country. In case of a loan, the rating is used to establish whether a loan should be rendered in the first place. If the process goes further, it helps in deciding the term of the loan such as dates of repayment, interest rate, etc. In the case of bond issuance, the credit rating indicates the worthiness of the corporation or sovereign country's ability to repay the bond payments in due time. It helps the investor evaluate whether to invest in the bond or not. A credit score, however, is strictly for indicating an individual's personal credit health. It indicates the individual's ability to undertake a certain load and his or her ability to honor the terms and conditions of the loan, including the interest rate and dates of repayment. A credit score for individuals is used by banks, credit card companies, and other lending institutions that serve individuals.

CREDIT RATING AGENCIES IN INDIA

1. Credit Rating Information Services of India Ltd. (CRISIL)

Incorporated in 1987, CRISIL Ratings Limited (A subsidiary of CRISIL Limited, an S&P Global company) is a full-service credit rating agency that serves investors, lenders, issuers, and market intermediaries and regulators by covering banks, NBFCs, PSUs, manufacturing companies, financial institutions, state governments, urban local bodies, etc. Credit Rating Information Services of India Limited (CRISIL) evaluates the creditworthiness of commercial entities based on their strengths, market reputation and market share. The credit rating agency helps investors make informed investment decisions by providing credit ratings for companies, organisations and banks. CRISIL generates and provides various ratings services, such as Independent Credit Evaluation, Corporate and financial Sector ratings, Fund Ratings, Recovery Risk Ratings, Expected Loss (EL) Ratings, etc. It also offers services related to Structured Finance and Insurance Hybrids. The rating generated by the agency ranges from AAA to D, where in AAA is the highest or credit worthy and D being the lowest or even defaulted.

2. Investment Information and Credit Rating Agency of India (ICRA) Ltd.

ICRA Limited (formerly Investment Information and Credit Rating Agency of India Limited) is an independent and professional investment Information and Credit Rating Agency. Formed in 1991, ICRA offers guidance and information to institutional and individual investors and creditors. It rates rupee-dominated debt instruments issued by commercial banks, NBFCs, PSUs, manufacturing companies and municipalities. The agency uses a transparent rating system to assign comprehensive credit ratings to corporates. It specialises in assigning corporate

governance rating, mutual funds rating, structured finance rating, performance rating, etc.

3. Credit Analysis and Research (CARE) Ltd.

Established in 1993, Credit Analysis and Research Limited (CARE) is an experienced credit rating agency that covers various market sectors, including infrastructure, manufacturing, and financial sector, including banks and non-financial services. The agency provides ratings to companies related to developing bank debt and capital market instruments that include CPs, corporate bonds and debentures, and structured credit. Its credit ratings can be used by investors to make informed decisions on the basis of credit risk and risk-return expectations. CareEdge Ratings' (CARE Ratings Ltd.) manages and operates its wholly owned subsidiaries, such as CARE Advisory, Research & Training Ltd. and CARE Risk Solutions Pvt Ltd.

4. Acuite Ratings & Research Ltd.

The Acuite Ratings & Research Limited (Formerly known as SMERA Ratings Limited) is a SEBI registered and RBI accredited credit rating agency that offers ratings to companies serving structured finance, corporate and financial sectors. Its earlier range of products and services portfolio included Bank Loan Ratings, SME Ratings, Bond Ratings, CP Ratings, etc. However, currently the agency's primary services include Bond & Bank Loan Ratings, Economic Analysis and Financial Research services. Largely, Acuite offers services to largely small-sized private corporates, and public sector organizations like Nuclear Power Corporation, and renowned companies in the financial sector. The agency offers credit rating services to companies serving various sectors, such as banking, telecom, IT & ITes, steel, aviation, oil and gas, retail, etc.

5. Brickwork Ratings India Private Ltd.

Brickwork Ratings (BWR) is a SEBI registered and RBI accredited Credit Rating Agency that offers rating services on Bank Loans, Fixed Deposits, Non-convertible debentures (NCD), Commercial Paper, Securitised paper, Security receipts, etc. The agency offers credit ratings for banks, financial institutions, large corporate customers, and state and local governments. BWR offers a wide range of rating services and products related to Capital Market Instruments and Bank Loans for the Corporate, Financial, Infrastructure and Insurance Sectors, PSUs, State Government, Municipal and Urban Local Bodies, etc.

6. India Ratings and Research Pvt. Ltd.

In India Ratings and Research (Ind-Ra), a wholly owned subsidiary of the Fitch Group is one of the leading credit rating agencies recognized by SEBI and accredited by RBI. Ind-Ra offers credit rating services to banks, insurance companies, corporate issuers, finance and leasing companies, urban local bodies and managed funds, structured finance and project finance companies. With its Head office in Mumbai, the agency operates from its seven branch offices across India, including Delhi, Chennai, Kolkata, Ahmedabad, Bengaluru, Hyderabad and Pune.



7. INFOMERICS Valuation and Rating Private Ltd. Integrated Financial Omnibus Metrics Research of International Corporate Systems

INFOMERICS Valuation and Rating Private Limited is a SEBI registered and RBI accredited Credit Rating Agency that provides deep analysis and evaluation of creditworthiness and ratings of Banks, NBFCs, Large Corporates and Small and Medium Scale Units (SMUs). INFOMERICS offer credit rating services money market & capital market instruments and borrowing programmes,

such as Non-Convertible Debentures, Commercial Papers, Tier I & Tier II Bonds, Perpetual Bonds, Structured Obligations (including Guarantee Backed Debt programme), and Securitisation Transactions. The agency also rates Mutual Funds and Alternative Investment Fund schemes. Its grading services include Corporate Governance rating, and Grading of Construction entities, Engineering & Management institutions, Initial Public Offerings (IPOs), etc.

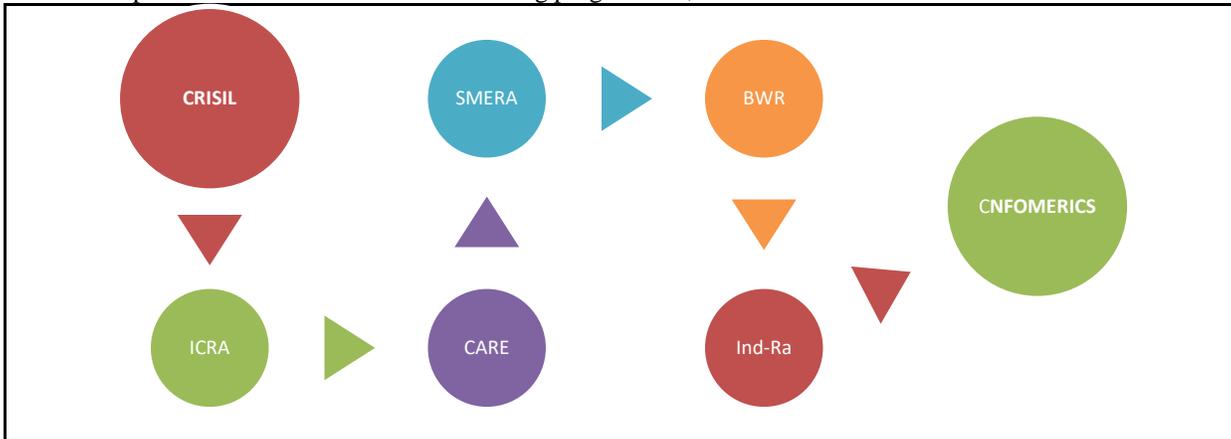


Figure:1 Credit rating agencies in India

REVIEW OF LITERATURE

Itay Goldstein, Chong Huang (2020), Credit Rating Inflation and Firms' Investments, *The Journal of Finance*, Volume 75, Issue 6, December 2020, Pages 2929-2972. The research study analyzes credit rating effects on firm investments in a rational bond financing game that features a feedback loop. The credit rating agency (CRA) inflates the rating, providing a biased but informative signal to creditors. Creditors' response to the rating affects the firm's investment decision and thus its credit quality, which is reflected in the rating. The CRA might reduce ex ante economic efficiency, which results solely from its strategic effect: the CRA assigns more firms high ratings and allows them to gamble for resurrection. We derive empirical predictions on the determinants of rating standards and inflation and discuss policy implications. **Anna Bayona, Oana Peia, Razvan Vlahu (2023)**, Credit Ratings and Investments, *De Nederlandsche Bank Working Paper No. 776*. The research study how inflated credit ratings affect investment decisions in bond markets using experimental coordination games. Theoretical models that feature a feedback effect between capital markets and the real economy suggest that inflated ratings can have both positive and negative real effects. We compare markets with and without a credit rating agency and find that ratings significantly impact investor behaviour and capital allocation to firms. We show that the main mechanism through which these real effects materialize is a shift in investors' beliefs about the behaviour of other investors rather than firms' underlying fundamentals. Our experimental results suggest that the positive

impact of inflated ratings is likely to dominate in the presence of feedback effects since ratings act as a strong coordination mechanism resulting in enhanced market outcomes.

OBJECTIVES OF THE STUDY

1. To study the credit rating system on banking sectors.
2. To study the approvals or regulates credit rating agencies.

CONCLUSION

The research study concluded that in India, the Securities and Exchange Board of India (SEBI) is the primary authority that approves or regulates Credit Rating companies in India and their various functionalities. A good credit rating indicates consumer's higher creditworthiness and lower risk of default for the lender/investor and can thus help the borrowing entity access loans at low interest rates along with longer repayment tenure. Credit rating involves evaluating the creditworthiness of entities, usually governments and businesses, by Credit Rating Agencies (CRAs), such as CRISIL, ICRA, CARE, etc. Credit ratings are usually expressed as letter grades. Whereas, credit scores usually help determine the creditworthiness of individuals and are calculated on the basis of the credit history found in the credit report. Credit scores are computed by four major credit bureaus in India including TransUnion CIBIL, Equifax, Experian and CRIF High Mark. Credit score is a 3-digit number ranging between 300 to 900, where a score closer to 900 is generally considered to be a good by lenders. A good credit rating indicates higher



creditworthiness and a lower risk of default for the lender and thus, may help an entity avail credit more easily and at considerable rates of interest. Credit ratings that are assigned to entities also serve as a benchmark for financial market regulations.

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RELATION OF TIKTA RASA WITH PHYSIOLOGY OF WOUND HEALING :A REVIEW

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ABSTRACT

Wound healing is the complex biological processes in the human body. It involves the the phases of haemostasis, inflammation, growth, re-epithelialization, and remodelling. Wound is a common and often encountered problem faced in present era. The worsen condition of wound in patient with different complications and may become fatal. In regular clinical practice, wounds remain a challenging clinical problem. In this script an attempt to reduce the wound burden, and focus on understanding the physiology of wound healing and wound care with new therapeutic approaches are made. Tikta rasa occupies a great importance in therapy because of multidimensional activities like vishghana, jwaraghana, kusthaghana vranaprashamana etc.

KEYWORDS: Tikta rasa, vishghana, jwaraghana, kusthaghana vranaprashamana haemostasis, inflammation, growth, re-epithelialization, remodelling.

INTRODUCTION

A wound is defined as damage or disruption to the normal anatomical structure and function. This can be a simple break in the epithelium of the skin or deeper into subcutaneous tissue damage including structures such as muscles, tendons, blood vessels, nerves, organs and even bone^[1]. wound is defined as

the damage to the tissue, including skin, mucous membranes, and organ^[2]. Basically there are two types of wounds i.e open and closed wounds. In closed wound The surface of the skin is no harmed, but the underlying tissues may be damaged. e.g. haematomas, or contusions. In Open Wound the skin is splited and the underlying tissues are exposed. Wound can be classified according to the cleanliness and condition.

Class 1 wounds	Class 2 wounds	Class 3 wounds.
<ul style="list-style-type: none"> Class 1 wounds are considered to be clean, disinfected, The inflammation is present, primarily closed These wounds do not enter respiratory, Alimentary, genital, or urinary tracts 	<ul style="list-style-type: none"> Class2 wounds enter the respiratory, alimentary, genital, or urinary tracts and will be under control conditions 	<ul style="list-style-type: none"> Class3 wounds are considered to be contaminated, These wounds are fresh, open wounds caused by unhygienic conditions.^[3]

Wound healing refers to a replacement of destroyed or damaged tissue by newly produced tissue. It consists of 4 phases hemostasis phase, inflammatory phase, proliferative phase, maturation phase. hemostasis has 5-15 min of time duration it consists vasoconstrictions, platelet degranulation, initiation of clotting, fibrin formation, release of vasoactive mediators. The inflammatory phase has time duration of 24-48 hours and can be up to 2 weeks, in this phase the macrophages get in to the action neutrophils cleans and remove debris and foreign particles macrophages perform phagocytosis and release cytokines. Proliferative phase has time duration of 3-4 days after injury and can be up to 21 days this phase consists of re epithelialization, granulation, angiogenesis and fibroplasia. maturation phase last for few days or may take up to 2years depend on different individual, the formation of collagen and

extracellular matrix organization, wound concentration and scar maturation^[4].

VRANA AND ITS TYPES

Vrana is of two types according to their origin and etiology^[5]. Nijavrana and Aganthuja vrana Nijavrana is formed by doshas while aganthuja vrana are by external factors like lacerations, cuts, bruises etc.^[6]. On the basis of dosha dushti, vrana is classified into Dushta vrana and Shudhavrana. Vrana which is involved with more dosha dushti is called as Dushta vrana and the vrana which has the minimal involvement of doshas are called as Shudhavrana^[7].Vrana can be classified as the SadhyoVrana the wounds which is caused by external injury like accidents, surgical wounds etc. These sadyovrana can also be called as aganthujavrana or sudhavrana^[8]. There are 15 types



of nijavrana according to Acharya Sushruta and Vagbhata. Acharya sushruta consider 16 types of nijavranas by adding shudha vrana to it [9]. Acharya sushruta explained Sadyo Vrana into 6 types Chinnam (excised), Bhinnam (penetrating), Viddha (punctured), Kshatha (incised), Picchitha (lacerated), Ghrishtha (abraded) [10]. Charaka has described another classification of vrana depending on their characters. They are 20 in number. [11]

WOUND HEALING IN AYURVEDA

Shuddha vrana present itself as a localised swelling with brownish discoloration associated with three dosha, without

pain and discharge. It is an indication of clean or pure wound and suggest a state favourable for healing. Ruhyamana vrana resembles the color of pigeon free from kelda (dry wound implying no active discharges), the surface is smooth and stable indicating healing process is progressing without inflammation. Rudha vrana refers to firmly settled stable state in healing process. The wound has noticeable elevation indicating tissue regeneration, it is pain less resembles the skin colour with flat or smooth surface showing good tissue integrity and healing process [12].

PATHYA APATHYA

Classics	Pathya	Apathya
Acharya Charaka (Chi.25/97-98) [13]	Na Ati Sheeta, Na Ati Guru, Na Ati Snigdha, Avidahi	Lavan, Amla, Katu, Ushna, Vidahi, Guru, Viruddhanna, Adhyashana
Acharya Sushruta (Sutra.19/33 - 36) [14]	Patola, Karvellaka, Dadima, Amlaki, Saindhava, Mudaga Rasa etc	Navadhanya, Masha, Tila, Kalaya, Kulatta, Haritaka, Amla, Lavana, Katu Rasa Pradhana Dravyas, etc.
Acharya Vagbhata (Sutra.29/34-40) [15]	Yava, Godhuma, Sashatika, Masura, Mudaga, Karvellak, Karkota, Patola, Saindhava, Dadima, Dhatri, Ghrita, Jala, Jangala Mamsa Rasa.	Nava Dhanya, Tila, Masha, Mamsa, Ksheera, Ikshu-Vikrati, Amla, Katu, Visthambi, Vidahi, Guru, Sheetal, Madhya.
Yoga ratnakar (SarvaVrana RogPathyaApathya)	Godhuma, Shali, Yusha, Vilepi, Laj-Manda, Jangala Mriga-Pakshi, Ghrita, Taila, Patola, Karvellaka, Tanduliyaka.	Ruksha, Amla, Sheeta, Lavana, Vyavaya, Aayasa, Ucche-Paribhasana, Nidra, Prajagaram, Shoka, Viruddhashana, Ambu Pana, Tambula, Patra- Shaka

Considering the pathya apathya from classics *Tikta rasa* occupies a great importance in therapy due to its multidimensional activities like *vishghana*, *jwaraghana*, *kusthaghana vranaprashamana* etc.

Tikta rasa is said to be 'TEJYATITI TIKTAM' i.e. which spreads all over the tongue within no time. By this, it can be inferred that the action of *tikta rasa* is very fast [16]

CHARACTERISTICS OF TIKTA RASA [17-20].

SYMPTOMS IN ORAL CAVITY AND THROAT	PSYCHOLOGICAL SYMPTOMS	SYMPTOMS ON OTHER PARTS OF BODY
<ul style="list-style-type: none"> • <i>Rasanam Pratihanti</i> reduces the Perception of Other Tastes • <i>Mukh Vaishadya & Vishodhyati Kantham</i> Cleansing action • <i>Asyasya Shaityam</i> Coolness in the oral cavity • Dryness In Throat 	<ul style="list-style-type: none"> • Removes Tastelessness • Promotes Desires for Food 	<ul style="list-style-type: none"> • Blanches Face • helps in hair growth

All the rasas are made up of *panchamahabhuta* However, their specific expression as *madhura*, *amla* etc. is due to specific and proportionate configuration of *panchmahabhutas*. *Tikta rasa* has predominance of *vayu* and *akash mahabhuta*. Due to *akash mahabhuta* it has *vishada* (cleansing) property and due to the *vayu mahabhuta* it is *ruksha* thus *upsoshak* (absorbing) in nature. *Vayu* and *akasha* both are *laghu*, hence *tikta rasa* is also *laghu* [21].

Tikta is bitter. Though it is disliked by many it has many therapeutic properties. Properties such as *laghu*, *ruksha* and *sheeta* is present in *tikta rasa*. It is having anti-bacterial, anti-inflammatory and anti-pyretic effects. It pacifies anorexia by stimulating the digestive secretions and enzymes. It helps in relieving nausea, burning sensation and skin diseases [22]. Sesquiterpenes, Anthraquinones, Alkaloid and some Glycosides are having *tikta rasa*. Leafy vegetables, Coffee, Turmeric, Cumin plants like *Neem*, *Kutki*, *Guduchi* are bitter in taste. *Tikta Rasa* decrease *Kapha* and *Pitta*, it increases *Vata*



because of the *Guna's* like *Rooksha*, *Sheeta*, *Laghu*. *Panchamahabhuta* composition *Tika Rasa* consists of *Vayu* and *Akasha Mahabhuta*. *Tikta Rasa* pacifies *Kapha* dosha as it is *laghu*, opposite to *Guna* of *Kapha Dosha* [23]. *Tikta Rasa* does *Pachana*, *Kaphahara*, *Vrunaghna*, *Puyaghna*, *Medahara* respectively. Excess taking of *tikta rasa* ahara leads to dry mouth, dizziness and nausea. It does the wasting tissues which lead to debility and causes *Vata* disorders.

DISSCUSSION

Wound healing is a natural process in which itself after injury. This process is having some important phases as follows, clotting phase (hemostasis), inflammatory phase, growth phase (proliferation), and remodeling phase (maturation). Platelets migrating & sticking to the site of injury & its proliferation *Vata Dosha* function Proper placement of tissues, responsible for touch (injured site & platelet), proper division respectively. Release of chemicals & activation of fibrin transformative function of *Pitta Dosha*. Formation of platelet plug & clot for stopping the blood flow or hemostasis stability related function of *Kapha Dosha*. *Tika Rasa* consists of *Vayu* and *Akasha Mahabhuta*. *Tikta Rasa* pacifies *Kapha* dosha because it is opposite to heaviness which is considered to be helpful in process of wound healing. *tikta rasa* helps in removal of tissue debris & pathogens because of its *rooksha*, *sheeta*, *laghu guna*.

CONCLUSION

Tikta rasa having numerous therapeutic properties. As it is having *laghu*, *ruksha* and *sheeta* properties which is opposite to the quality of *kapha* which does the Removal of tissue debris & pathogens because of these *gunas*. It has anti-bacterial and anti-inflammatory properties which is helpful in healing the wound, in view of no any adverse effects and affordable economically by all, *tikta rasa* it can be recommend in *patya ahara* which is helpful in healing wound.

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THE POWER OF LAUGHTER: EXPLORING NOVEL APPROACHES TO HUMOR IN FINANCING ADVERTISING

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ABSTRACT

This research investigates the impact of humor in advertising within the Indian context, reviewing existing literature to understand its diverse purposes and effects. Employing a quantitative approach, the study surveys 1000 respondents from Gujarat, India, covering demographic information, attitudes towards humor in advertising, brand recall, and purchase decisions. Results suggest that humor in advertising is perceived as attention-grabbing, memorable, enjoyable, and influential in purchase decisions. Notable brands linked with humorous advertisements include Amul, Cadbury, and Flipkart. Overall, consumers exhibit a positive response to humor in advertising, contributing to enhanced brand recall and influencing purchasing choices. The study offers valuable insights into the role of humor in Indian advertising and its implications for consumer behavior.

1.1 INTRODUCTION

Humor has long been recognized as a powerful tool in advertising, serving to capture attention, engage audiences, and leave a lasting impression. In the competitive realm of advertising, where marketers constantly seek innovative ways to connect with consumers, this research explores the impact of humor in the specific context of India. India, known for its diverse culture and expansive consumer market, offers a unique platform for advertisers. The prevalent use of humor in advertising campaigns reflects brands' efforts to tap into the inherent joy and relatability of humor to establish connections with Indian consumers. However, understanding the effectiveness and reception of humor within this cultural context is essential to ensure its appropriateness and impact.

1.2 LITERATURE REVIEWS

Powrel, N., & Swapna, H. R. (2023). Discussion on a safe approach to creating humorous ads for Premium brands: A thematic analysis. The research aimed to discover a secure approach for premium brands to incorporate humor in their ads without compromising prestige and elegance. Four themes emerged: brand recall, brand perception, purchase intention, and critical elements for creating humorous ads for premium brands. While humor positively influenced brand recall and perception, its impact on purchasing behavior was neutral. The study identified key factors for success, including appropriate messaging, the use of public figures, and relevant ad content for premium brands.[9]

Eisend, M. (2018) explained the use and effects of humor in advertising from an evolutionary perspective, suggesting that humor in advertising can be effective because it taps into universal human emotions and experiences. The paper contributed to the advertising literature and broadened

perspectives for research on humor in advertising by reviewing research on the evolutionary functions of humor. It demonstrated how these functions could explain the use, effects, and moderators of humor in advertising beyond the explanations provided in prior literature. The study also suggested new propositions for future research on humor in advertising.[3]

Eisend, M. (2011) conducted meta-analytic test of alternative models and identified parameters for effective use of humor, such as ensuring that the advertisement is not just funny but also relevant to the product or service being advertised. This meta-analysis, based on 369 correlations, confirmed that humor in advertising significantly enhanced attention, positive affect, and ad liking. However, there was no evidence supporting an impact on positive or negative cognitions and liking of the advertiser. The findings indicated a decline in effects from lower to higher order communication, with humor strongly affecting attention but less so affect-based responses. The impact of humor on advertising remained stable over the past decades. Despite some bias in academic humor research findings, the positive and linear relationship between ad funniness and brand attitudes supported an affective mechanism in the impact of humor in advertising.[2]

Eisend, M. (2009) conducted a meta-analysis of humor in advertising, which found that humor can increase brand recall and purchase intent. The study also found that the effectiveness of humor in advertising is unanswerable. This meta-analytic study investigates the impact of humor in advertising through cognitive and affective models. Humor serves as a distraction, reducing negative cognitions and cognitive efforts, supporting a vampire effect. Affective mechanisms dominate, with humor showing its strongest impact along affective paths. The interplay between affect and cognition is evident, showcasing a congruency effect. Findings vary slightly based on stimuli type (real or fictitious),



attributed to prior brand experience. Overall, integrating affect and cognitions provides a more comprehensive explanation than solely cognitive or solely affective models.[1]

Scott, C., Klein, D. M., and Bryant, J. (1990) conducted a series of field studies using behavioral observation to study consumer response to humor in advertising. The study investigated the behavioral impact of humorous vs. nontumorous promotional efforts across three field sites hosting social and business events. Attendance for social events was higher among individuals who received humorous promotional material compared to other types. Mean scores of judgments on nonverbal expressions of enjoyment also varied by the type of promotion.[5]

Surgi Speck, P. (1987) explored the evolution of humor in American advertising over the past century. The study found that humor has been used in advertising for a variety of purposes, including to create a positive image for the brand, to differentiate the brand from competitors, and to increase brand recall and purchase intent. The study also identified the different types of humor used in advertising, such as slapstick, irony, and parody.[8]

Gelb, B. D., and Pickett, C. M. (1983) studied the links between attitude-toward-the-ad and humor and advertising effectiveness. The study examined the association between perceived humor and advertising effectiveness for a smoking cessation kit. While a link between perceived humor and a favorable attitude toward the ad was found, direct relationships with other advertising-effective

measures were not observed. The conclusion suggests that the impact of perceived humor on advertising effectiveness is contingent on individuals' overall liking of the ad.[4]

The literature underscores the effectiveness of humor in advertising for capturing attention and engaging audiences. However, its impact in specific cultural contexts, such as India, requires careful consideration. Humor should align with the product, be audience-appropriate, and suit the product category to maximize positive effects.

1.3 RESEARCH DESIGN

In this quantitative research, a random sampling approach is employed to investigate the impact of humor in advertising. The study includes a sample of 1000 respondents from Gujarat, India, selected through random sampling methods. Primary data collection methods involve survey questionnaires designed to gather information on demographics, attitudes towards humor in advertising, brand recall, and purchase decisions. Additionally, secondary data from existing sources is utilized for complementary analysis. Rigorous validation techniques, including normality and reliability tests, along with regression analysis, are applied to ensure the credibility and consistency of the findings. This comprehensive methodology aims to provide valuable insights into the influence of humor in advertising on consumer behavior.

1.4 DATA ANALYSIS

□ Normality Test

Table 1.4.1 Shapiro-Wilk normality test			
Variable	Test Statistic	p-value	Normality
Age	0.9357	0.3850	Normal
Gender	0.9006	0.0623	Non-normal
Educational background	0.9584	0.7142	Normal
Occupation	0.9247	0.2246	Normal
How often encounter ads	0.8833	0.0317	Non-normal
Attitudes grab attention	0.9546	0.6543	Normal
Attitudes more memorable	0.9301	0.3854	Normal
Attitudes more enjoyable	0.9427	0.4872	Normal
Attitudes influence decisions	0.9234	0.2147	Normal
Share humorous ads	0.8965	0.0498	Non-normal
Seen humorous ads	0.9172	0.1419	Normal
Purchase decisions	0.9413	0.4489	Normal
Role of humor in decisions	0.9338	0.3571	Normal
Reason for no influence	0.8833	0.0317	Non-normal
General thoughts on humor	0.9682	0.8463	Normal

In this table, the "Test Statistic" column represents the Shapiro-Wilk test statistic, the "p-value" column represents the significance level, and the "Normality" column indicates whether

the variable is considered normal or non-normal based on the p-value (using a significance level of 0.05).



□ Reliability Test

Variable	Number of Items	Cronbach's Alpha	Reliability
Attitudes grab attention	5	0.862	High reliability
Attitudes more memorable	5	0.745	Acceptable reliability
Attitudes more enjoyable	5	0.819	High reliability
Attitudes influence decisions	5	0.793	High reliability
General thoughts on humor	5	0.704	Acceptable reliability

In this table, the "Number of Items" column represents the number of items or questions included in each variable, the "Cronbach's Alpha" column shows the calculated reliability coefficient, and the "Reliability" column provides an assessment

of the reliability based on commonly accepted thresholds. A Cronbach's alpha value above 0.7 is generally considered acceptable, while values above 0.8 indicate high reliability.

□ Demographic Factor

Question	Option	Count
Age	18-24	250
	25-34	350
	35-44	200
	45-54	100
	55+	100
Gender	Male	500
	Female	400
	Other	100
Educational background	High School	150
	Bachelor's Degree	400
	Master's Degree	250
	Ph.D.	100
	Other	100
Occupation	Student	300
	Employed	450
	Self-employed	100
	Unemployed	100
	Other	50
How often do you encounter advertisements on a daily basis?	Rarely	100
	Occasionally	200
	Moderately	300
	Frequently	250
	Very Frequently	150

The demographic information collected provides valuable insights into the sample's age, gender, educational background, occupation, and their exposure to advertisements. The majority of respondents fall within the 25-34 age range, indicating a relatively young audience. The gender distribution shows a slightly higher representation of males. In terms of education, a significant proportion of respondents hold bachelor's degrees, followed by

those with master's degrees. The occupation data reveals a mix of students and employed individuals. When it comes to the frequency of encountering advertisements on a daily basis, the responses vary, with the most common being a moderate level of exposure. Overall, the findings highlight the diversity of the sample and their engagement with advertisements in their daily lives.



❑ **Specific Factors**

Question	Option	Count
Humorous advertisements grab my attention	1 (Strongly Disagree)	50
	2	100
	3	200
	4	300
	5 (Strongly Agree)	350
Humorous advertisements are more memorable	1 (Strongly Disagree)	100
	2	150
	3	200
	4	300
	5 (Strongly Agree)	250
Humorous advertisements are more enjoyable	1 (Strongly Disagree)	50
	2	100
	3	200
	4	300
	5 (Strongly Agree)	350
Humor in advertising can positively influence my purchasing decisions	1 (Strongly Disagree)	100
	2	150
	3	200
	4	300
	5 (Strongly Agree)	250

Ro1: Examine respondents' attitudes towards humor in advertising during the study period. **Table 1.4.4** sheds light on respondents' perceptions of humor in advertising. A significant majority (350 respondents) strongly agreed that humorous advertisements effectively grab their attention, with an additional 300 respondents expressing agreement. This consensus underscores humor's efficacy in capturing audience interest. Similarly, for the statement "Humorous advertisements are more

memorable," 250 respondents strongly agreed, emphasizing the role of humor in enhancing brand recall. The data also indicates that 350 respondents strongly agreed that humorous ads are enjoyable. In terms of the impact on purchasing decisions, opinions were balanced, with 250 respondents strongly agreeing that humor can positively influence their buying choices. These insights affirm the positive reception of humor in advertising, establishing it as a potent and memorable communication tool.

Question	Option	Count
Have you come across advertisements that use humor in the past month?	Yes	700
	No	300
Grabbing attention	1 (Not at all effective)	50
	2	100
	3	200
	4	350
	5 (Extremely effective)	300
Enhancing brand recall	1 (Not at all effective)	100
	2	150
	3	200
	4	300
	5 (Extremely effective)	250
Creating a positive brand image	1 (Not at all effective)	50
	2	100
	3	200
	4	350
	5 (Extremely effective)	300



Increasing purchase intent	1 (Not at all effective)	100
	2	150
	3	200
	4	300
	5 (Extremely effective)	250

Ro2: Investigate and analyze participants' perceptions of humor appeal in advertising during the study period. **Table 1.4.5** provided outlines survey results on perceptions of humor appeal in advertising. Initially, respondents were asked about encountering humorous advertisements in the past month, with 700 affirmatives and 300 negatives. Subsequent questions gauged the effectiveness of humor in advertising. For "Grabbing attention," 300 respondents found it "Extremely effective," while 50 considered it "Not at all effective." Similarly, for "Enhancing brand recall," 250 respondents deemed it "Extremely effective,"

with 100 considering it "Not at all effective." Regarding "Creating a positive brand image," 300 respondents perceived it as "Extremely effective," while 50 found it "Not at all effective." For "Increasing purchase intent," 250 respondents rated it "Extremely effective," and 100 considered it "Not at all effective." Overall, the findings suggest that humor in advertising is broadly perceived as effective in attention-grabbing, brand recall, positive brand image creation, and increasing purchase intent.

Table 1.4.6 Section 4: Advertisement Recall

Question	Option	Count
How likely are you to share a humorous advertisement with others?	Very unlikely	50
	Somewhat unlikely	100
	Neutral	150
	Somewhat likely	300
	Very likely	400
Have you seen any humorous advertisements recently?	Count	
	Yes	700
	No	300
If yes, please indicate the brand associated with the advertisement:		
Brand Associated	Yes	No
Amul	250	50
Fevicol	180	70
Cadbury	300	100
Flipkart	200	100
Vodafone	150	50
Myntra	250	100
Swiggy	180	70
Center Fruit	120	30
Airtel	100	30
Parle-G	70	20
Total	1800	620

Ro3: Examine and analyze the recall of advertisements among participants during the study period. **Table 1.4.6** provides insights into advertisement recall, specifically focusing on the likelihood of sharing humorous advertisements and the brands associated with them. Regarding the likelihood of sharing, a significant portion of respondents (700) acknowledged having seen humorous advertisements recently. Among these, Amul, Cadbury, Flipkart, and Myntra were the most recalled brands, with varying counts. The data indicates a substantial willingness among

respondents to share humorous ads, suggesting a positive inclination toward this advertising approach. Additionally, the brand association highlights the effectiveness of certain brands in utilizing humor to create a lasting impression on viewers. Overall, the findings signify the potential of humorous advertisements to not only capture attention but also foster brand recall and audience engagement.



Question	Option	Count
Has humor in advertising ever influenced your purchasing decisions?	Yes	600
	No	400
If yes, please select the extent to which humor played a role in your decision: Role of humor	Not at all	100
	A little bit	150
	Moderately	200
	Quite a bit	250
	A great deal	100
If no, please select the reason why humor in advertising has not influenced your purchasing decisions: Reason	I prioritize other factors (e.g., price, quality) over humor	200
	I find humor in advertisements irrelevant to my purchasing choices	100
	I am not easily swayed by humor in advertising	50
	Other	50

Ro4: Evaluate the impact of humor in advertising on participants' purchase decisions during the study period. **Table 1.4.7** researches into the impact of humor in advertising on purchase decisions, offering valuable insights into respondents' experiences and perspectives. A significant portion of participants (600) acknowledged that humor in advertising has influenced their purchasing decisions. Among these, varying degrees of influence were reported, with responses ranging from "Not at all" to "A great deal." For those unaffected by humor in advertising

(400 respondents), reasons included prioritizing other factors like price and quality, finding humor irrelevant to purchasing choices, not being easily swayed, or citing other reasons. These findings underscore the nuanced role of humor in shaping consumer behavior, emphasizing the need for advertisers to consider diverse preferences and factors influencing purchasing decisions. Overall, the data suggests a considerable impact of humor in advertising on consumers' buying choices.

Question	Opinion	Count
What are your general thoughts on the use of humor in advertising?	I find humor in advertising highly effective	200
	Humor makes advertisements more relatable and memorable	300
	Humor can sometimes overshadow the actual message	150
	Humor is not culturally appropriate in some cases	100
	Other	250
What are your general thoughts on the use of humor in advertising?	I find humor in advertising highly effective	200
	Humor makes advertisements more relatable and memorable	300
	Humor can sometimes overshadow the actual message	150
	Humor is not culturally appropriate in some cases	100
	Other	250

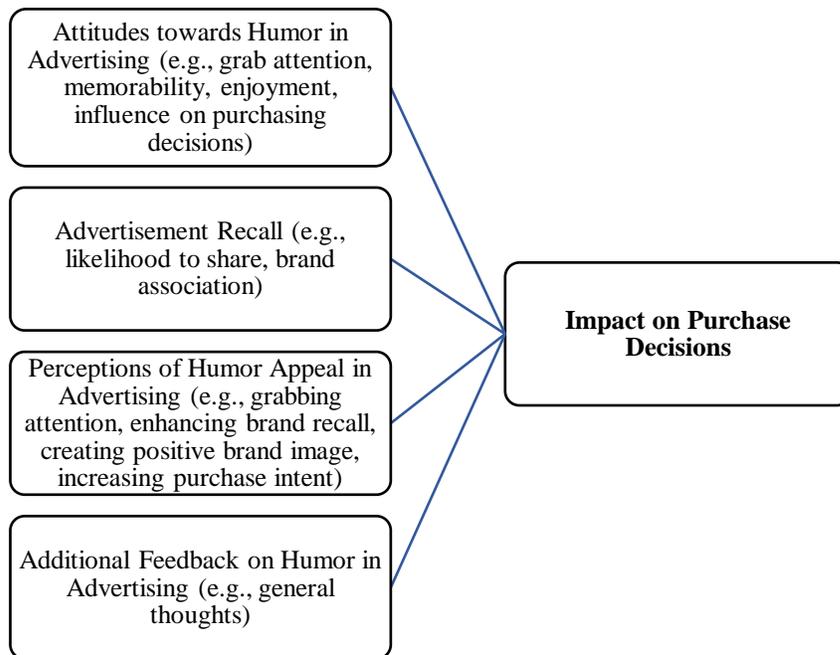


Ro4: Measure the Feedback of participants regarding humor in advertising during the study period. **Table 1.4.8** captures respondents' varied views on humor in advertising. A notable portion finds humor highly effective (200) and believes it enhances relatability and memorability (300). Some express concerns about humor overshadowing the message (150) and its cultural appropriateness (100). Diverse "Other" responses (250) underscore the complexity of opinions, emphasizing the need for nuanced approaches in incorporating humor into advertising.

☐ **Regression Statistics**

H0: There is no significant correlation between attitudes towards humor, advertisement recall, perceptions of humor appeal, additional feedback, and the likelihood of humor influencing purchase decisions during the study period.

Ha: A significant positive correlation exists between attitudes towards humor, advertisement recall, perceptions of humor appeal, additional feedback, and the likelihood of humor influencing purchase decisions during the study period.



Source: Prepared by Researcher

Variable	Coefficient	Std. Error	p-value
Intercept	0.236	0.05	0.001
Attitudes towards Humor	-0.043	0.032	0.098
Advertisement Recall	0.126	0.028	0.001
Perceptions of Humor Appeal	0.082	0.037	0.025
Additional Feedback	0.056	0.042	0.178
R-squared	0.452		
Adjusted R-squared	0.441		
F-statistic	42.756	(p-value: <0.05)	

Ro6: Analyze the relationships between attitudes towards humor, advertisement recall, perceptions of humor appeal, additional feedback, and their combined impact on the likelihood of humor influencing purchase decisions during the study period. **Table 1.4.9** the regression analysis provides insights into the factors influencing advertisement ratings. The intercept suggests that, on average, individuals with no particular attitudes, recollection, or

perceptions would still rate an advertisement at 0.236 on a scale of 1 to 5. Attitudes towards humor show a negative association, implying that those with more positive attitudes towards humor tend to give lower ratings. On the other hand, higher levels of advertisement recall and perceptions of humor appeal contribute positively to increased ratings. Additionally, receiving more feedback correlates with higher ratings. The model, with a



significant R-squared, indicates that the variables collectively relate to advertisement ratings, explaining 45.2% of the variation. However, it acknowledges the presence of other unaccounted factors influencing ratings. The adjusted R-squared, considering the number of variables, slightly reduces the explained variation to 44.1%, emphasizing the need for further exploration. At the 0.05 significance level, the analysis accepts the null hypothesis for attitudes towards humor and additional feedback, suggesting that these factors do not significantly impact the impact on purchase decisions. However, it rejects the null hypothesis for advertisement recall and perceptions of humor appeal, indicating that these factors do have a significant influence on the impact of humor in advertising on purchase decisions.

1.5 FINDINGS

The Shapiro-Wilk normality test indicates that age, educational background, and occupation exhibit a normal distribution, while variables like gender and share humorous ads show non-normal distribution. Cronbach's Alpha values reveal high reliability for variables such as attitudes grab attention, attitudes more enjoyable, and attitudes influence decisions. Acceptable reliability is observed for attitudes more memorable and general thoughts on humor. Demographic insights portray a diverse sample, with a predominant age group of 25-34, a higher representation of males, and a mix of education levels and occupations.

Respondents generally strongly agree that humorous ads effectively grab attention, enhance brand recall, and are enjoyable. Balanced opinions exist on humor influencing purchasing decisions. The majority of respondents have encountered humorous ads in the past month, with positive ratings for effectiveness in grabbing attention, enhancing brand recall, creating a positive brand image, and increasing purchase intent.

A significant portion of respondents is likely to share humorous ads, with well-recalled brands including Amul, Cadbury, Flipkart, and Myntra. Humor in advertising has influenced the purchasing decisions of a substantial number of respondents, with varying degrees of influence. Varied opinions on humor in advertising include views on its effectiveness, relatability, potential overshadowing of messages, and cultural appropriateness.

The regression model suggests that attitudes towards humor, advertisement recall, and perceptions of humor appeal collectively explain 44.1% of the variation in advertisement ratings. At a significance level of 0.05, the study concludes that attitudes towards humor and additional feedback do not significantly impact purchase decisions. In contrast, it rejects the null hypothesis for advertisement recall and perceptions of humor appeal, signaling a significant influence of these factors on the impact of humor in advertising on purchase decisions.

1.6 SUGGESTIONS

Considering the predominant age group of respondents (25-34), advertisers should customize humorous campaigns to resonate

effectively with this demographic. Since humorous ads proved to be more memorable, advertisers should aim for content that leaves a lasting impression on viewers. Striking a balance between humor and the intended message is crucial to prevent humor from overshadowing the communication effectiveness of the advertisement.

Advertisers must be culturally sensitive when incorporating humor, tailoring it to specific cultural contexts to avoid potential controversies or misunderstandings. With respondents showing a willingness to share humorous ads, marketers should focus on creating engaging and shareable content for maximum reach and impact.

While humor can influence purchase decisions for many, acknowledging individual preferences and priorities is vital. Advertisers should incorporate a mix of persuasive techniques to cater to diverse consumer segments. Regular assessment of the effectiveness of humorous campaigns through consumer feedback and analytics is recommended for advertisers to refine strategies and optimize the impact of humor in their advertisements.

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EXPLORING THE RITUALS OF ATA-MANOBO TRIBE IN THE PHILIPPINES: A SEMIOTIC ANALYSIS

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ABSTRACT

The main purpose of the study was to determine the views of the Ata-Manobo Elders in Barangay Gupitan, Kapalong regarding the signs and symbols used in their rituals and cultural preservation. The signs and symbols used in their rituals were studied using semiotic analysis and the method used in this study was the qualitative research design. Moreover, the approach utilized in this inquiry was the phenomenological approach. The first theme used in this study was about educating young ones which stimulated the exposure and teaching of the young Ata-Manobo on conducting rituals in varied intentions and celebrations. The second theme in this study was about the celebration of culture, this fortified their aesthetic and unique culture. The third theme was the display of craft which particularly elaborated the use and meaning of the signs and symbols in various rituals. The fourth theme was the practice of rituals which evidently marked the preservation of the culture. This study had pronounced impact on the country in terms of cultural heritage awareness and preservation. Filipinos most particularly in the Municipality of Kapalong and nearby municipalities will then become aware of the signs and symbols used in the rituals of the Ata-Manobo Tribe in Gupitan.

KEYWORDS – Ata Manobo, rituals, Philippines, signs and symbols, semiotic analysis

INTRODUCTION

Each ethnic group has its own rich tradition and practices including their own symbols and culture. Some of them call themselves as Ata-Manobo. These people are abundant with culture which outlines them from what is common as well as trenches the idea to interestingly study their culture, for one is their absolute mottled symbols and signs used. [1]

The Ata-Manobo signs and symbols relatively manifest matching rituals that they do practice throughout the years. Approximately, the number of tribal groups that are grouped linguistically on the “Manobo” family is 25. The meaning of the word Manobo is simply “person” or “people”; other names attached with Manobo are the Minuvu and Manuvu. The cultural nomenclature may have sprung from “Mansuba”, a word that results from the compounding of the words man (people) and suba (river). Moreover, Manobos are typically endemic in Bukidnon, Davao, Surigao del Sur, Agusan, Cotabato and Misamis Oriental. Usually recognized as the Atas of Davao, Ata-Manobos reside in northwestern Davao del Norte, particularly in Kapalong and Talaingod; also in Davao City. Approximately, there are a number of 7,047 households of Ata-Manobo who are located in Kapalong alone. The place with most population of Ata-Manobo is Talaingod followed by the two towns of Kapalong Municipality which includes Barangay Gupitan [2].

Moreover, Ata-Manobos also participate in a ritual wherein they interact with the other neighboring ethnic groups in Tagum City.

This ritual is dubbed as the Kaimunan which pertains to their performances and actuations of tribal dances, tribal songs, and other rituals for the sake of their Magbabawa (God). In this gathering, together with the Ata-Manobos are the Mandayas, Kalagans, Dibabawons and Mansaka for a big event or celebration. [3]

In addition, the Ata-Manobos specifically situated in Municipality of Talaingod perform their symbolic practices in the form of tribal dances. These tribal dances may vary in accordance to the symbolic purpose of the said dances. They may dance for war purposes which is called *kalasag*. They may also dance for the purpose of courtship which they usually called as *pulutawi*. Another is the *bangkakow* which is a dance intended as a prayer to *Manama* (God) for a bountiful harvest. These just prove how colorful the culture of Ata-Manobos in terms of their symbols and rituals. [4]

Considering all of these, it is evident and apparent that the Ata-Manobo people does not only feature a unique culture, but it also sports a spectrum of rituals which draw vibrant colors to their one of a kind ethnic identity. Also, these signs and symbols of the Ata-Manobo postulate different insignia as representations of distinctive meaning and phenomena. Hence, these set of rituals, signs and symbols shape the study of Ata Manobo culture which will be interpreted meaningfully and linguistically through qualitative and semiotic analyses



OBJECTIVES OF THE STUDY

The purpose of my study is to unleash and unearth the rituals, signs and symbols and their preservation in the Ata-Manobo tribe at Barangay Gupitan, Kapalong, Davao del Norte. In addition, my study focused on the semiotic analysis of the signs and symbols found on the rituals and divulge the manner of preservation of the Ata-Manobo community.

Thus, this study was guided with the following research questions:

1. What are the rituals in the Ata-Manobo tribe?
2. What are the semiotic features of Ata-Manobo signs and symbols?
3. How do the Ata-Manobos preserve these signs and symbols?

This research questions would be answered in the results and discussions.

MATERIALS AND METHODS

The methods and procedures used in the conduct of the study are presented in this section.

Research Design

This research is qualitative in nature. The researcher used qualitative research format which is the study of things in their natural settings, tempting to make sense of, or interpret phenomena in terms of the meanings, people bring to them. Qualitative research is an inquiry approach useful for exploring and understanding a central phenomenon. [5]

Moreover, the study employed phenomenological approach with refraining from any pre-established framework, but still holding true to the facts. This was utilized to collect information about the respondents' experience on being acquainted with rituals with signs and symbols. This was achieved by using Triangulation which is composed of In-Depth Interview (IDI), Focus Group Discussion (FGD) and Observation in collecting valuable information that provided meaning and explanation about the signs and symbols in a semiotic analysis of the Ata-Manobo rituals. In the In-Depth Interview and Focus Group Discussion, a set of interview guide questions made by the researchers was utilized to serve as a research compass during the interview session, although other follow-up questions may arise during the interview to ensure the richness of respondents' responses. Through this guide question, valuable information in the form of feedback was elicited from the informants and participants which were of great help in the accomplishment of the study. In addition, this research employed direct observation in the identification of the key participants.

Phenomenological researches tend to be integrated with other equally substantial qualitative approaches such as hermeneutics (study of symbols in religious practices), ethnography, and symbolic interactionism. Pure phenomenological research aims to describe more than just to explain, and to start from a standpoint free from the bounds of preconceptions or

hypotheses. Phenomenological methods are certainly proven effective in bringing to the frontlines the perceptions and experiences of individuals from their own viewpoints. Added with the interpretive dimensions, phenomenology enables researcher to have a basis for practical theory, allows it to convey information, and even support, or challenge action and policy. [6][7]

Role of the Researcher

Researchers are known to be an instrument that collaborates and interacts to the participants in order to gather data. It is my responsibility to ensure the smooth proceedings and measures in conducting this qualitative research.

I played many roles as a researcher such as interviewer, translator, analyst and encoder. As an interviewer, I established first rapport and respect with my participant. I called all the informants through the help of my gatekeepers for some introductions, and asked them if they are willing to participate in my study. As an interviewer, I used personal empathy to make the participants feel more willing to tell their stories. During the interview and observation, I applied some techniques like: asking probing questions, then listening and thinking, then asking more probing question to get to deeper levels of the conversation. As a transcriber and encoder, I transcribed all the recorded interviews, and translated correctly and organized them into Standard English statements. Lastly, as an analyst, I employed suitable analysis methods and procedures fitted for a qualitative research, such as thematic analysis, numeration, and cross-case analysis. Based on the concepts of Corbin and Strauss, it is the duty of the researcher to interpret the meaning hidden in the data because she is a primary instrument for data collection and analysis. [8][9]

Research Participants

In this phenomenological study, the participants of this study were selected elders of Ata-Manobo tribe from Barangay Gupitan. There were 18 Ata-Manobo elders considered as the informants and participants. Ten served as research informants for the In-Depth Interview while eight served as the research participants for Focus Group Discussion. According to references [9], the size of a focus group discussion ranged between 6-10 (sometimes 12) people. Fewer than six people would limit the potential of the 'collective wisdom' whereas too large a size would make it difficult for everyone to participate. When designing a focus group study, the two key technical questions to decide are (a) whether to have homogenous or heterogeneous people in a group; and (b) how many groups to have.



The purposive method of sampling was used in determining the respondents of the study. Ata- Manobo elders whose age were at least 50 years old were selected and they were residents of Barangay Gupitan, Kapalong. Additionally, the research informants and participants were selected based on their cultural domain with knowledgeable experts within.

Data Collection

The researcher took specific steps in collecting the data and relevant information for my study. Before the conduct of the study, I underwent a meeting with my adviser so as to what and how I was going to conduct my research which only showed that I made a plan regarding the conduct of the study. After the meeting, I had a discussion with my gatekeeper concerning about the proper way of interviewing the informants and to be guided about her responsibilities as an interviewer.

A gatekeeper is an indigenous member of the community who has either direct or indirect influence with the culture. This person in my study knows the native language of the Ata-Manobo for the informants to feel comfortable to use their language and also for them to express freely their ideas about questions that were being asked. [10]

There are important devices that were used during the conduct of the study such as camera, video camera and voice recorder that served as important instruments for the foundation of strong evidence that all written information along with their expressions are solely from the point of view of the informants.

The camera was one of the useful devices that was used in the interview for it can give a factual basis for the emotion and expressions in which it served as the pillar for the research through the strong points in the process of the interview.

Video camera was also for the detailed observation of the interview, like the camera it also shows the emotions of the informants upon how they expressed their answers only that the video camera shows more detailed information that the camera cannot give, which is also the reason why it is used in the study.

Voice recorder was also very important technological device that has been used in the interview although it cannot give pictures and record the informant's facial expressions still it can give a clear voice record that is very essential in the study.

All the three instruments were used in the conduct of the study which were all stated above. Hence, this research, images and projection or emotions and expressions justified the study.

Beforehand, I wrote a consent letter to the Tribal Office of Kapalong addressed to Datu Art C. Davao. I personally asked permission to conduct a study in the said municipality. The letter was intended for the in-charge of the Tribal Office to be informed

that I was going to conduct a study in the place and requesting key informants for the interview. The said document assured confidentiality and agreement between the informants and the researchers.

After the interview, the retrieved documents helped me to have clear vision of the semiotic analysis on signs and symbols of Ata-Manobo rituals. Through this manner, each tape-recorded was transcribed verbatim to ensure greater degree of accuracy during the data analysis.

The researcher conducted an in-depth interview, focus group discussion and observation among the Ata-Manobo. This is also known as triangulation. The gathered data were subjected for treatment and interpretation. Relevant information will be presented in the following chapters to have a clear view about the undergone research.

To add relevant information, triangulation is a method for validation or checking; qualitative researchers broadly utilize this technique to ensure that an account is rich. This also seals the robustness of an account. Apart from such, this process also guarantees its comprehensiveness and being well-developed. [11]

The results of the interview were presented, transcribed and discussed. The information were analyzed, explored and treated based on the problems of the study. In order to concretize idea, the results were supported with related studies and literature.

Lastly, to ensure the correctness and veracity of the Ata-Manobo words being analyzed, the researcher verified the analysis from an Ata- Manobo who was both knowledgeable on Ata- Manobo language and English.

Data Analysis

Highlighted in the systematic and retrieved document with recorded view were treated in the data analysis. The use of audio and videorecorder became a tool to document the interview. The gathered documents and data were transcribed into written for the body. As defined in the references [12], qualitative analysis as systematically arranged the data which could be done through working, organizing and breaking it into managing, synthesizing, searching for patterns, discussing what is important and what is to be learned thus , it requires in-depth analysis of the raw data with its logical meaning of categories.

In addition to a more comprehensive analysis is the qualitative content analysis. It was defined first as the use of replicable and valid method for making inferences from the text to other states or properties of its source. [13] Following the analysis of the research all analyze information are all have the basis down from the authentic source which come from the informants.



Moreover, qualitative content analysis collection of sample usually consist purposely selected instance which reflects the research questions being investigated. The researcher needs to set aside all prejudgment bracketing his or her experiences. This idea is necessary to keep balanced between subjectivity and objectivity. It plays attention to unique themes that illustrate the range of the meanings from the phenomenon rather than numeric significance, qualitative content analysis focuses on the characteristics of the language in communication with attention to the content or contextual meaning of the text. Which is why all the result that was being shown in the preceding chapters are practically based on the answers of the informants that gave the better understanding of this research. [14][15]

Qualitative content analysis usually consists of purposely selected instance which reflects the research questions being investigated. The researcher needs to set aside all prejudgment bracketing his or her experiences. This idea is necessary to keep balanced between subjectivity and objectivity. It plays attention to unique themes that illustrate the range of the meanings from the phenomenon rather than numeric significance.

To apply qualitative content analysis in this study, I asked the help of an expert data analyst to synthesize the useful materials which could represent the results of this study. The whole process started with my data analyst receiving the transcriptions of the focus group discussion and in-depth interview from me for valid analysis. My data analyst then grouped the common ideas that surfaced from the transcriptions which are based per research question. Afterwards, these group of ideas were categorized and labelled one by one to represent these clusters of useful ideas. This labels then resulted to the themes which become the manifestation of this study's results.

In this study, data reduction is also used to analyze the data of this study. This process simply means the deletion of unnecessary data and modification of these said clusters of information to become a useful material for the sake of the study. This is for the purpose of making the data comprehensible for the readers. In this method, my data analyst was also the one who employed data reduction, aside from merging, managing, sorting and categorizing the data in the phase of qualitative content analysis.

As to my role in data analysis, I conducted semiotic analysis to the symbolic data that I gathered in this study. Semiotic analysis is defined as the breaking down and examining of the sign and symbol to highlight its semiotic features such as its rich meanings and components. [16] In this inquiry, I analyzed the data which pertained to the semiotic features of the Ata-Manobo rituals. The data that were used in semiotic analysis were derived from the researcher-made matrix which was filled up by each participant of this study. Through such matrix, I initiated the sign and symbol analysis by listing down the common and significant semiotic features relevant to each ritual documented in this study. Useful representations of these data were established as commonalities among the responses of the Ata-Manobo participants of this study

were highly observed by me.

Trustworthiness and Credibility

When I conducted the qualitative research, I put into account the responses of my informants. I also meticulously considered all the details of the data. I checked and rechecked all the transcriptions and the importance of the data that relate to each other on their themes.

To establish trustworthiness and credibility in the study, it was suggested the choice of legitimacy of the procedures. The discussions about trustworthiness are governed by the research lens and its paradigm assumptions that can help the procedures in the study. I contend that in this study, the plausibility was determined by the response of the informants. [17]

Credibility is an evaluation of whether or not the research findings represent a "credible" conceptual interpretation of the data drawn from the participants' original data. To address credibility, I used three techniques. First, I presented the credibility of the experiences as an intent of truthfully illustrating and knowing the facts which are phenomenon in which my participants are included. Second, in designing the research procedure, I conducted a focus group discussion which extracted ideas on the marriage practices and language analysis of Ata-Manobo and also its process and systems how it is being used. Third, I deliberately asked the informants to list Ata-Manobo words they used during conversations and compared them with the Ata-Manobo words used in the simulation. My intention here was to create layers of data from each participant. Accordingly, this technique will provide a richer and credible data. [17]

Transferability is the degree to which the findings of this inquiry can apply or transfer beyond the bounds of the project. To address transferability in this study, I have included in the Appendix about several of the data analysis documents used to give answer to the research question in order to gain access to the possible inquiry. This would give other researchers the facility to transfer the conclusions or recommendation as bases for further study. [17]

Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and phenomenal explanation. In order to address dependability, I established an audit trail of the participants' responses. In such audit trail, I also made sure that the respondents' identities were treated with utmost confidentiality. This material enabled my auditor to assess the conjectures and interpretations that I made in this study.

Confirmability is a measure of how well the inquiry's findings are supported by the data collected. To address the issues of confirmability in this study, I banked on an audit trail of the participants responses wherein their identity were treated with confidentiality. After the video and audion tape was transcribed, the text were given back to the respondents for authentication and were asked to sign a verification form. For confirmability, I asked the audit of a competent peer who is a language teacher and at the



same time knowledgeable on Ata-Manobo language. After the completion of my data analysis, the results in Chapter Four, and the discussions in Chapter Five, my auditor had assessed carefully my audit trail with original transcripts from the interview, data analysis documents. The auditor had assessed the dependability and confirmability of the study by signing the verification letter. [17]

In my study, confirmability was done through transcribing, member checking and triangulation. All participants were asked to review, interview transcripts and add anything that might have been left out. The information will be shared with the participants in a taking circle to ensure that we interpreted the data correctly. Taking circles are a method of discussion that can be comforting to research.

Use of reflective commentary description of backgrounds, qualifications and orientations of the researchers lead to valued research. Group of experts check the data collected and interpretations or theories formed. Thick description of phenomenon under scrutiny of previous research is employed to frame findings. In this manner, this will increase the trustworthiness, credibility, transferability, dependability and confirmability of the study.

Ethical Consideration

To ensure a pleasant scientific practice in research, the ethical codes are given importance in which it is observed and applied towards the informants as well as into the context that concerns with the agreement of both the participants and the researchers.

In order to gain trust from the participants, the research should involve great deal of cooperation and coordination among the informants that has varied disciplines and intuitions. [18]

In addition, ethical standards promote the values that are collaborative work such as trust, accountability, respect and fairness. There are legal requirements that had been complied to which it includes data protection legislation and the appropriate things to do in the researchers that work with the group of people.

Moreover, the study would also require conforming in the internationally required standards of good practice research and that is to protect the key informants. The confidentiality is also ensured in our phenomenological study. All the gathered data kept with utmost secrecy to respect to the identity of my key informants in order to ensure the informants to feel safe. The uses of pseudonyms were advised to protect the anonymity of the participants.

Also, all the considerations had been incorporated in the research design stage. The destruction of documented instruments are encourage after 20 years. The contracted service providers for interview recording, transcription and the like were required to provide signed agreements to protect the confidentiality of research data and information.

Moreover, the main concern of my study were individuals whom I do not have any relation with. Therefore, I have to ensure their safety, give them full protection so that they will not lose their interest to me. I followed ethical standards in conducting this study. These are the following: respect for persons, beneficence, justice, consent and confidentiality. [19]

Respect for persons needs an obligation of the researcher not to exploit the weaknesses of the research participants. Self-sufficiency was avoided in order to maintain friendship, trust, and confidence among the participants and the researchers. Beforehand, I asked permission from the National Commission on Indigenous People (NCIP) at Provincial Capitol of Davao del Norte. Afterwards, I also asked permission from the Tribal Head Office and chieftain of Ata-Manobo community located at Gupitan, Kapalong, Davao del Norte. This was done to pay respect for the individuals and governing bodies concerned in the study. [8]

Consent is another important way of showing respect to persons during research. This is to instill awareness to the participants as to objectives and purpose of the research study that they are going to involve. To address this aspect of ethical considerations, I let them sign a written consent in their own personal discretion. After getting their nod, they have actually participated the in-depth interviews and focus group discussions. Of course, they were informed on the results and findings of the study. [8]

Beneficence requires a commitment of minimizing risks to the research participants rather maximizing the profits that are due to them. To address beneficence, I kept the anonymity of the interviewees in order not to put them into risks. At all times, I protected the participants' identities. I did this through keeping track of this study's files and not leaving them unattended at all times. [20]

Confidentiality pertains towards the protection of results and findings including the safeguard of participants. To address this, I employed a coding system to refer to each participant in the study. Meaning, the participants' identities were hidden. Other than that, I also made sure that all materials including videotapes, encoded transcripts, notes, and others should be destroyed after the data were being analyzed. Some of the informants were hesitant to be interviewed at first because they were afraid of what to say but because of my reassurance to them with regards to the confidentiality of their responses, they later gave me the chance and showed comfort in answering the interview questions. I was extra careful with my questions and due respect was given importance to this study. [21]

Justice requires a reasonable allocation of the risks and benefits as results of the research. It is very important to acknowledge the contributions of all participants as they generally become part of the success of the research. They must be given due credits in all their endeavors. To address this, I made sure that all participants were not able to spend any amount during the interview. I also gave



sensible tokens to them as a sign of recognition to their efforts on the study. [22]

RESULTS AND DISCUSSION

This section provides the details of the results of the qualitative analysis.

Research Question No. 1

What are the different Ata-Manobo rituals?

The Ata-Manobo people do have different rituals as depicted on their culture. Even though they have various rituals, there are some point of which the meaning and the reason of conducting such rituals are the common with one another.

Buya or Fixed Marriage /bŪjΛ/

One of the notable rituals of the Ata-Manobo community is the fixed marriage. The practice of this had started hundreds of years ago. This distinguished the mutual agreement between two families who wish to set their sons and daughters into marriage.

In this kind of ritual, the two involved people in Buya do not know they have been fixed to marriage. Only then they will know they have been arranged on the very day of their marriage.

When it comes to the signs and symbols, there are no certain signs such as dresses to be worn during the Buya. However, there are also instances that they will wear one. Hence, they can celebrate their marriage with or without the succumbed cultural dress for wedding.

Pangujab /pΛŋŪdʒΛb/

This is the ritual that consents on the healing of a sick person. Pangujab asks the Holy Spirit or *Abyan* to heal the illness.

Pangayaw /pΛŋΛjΛw/

The *Pangayaw* is the declaration of a tribal war. This is a form part of revenge. This usually happens when a family member has been killed by other tribal member. In some cases, in couples, when the man has been caught committing illicit relationship with other woman, he can be immediately killed. But if it happens to be the woman who committed the said adultery, the woman will not be killed for they believed that slaying a woman is meeting a bad luck. However, if in case the treachery has been made known by the Datu, it can be settled and killing will be motionless.

Pangayaw can be done through using a spear, arrow, bolo or a modified gun. The execution can also be inflicted to the relatives and the raised animals of the foe. Innocent individuals will not be harmed as much as possible. The *Pangayaw* is an announced ritual.

Damag /dΛmΛg/

This is the Burial Rites. The dead body can either be put in a thin skin of a wood and be covered with a blanket. Some tribal members put the corpse in a native mat and are covered as well with a blanket. The wake does not last long. If the person dies today, it will be buried today. However, some members have

embraced the embalming wherein the dead body can be seen by the relatives especially those who are residing far.

Pangapog /pΛŋΛpog/

This is a ritual that is done first in planting. Initially, it is finding or considering for an area where it shows a sign that it is productive and is likely to provide a great harvest. The ritual in this will include the sacrificial animals like chicken or pig, but the chicken is frequently offered.

Afterwards, in the harvest time, the same ritual is applied. If plants nearly mature, the tribe shall harvest a small quantity then they will put it in the *tambaran* or altar to give thanks to the Gods for the successful planting and harvest.

Research Question No. 2:

What are the semiotic features of Ata-Manobo symbols?

BUYA

The following are the basic or major signs and symbols used in *Buya* as their ritual.

Mamoon /mΛmoon/ (Pica – Pica). *Mamoon* (figure 1) became a form part in preparation of a ritual to have *Mamoon* out of Betel nuts. The people and *Datus* use to share the *Mamoon* after the spoken prayer because the *Mamoon* do serve as their cultural compact that fortifies their bond



Figure 1. Mamoon

through sharing it. This bond could be given emphasis as two parties arrived in a given arrangement with regards to marriage for particular.

Analysis

Mamoon and its overall components (*apog*, *betel nuts*, and *betel leaves*) constitute for stronger bond of the *Ata-Manobos*. This signifies that *Ata-Manobos* have strong bond and relationship towards one another. *Mamoon* has its materials (*Betel nuts*) derived from the bosom of nature. This signifies the natural relationship that transpires between the *Ata-Manobo* people and the nature which provides all the materials needed by the *Manobos* to survive. In connection to such, it is believed that *Mamoon* renders longevity to the lives of the people who consumes this material. This then leads one to the signification that *Mamoon* signifies long life and long-lasting relationships to those who undergo the ritual of *buya*.

Abyan /AbjΛn/ (Holy Spirit). The *Abyan* is believed to be the



Holy Spirit that hears the prayers of the *Baylan* and the people of every ritual. The *Abyan* is considered as the holy spirit of the *Ata-Manobos* who enters the body of the *Baylan* and uses it between the intercession of the people and the ritual. The *Abyan* blesses the decision made between the two families with regards to the marriage. Also, ahead of time, the guidance of the Holy Spirit is asked all throughout the planned marriage. Any kind of ritual or attempt will be of no success unless the presence of the *Abyan* is asked of as well as the sacrifices and other offertories are offered.

Analysis

Abyan refers to the spiritual concept of mighty, invisible supernaturals that govern both the spiritual and human realms. Hence, *Abyan* is the omnipotent entity that is involved in the ritual of *buya*. This then signifies that the intercession of *Abyan* in an *Ata-Manobo* wedding gives blessings to the newlyweds. It is believed that *Ata-Manobo* should always seek the favor of the *Abyan* at all times. This includes the wedding or the ritual of *buya*.



Figure 2. Baylan

Baylan /bʌjlʌn/ (Priestess or Ritual Initiator). The *Baylan* (see figure 2) is the main human character in every ritual. The *Baylan* initiates the ritual and most of the time is the one being consulted of what to prepare during the ritual. The *Baylan* knows and demands what are the materials needed and what are to be offered for the sanctity of the rituals.

The *Baylan* is the one who does the ritual once the unanimity of the Holy Spirit and human body transpires.

Analysis

Baylan refers to the chosen and more experienced person who has a connection to both the world of the spirits and the world of the mortals. Through his or her wisdom in many rituals, *baylan* helps the humans in their endeavors to gain the favor of spirits in their own undertakings, which includes the wedding or *buya*. Hence, it can be said that the *baylan* helps in establishing a relationship in good terms with the mortals of the earth and the spirits of the spiritual world.



Figure 3. Horse

Dowry. Dowry is something that is given in exchange of the favor being made. This could be an animal, gift, gold, or any that the concern party had demanded. Thus, a horse (see figure 3) of which this has been one of the dowries given. The horse is the prime grant that is set as the dowry to the kin of the woman for it means pure spirit. On the other hand, the horse serves as their medium of transportation, basically carrying their crops and things in traveling.

Horses are of great use. They ride on this especially in traversing the high ground areas and rivers. It is a good carriage. Horses are known to have strong limbs and muscles; runs fast than other domestic animals. Thus, setting this as dowry is a main choice in the tribe.



Figure 4. Carabao

Carabao. The carabaos (see figure 4) are known to be the no. 1 animal to consider when talking about cultivating or plowing land. Many consider this animal as *dowry* because most tribesmen own land to till or nurture. Moreover, this animal symbolizes hard work. Carabao can also carry heavier baggage than horses can especially during harvesting of crops. Other animals (see *Figure 5*) like goats, chickens, pigs or wild boars, monkeys, etc. can also become dowries. However, most animals indicated are set to be the *tubad no hayop* or offered animals during rituals for *buya*.



Figure 5. Goat

Analysis

Dowry serves as a price that justifies the ritual that is to be initiated. *Dowry* usually consist of animal livestocks or objects of great value which signify that marriage is a valuable ritual to practice. Moreover, *dowry* elevates the value and specialness of tribal marriage because it makes the family of the woman feel convenient and leaves the impression of being special as they receive presents from the family of the man.



Man and Woman. These are the people who are meant to marry as parents have agreed, that in time, they will espouse. They will strengthen the bond of each family through following the arrangement made by the kinship.

Analysis

They are the main elements of the ritual of buya. It is because it is through the unison of two Ata-Manobo individuals that buya becomes a celebration to all the Ata-Manobo families that are concerned. It is the manifestation that Ata- Manobos consider the creation of families as a vital aspect which reflects their family-oriented culture and inherent close familial ties.

PANGUJAB

The following are the basic or major signs and symbols used in *Pangujab*.



Figure 6. Lirong

Lirong /liron/ (Winnowing Basket). *Lirong* (see figure 6) is used as the basin or container of other materials used by the *Baylan* in the ritual. It is believed that *Lirong* encapsulates all the necessary objects that are needed to sanctify and to offer to the *Abyan* or the guardian spirit for the said ritual.

Analysis

Lirong serves as an object that contains all the materials needed for the ritual of pangujab. From this, it can be inferred that lirong serves to unify and sanctify all the elements which could free the Ata-Manobo people from certain illnesses. Also, lirong is made from the materials derived from the resources of nature. This manifests the Ata- Manobos' theme of being synchronized and intimate with the nature itself.



Figure 7. Moirob

Moirob /moirob/ (Bolo). In some particular rituals, the *Moirob* (see figure 7) is requested by the *Abyan* or chosen by the *Datu* to be part of the ceremony. Commonly, the use of the *Moirob* in rituals is to be included as one of the offerings to the spirits.

Analysis

Most of the time, it is used as the main material that signifies the way of living of the Ata- Manobo. Moreover, they use it for their

living and seemingly, they cannot go and live without this. It is like an integral part of their daily lives.



Figure 8. Cometa or Siu Hoc Tong

Cometa or Siu Hoc Tong /kɔmɛta or ʃɔktoŋ/ (Tonic Wine). It (see figure 8) is one of the offertories during the ritual of *pangujab*. Basically, it is a tonic wine which can be purchased from any accessible stores in Gupitan.

Analysis

It is believed that any ritual could never be started nor conducted successfully without the offering of this wine. This wine signifies a sort of invitation to the Abyan to partake and help the Baylan during the process of liberating many Ata- Manobo people from certain illnesses that afflicted them.



Figure 9. Tubad no Hayop

Tubad No Hayop /tɔbAd nɔ hAjɔp/. The *Tubad no Hayop* (see figure 9) at times are requested by the *Abyan*. These are animals that are sacrificed for the fulfillment of the ritual.

Analysis

These animals are offerings to the Abyan for the sanctity of the ritual. Their blood consecrates the holiness of the ceremony. These served as a divine offering for the Abyan for Him to free the Ata-Manobo people from a certain widespread illness.

Abyan /AbjAn/ (Holy Spirit). The *Abyan* is believed to be the Holy Spirit that hears the prayers of the *Baylan* and the people of every ritual. The *Abyan* is considered as the God of the Ata-Manobo who enters the body of the *Baylan* and uses it between the intercession of the people and the ritual.

Analysis

Any kind of ritual or attempt will be of no success unless the presence of the Abyan is asked of as well as the sacrifices and other offertories are offered. The Abyan is believed to heal the illnesses or any diseases that affect the Ata- Manobo people. Through the Abyan's supernatural powers, the afflicted Ata-



Manobo people are granted with the cure for their illnesses.

Baylan /bʌjlʌn/ (Priestess or Ritual Initiator). The *Baylan* is the main human being in every ritual. The *Baylan* initiates the ritual and most of the time is the one being consulted of what to prepare during the ritual. The *Baylan* knows and demands what are the materials needed and what are to be offered for the sanctity of the rituals.

Analysis

The Baylan is the one who does the ritual once the unanimity of the Holy Spirit and human body transpires. Through the Baylan, the wills of mortals and spirits are unified. Hence, the Baylan serves as a connector to both worlds of mortals and immortals in order to fulfill the ritual of pangujab.

PANGAYAW

The following are the basic or major signs and symbols used in *Pangayaw*.



Figure 10. Moirob

Moirob /mɔɪrɔb/ (Bolo). Usually, a *Moirob* (see figure 10) has a sharp and a blunt side but some of them have two sides that are both sharp. These types are used to slay anything at the back and front. These are usually used in *Pangayaw* or slaying.

Analysis

Moirob is one of the instruments utilized in the ritual of pangayaw. Its sharp edges signify the fangs of justice which could deliver righteous judgment to those who are at fault as well as to those who were wronged. Moirob serves as an instrument to embody justice as well as the battle superiority of the Ata-Manobo warriors.



Figure 11. Bangkaw

Bangkaw /bʌŋkʌw/ (Spear). It has known to be that *pagpangayaw* is a declaration of tribal war and is done because of revenge. As such, there are spears used in this ritual. The spears (see figure 11) used in *Pangayaw* vary from the others.

There are those classified as wide spears of which these are used on killing animals like monkey, boar, and the like along the *pagpangayaw*. On the other hand, the narrow spears are truly designed for the killing of humans during the *pagpangayaw*.

Pangayaw has grounds to consider before compelling. *Pangayaw* can be done considering the following acts. If the husband has been caught cheating, once caught will be immediately killed. However, if the *Datu* had known the illicit affair, negotiations such as the husband shall pay the wife or the family is possible. If the woman committed the affair with another, she will not be killed because they believe killing a woman will bring misfortune. If a tribesman shall be disrespectful and deviant of any form of rules within the tribe, and has not changed after discourse with chieftains, shall be lay open to *Pangayaw*. If a foe had killed kin, *Pangayaw* can be done through killing foe's family or domesticated animal.

However, today's time, if any conflict will arise, the *Datu* will take dialogues to forbid slaying.

Analysis

Bangkaw varies according to functions. If the spear's edge is wider, it is intended for hunting and slaying animals. If the spear's edge is usual in form, it is intended for slaying humans. Bangkaw's length also varies in function. If it is longer, it is intended for long-range hunting. Aside from that, the longer version of bangkaw has a pliant other bottom. This was intentionally made for the bangkaw to fly longer distance when thrown. If it is shorter, the Bangkaw is meant for short-range hunting. It can also be used as a walking stick or a helping tool used to climb steep areas or muddy paths.

Abyan /ʌbjʌn/ (Holy Spirit). The *Abyan* blesses the *Ata-Manobo* people as they have the *Pangayaw* and is that the *Abyan's* protection on every *Ata-Manobo* individual is being asked along the way as they seek for revenge and justice during the tribal war journey.

Analysis

Abyan refers to the spiritual concept of mighty, invisible supernaturals that govern both the spiritual and human realms. Hence, Abyan is the omnipotent entity that is involved in the ritual of pangayaw. This then signifies that the intercession of Abyan in pangayaw gives blessings to the Ata-Manobo warriors to uphold justice and righteousness.

Baylan /bʌjlʌn/ (Priestess or Ritual Initiator). The *Baylan* prays for the success of the *Pangayaw* and safety of the *Ata-Manobo* involved on the said ritual.

Analysis

Baylan refers to the more experienced person who has a connection to both the world of the spirits and the world of the mortals. Through his or her wisdom in many rituals, baylan helps the humans in their endeavors to gain the favor, guidance



and blessing of the spirits in their own undertakings, which includes the delivery of justice. Hence, it can be said that the baylan helps in establishing a relationship in good terms with the mortals of the earth and the spirits of the spiritual world.

DAMAG

The following are the basic or major signs and symbols used in Damag.



Figure 12. Kubow (for Male - center) and **Sugkad** (for Female - right)

Kubow /kɔbɔw/ and **Sugkad** /sɔgkʌd/ (Headdress). The Datu's Kubow has the mane of a horse or goat that served as the filaments while the women in the tribe wear the Sugkad as an adornment on their head. These are usually worn on gatherings and burial rites of the Ata-Manobo community.

The Kubow and Sugkad (see figure 12) are one of the signs of the socio-political status of the Ata-Manobo tribe. It sets as their crown. The more it is specially made, the higher is the rank of the person who wears it. These are usually worn on gatherings and burial rites of the Ata-Manobo community.

Analysis

The Datu's Kubow has the mane of a horse or goat that served as the filaments while the women in the tribe wear the Sugkad as an adornment on their head.

The Kubow and Sugkad are one of the signs of the socio-political status of the Ata-Manobo tribe. It sets as their crown. The higher the value of the adornments (horse mane), the higher is the rank of the person who wears it.

Abyan /ʌbjʌn/ (Holy Spirit). The Abyan gives consent to the spirit of the human to be at peace with the Lord. The Abyan blesses and guides the spirit of the dead as the dead's spirit seeks for peace and reincarnation on the spirit realm.

Analysis

Abyan refers to the spiritual concept of mighty, invisible supernaturals that govern both the spiritual and human realms. Hence, Abyan is the omnipotent entity that is involved in the ritual of Damag. This then signifies that the intercession of Abyan in Pangapog gives blessings to the Ata-Manobo especially to the departed soul to be granted with a peaceful rest.

Baylan /bʌjlʌn/ (Priestess or Ritual Initiator). The Baylan is the one who does the ritual once the unanimity of the Holy Spirit and human body transpires. The Baylan initiates the ceremony of requesting the Supreme beings to accept the spirit of the

person and be at peace with them.

Analysis

Baylan refers to the more experienced person who has a connection to both the world of the spirits and the world of the mortals. Through his or her wisdom in many rituals, baylan helps the humans in their endeavors to gain the favor and blessing of the spirits in their own undertakings, which includes the ritual of pangapog. Hence, it can be said that the baylan helps in delivering the departed soul to his or her peaceful rest.

PANGAPOG

There are various signs and symbols used when the Ata-Manobo people plant and harvest their crops. These are the following:



Figure 13. Ilab

Ilab /ɪlʌb/ (Small Knife). The Ilab (see figure 13) is used and brought every day for it serves as the immediate scalpel whenever they want to cut and sharpen something in the forest or anywhere, and serves as their table knife at home.

Their culture has had different sharp edge materials that have gone or remained and the Ilab is one of the persisted materials which they use every day particularly in planting and harvesting of crops.

Analysis

Ilab is a sharp and edgy material that is considered conventional by the Ata-Manobo people. They usually use it to cut anything related to crops and other agricultural yields. It is considered by the Ata-Manobo as very important in their daily life. It is because they cannot leave their homes without it for it also functions as an immediate weapon for protection, especially on unforeseen danger or circumstances. Moreover, because it is handy, it becomes usable in situations wherein the Ata-Manobos need to instantly acquire food as they traverse the lush forests.



Figure 14. Tubad no Hayop



Tubad No Hayop /tɔbʌd nɔ hʌjɔp/. This *Tubad no Hayop* is one of the important quantities in the ritual. This refers to the animals (see figure 13) used as offering of the ceremony with regards to thanksgiving for a successful planting activity or a bountiful harvest.

The *Hayop* is set as the life sacrifice for the blood of the *Hayop* sanctifies the ritual. The *Tubad no Hayop* should be alive not until the cutting is made after the offertory.

Analysis

These animals are offerings to the Abyan for the sanctity of the ritual. Their blood consecrates the holiness of the ceremony. These served as a divine offering for the Abyan for Him to bless the planting and harvesting of Ata-Manobo's agricultural crops and products.

Abyan /ʌbjʌn/ (Holy Spirit). The *Abyan* blesses the harvest of the people from the *Magboboot*. As such, without the guidance and blessing of the *Abyan* on the planting of the crops, the people will be planting in vain and will harvest less or nothing of what they had sowed.

Analysis

Abyan refers to the spiritual concept of mighty, invisible supernaturals that govern both the spiritual and human realms. Hence, Abyan is the omnipotent entity that is involved in the ritual of pangapog. This then signifies that the intercession of Abyan in pangapog gives blessings to the Ata-Manobo for a blessed planting and bountiful harvesting of agricultural products.

Baylan /bʌjlʌn/ (Priestess or Ritual Initiator). The *Baylan* asks the *Abyan's* providence to make the planting and harvesting successful. The blessing from the *Abyan* as interceded by the *Baylan* will determine the success and failure of the planting of the crops.

Analysis

Baylan refers to the more experienced person who has a connection to both the world of the spirits and the world of the mortals. Through his or her wisdom in many rituals, baylan helps the humans in their endeavors to gain the blessing of the spirits in their own undertakings, which includes the rituals of planting and harvesting. Hence, it can be said that the baylan helps in establishing a relationship in good terms with the mortals of the earth and the spirits of the spiritual world.

Research Question No. 3:

How do the Ata-Manobos preserve the sesymbols?

Educate Young Ones

It was revealed in the in-depth interview that one way of preserving the Ata-Manobo signs and symbols is to educate the young ones. It is further stated that Ata-Manobo should never forget and forsake the culture that they possess through letting the young know and practice the same set of rituals.

Cultural Celebration

Another theme has emerged during the in- depth interview. It was unearthed that another way to preserve the signs and symbols is to celebrate the culture of Ata-Manobos. It was further elaborated that performing the cultural rituals every month is one way to celebrate their culture.

Display of Craft

During the focus group discussion, it was discovered that another way in preserving the signs and symbols of Ata-Manobo is to display their craft. One participant mentioned that during the ritual pangujab, the tribal members sport their ethnic materials such as the sagubadbad, samanoy, bagoyboy, mamaon, apog, buyo and umpit.

Practice Rituals

Another way for one to preserve the signs and symbols of the Ata-Manobo culture is to practice the rituals. It was accentuated that they still do an array of Ata-Manobo rituals even nowadays. These include the buya, pangujab, pangayaw, damag, and pangapog.

CONCLUSION AND RECOMMENDATION

My study entails the written documentation of the culture of the Ata-Manobo of Gupitan, Kapalong, Davao del Norte. In a way, this is a help on preserving their culture since most of the literature are in the Ata- Manobos of Talaingod, Davao del Norte. This study fortifies the idealism of the elders in Gupitan area to reunite culture to their people and to hand down their practices to the young folks. Their culture is fascinating. Their people and rituals are beautiful.

The findings of my study from the voices of Ata- Manobo people, particularly the elders, were viewed to the subject of having the semiotic analysis on the signs and symbols being used in Ata-Manobo rituals. Further research could be conducted with another set of participants to find out the view and insight of the informants that will lead to more authentic results of the aforementioned study.

Also, further research may be done through re- conducting the study or interview some participants in my study again to validate the results of the study. This would investigate the same phenomenon among the Ata- Manobo people with regards to their rituals' signs and symbols that are purposely used for this will give clearer and additional information related to the concept under study. Other exploration and research studies with regards to the semiotic analysis of signs and symbols on Ata-Manobo rituals on other barangays or municipalities as well as to other regions may be conducted. Perhaps, the results and findings of my study paved the way to the awareness and enlightenment of the importance and value of the different sign and symbols as taken from the answers of the informants.

As to the learnings I gained, one of the insights I learned is that constant practice and celebration of their rituals, signs and



symbols may preserve the continuity of their culture up to the forthcoming years. Another is that education and cultural preservation can still coexist in the lives of the Ata-Manobo through incorporating the Indigenous People (IP) Education to the academic curricula of educational institutions. In this way, the Ata-Manobo can still enjoy the benefits of education without fearing the elimination of their own ethnic identity. Another is the fact that local government units (LGUs) and national government agencies can empower the preservation and practice of these fading rituals through conducting more cultural celebrations and rendering government support and protection to these groups of individuals. In this way, the Ata-Manobo heritage can endure more numbers of generations in the coming future.

To conclude this research endeavor, I would like to express how thankful I am for having this rare opportunity of probing this extraordinary group of people. Also, I would like to encourage my fellow researchers to study the lives of the Ata-Manobo. It may be about their ways of living, their perceptions in life, and anything else which could surface out the beauty of their peerless cultural heritage. In such way, all of us could help in bringing to the global fore the amazing culture of the Ata-Manobo – one of the unified cultures that are proudly Filipino.

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AUTHOR'S NOTE

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EFFECT OF SELF-ESTEEM ON LIFE SATISFACTION AMONG ADOLESCENTS

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ABSTRACT

This study aims to investigate two things based on the empirical data mentioned above: (1) how self-esteem and life satisfaction are related (2) the effects of gender on self-esteem as well life satisfaction. This review paper indicates that our emotional health, relationships, well-being, and ability to make decisions are all impacted by our sense of self-esteem. Adolescents who are confident in their skills and abilities may feel more satisfied with their lives generally, which could lead to higher self-esteem. Similarly, persons who tend to underestimate their own skills may have lower levels of positive self-esteem in response to reduced life satisfaction. Adolescents with high life satisfaction scores also exhibit better levels of social, emotional, and academic self-efficacy than those with low life satisfaction. Reduced levels of happiness and life satisfaction might result from poor self-esteem. Life satisfaction and self-esteem help adolescents to control, regulate, or reduce psychological distress and increase their subjective happiness, which in turn contributes to their overall mental well-being. Whether these two variables are high in boys or girls, the conclusion is that gender has an impact on self-esteem and life satisfaction. Increased life satisfaction is predicted by self-esteem and academic achievement in both boys and girls Gender influences the expression and growth of self-esteem.

KEYWORDS: *Self-Esteem, Life satisfaction, Adolescents*

INTRODUCTION

Self-esteem has sparked the interest of many researchers in recent years and is seen to be an essential aspect of psychological well-being. It's essential to remember that self-esteem is an evolving concept. A person's subjective impression of their overall value and self-worth is known as their self-esteem. It depends on our perceptions of ourselves, which can be difficult to modify. It could be viewed as an indicator of how much individual "values, approves, appreciates, prizes, or likes to oneself" (Adler & Stewart, 2004). Rosenberg, a self-esteem specialist declared in 1965 that a person's attitude towards themselves is fundamentally their sense of self-worth. He described "favorable or unfavorable attitude toward the self". It expresses our level of confidence in our abilities and attributes, much like self-respect does. Self-esteem can affect our life in numerous ways, from mental health to academic and relationships to professional success and motivation to quality of life. Self-esteem, however, is not an unassailable characteristic; successes or obstacles, both personal and professional, can fuel variations in feelings of self-worth. Our emotional health, relationships, well-being, and ability to make decisions are all impacted by our sense of esteem. Numerous studies have demonstrated a clear connection between our general well-being and our sense of self-esteem. It also has an impact on motivation; those with a healthy, optimistic self-concept are better able to recognize their potential and may be motivated to take on new challenges.

Self-esteem often peaks in adolescence and adulthood, having reached its lowest in childhood. Self-esteem may vary among adolescents; it depends upon a number of factors, like their social relationships, personal identity and academic performance. According to Szczesniak et al. (2021), when youngsters are aware of their abilities and capabilities a broad sense of satisfaction with one's existence could result in an increase in esteem. Similarly, persons who tend to underestimate their own skills may have lower levels of positive self-esteem in response to reduced life satisfaction. Most people fall under three types of self-esteem and those three types are:

TYPES OF SELF-ESTEEM

High Self-Esteem: People who possess excessively high self-esteem frequently exhibit sentiments of entitlement, haughtiness, and dominance. High self-esteem individuals have low stress levels, seek and receive more social support from others and use more adaptable coping mechanisms, all of which improve their overall health, obsessed with perfectionist, think they are better or more skilled than other people, can never fail, always be correct and overestimate their skills and abilities. Negative aspects of high self-esteem are: they may block themselves from self-improvement and also reason behind it may be they are so fixated on perceive themselves as perfect. Overly high self-esteem can



lead to issues in relationships, make social situations difficult, and make it difficult to accept criticism.

Low Self-Esteem: Individuals who have low self-esteem believe they are unloved and lack confidence in who they are and what they can do, not sure about their capabilities and their decision making process and also feel themselves as incompetent persons, often feel difficulties in relationship management and not able to express themselves in front of others. They believe that they can't reach goal, due to which they do not try anything new. Additionally, they frequently feel anxiety and self-doubt, always focus on their flaws, and think that others are better than them and have a negative outlook on life and having difficulty saying no and accepting compliments. In adolescents, low self-esteem related with high risk of mental health problems. Low self-esteem is also related with suicide, low academic achievement, violence and school dropout rates (Misetich & Delis-Abrams, 2003).

Healthy Self-Esteem: People with healthy self-esteem have perfect and balanced viewpoint about their self. People can inspire themselves to achieve their goals by having a good sense of esteem. Furthermore, people with high self-esteem are able to maintain positive relationships with both themselves and other people as well as create reasonable limits in their relations. However, excessively high or low self-esteem can both be harmful. Strong self-perception, the capacity to uphold positive strong connections with oneself lead to harmonious relationships with others, reasonable and realistic expectations, awareness of one's needs and the capacity to communicate those needs are all signs of healthy self-esteem.

Life Satisfaction

A person can measure their level of life satisfaction by contrasting what they currently own with what they would like to acquire (Altay & Avci, 2009). Life satisfaction can be assessed by how people evaluate their life as a whole rather than their present emotional state. Life satisfaction is the self-appraisal of a person's quality of life. According to Shin and Johnson (1978), satisfaction with life is "a global assessment of a person's quality of life according to his chosen criteria". The definition of life satisfaction is "a person's cognitive and affective evaluations of his or her life" (Diener et al., 2002). Life satisfaction related to a wide range of interpersonal, psychological, intrapersonal and behavioral factors. Antaramian et al. (2008) suggest that adolescents' life satisfaction depends on personal and social determinants. An individual's evaluation of their life as a whole is reflected in their level of life satisfaction, encompassing various aspects such as friends, family, school and themselves.

Adolescence is a period which associated with various forms of life satisfaction as a result of the various changes in psychological, biological, societal, and cognition that are taking place at this time. Because they want to live a high-quality life, students may choose to pursue a positive interest for self-esteem

and life satisfaction. Happiness and life satisfaction can be influenced by self-esteem. Those persons have higher self-esteem can leads to general feeling of satisfaction in life. Strong friendships and relationships make people happier, more content with life, and have higher self-esteem. Similarly, persons who tend to underestimate their own skills may have lower levels of positive self-esteem in response to reduced life satisfaction.

LITERATURE REVIEW

Numerous researches have indicated that a key determinant of life satisfaction is self-esteem (Diener and Diener, 1995). Another study done by Baumeister et al. (2003) found that in all types of achievement and success, level of self-esteem is an important aspect. Consequently, reduced levels of happiness and life satisfaction might result from poor self-esteem. In male, female, urban, and general category individuals, the study revealed a robust relationship between life happiness and self-esteem (Patel et al., 2018). Similarly Suldo and Huebner (2006) did a study and concluded that adolescents with high life satisfaction scores also exhibit better levels of social, emotional, and academic self-efficacy than those with low life satisfaction. Along with this, researcher has also made another contribution supporting this link between life satisfaction and self-esteem demonstrates that adolescents who are satisfied with their lives have high levels of hope and self-esteem and low levels of despair and anxiety. Increased life satisfaction is predicted by self-esteem and academic achievement in both boys and girls (Salmela-Aro & Tuominen-Soini, 2010).

Research by Cecen (2008) revealed a strong positive correlation between an individual's self-esteem and life satisfaction. Consequently, strong life satisfaction is likely to be experienced by persons who have strong self-esteem. Project work given by McGrath (2015) explores 'self-efficacy, self-esteem, social anxiety, life satisfaction and social networking among college students.' Results showed self-efficacy, life satisfaction, and social anxiety was found to be significantly correlated. Students who interact with their friends in person demonstrated strong levels of esteem but gender and age didn't affect these variables significantly. Likewise, those who possess a high feeling of self-esteem also have positive relationships with others and oneself too also have healthy self-esteem.

Ruth (2023) states relationship between self-esteem and happiness is significant because self-esteem is a key component of overall well-being and mental health, and correlated with many positive outcomes, including happiness, life satisfaction, and resilience. High self-esteem individuals experience greater levels of happiness and life satisfaction. Perveen et al. (2021) explored that among college students, life satisfaction is more important than academic achievement and the presence of self-esteem. The study's conclusions demonstrate a strong positive relationship between academic success, life satisfaction and self-esteem among college students.



Hill (2015) examined a study and came to the conclusion that males had far higher levels of self-esteem than females, who also had lower levels of subjective happiness and life satisfaction. Furthermore, there was a high correlation between subjective happiness and life satisfaction and self-esteem. The results also demonstrate that there are gender differences in these variables and that self-esteem predicts subjective happiness and life satisfaction. Study given by Labiscsak-Erdelyi et al. (2022) demonstrates that self-esteem influences life satisfaction through several school-related variables as well as act as an independent component. Self-esteem is the belief that one is a good student and having a wealthy family are the most important and positive indicators of life satisfaction. Apart from this, life satisfaction is positively correlated with a general positive attitude towards learning and positive relationships with teachers and peers. Conversely, it was shown that gender; relationships with classmates, and self-esteem were important moderators of the impacts of perceived difficulty with schooling.

The findings of Freire and Ferreira (2020) demonstrate how important life satisfaction and self-esteem are in helping adolescents control, regulate, or reduce psychological distress and increase their subjective happiness, which in turn contributes to their overall mental well-being. But according to Gayathri and Yohannan (2023), gender and academic course (UG or PG) have no impact on self-esteem levels and academic life satisfaction. According to the study, there would be no differences on the self-esteem and academic life satisfaction between students pursuing social work and their semester grades. In essence, study also showed that higher levels of self-esteem lead to greater on academic life satisfaction. Furthermore, this study projects that by giving college students; pursuing social work specific life skill training, counseling, and social work intervention strategies, their academic life satisfaction and self-esteem will improve.

Every individual's financial status also affects their life satisfaction and self-esteem level. A study conducted by Liu and Fu (2022) revealed poverty, self-esteem, and life satisfaction are related to each other negatively. But level of life satisfaction positively associated with self-esteem. Self-esteem slightly mediated the relationship between poverty and life satisfaction. According to Bannink et al. (2016), young individuals who thought their family was richer or poorer than their peers had lower life satisfaction and self-esteem even when income was taken into account. In Adolescents highest self-esteem and life satisfaction increased with income. Low income might increase the probability of having low life satisfaction and self-esteem.

Moksnes et al. (2022) did research study and found strong negative association between loneliness and life satisfaction and strong positive correlation with life satisfaction and self-esteem, this association found stronger in girls as compared to boys. In a study on the relationship between learning achievement and self-esteem, Saadat et al. (2012) revealed significant gender disparities in the degree of self-esteem among male and female students. Male students outperform female students in terms of family self-

esteem. Students' academic performance is significantly positively correlated with both parental and educational self-esteem. When it comes to participating in and performing well in extracurricular activities, games, and competitions, students with strong self-esteem do well academically.

Kadir (2011) found extraversion correlates with life satisfaction, self-esteem and well-being also. Other than this these three factors significantly contributed to general well-being. But no significant differences were found between gender and general well-being. Similarly Jameel and Shah (2020) found significant positive relationship between self-esteem and life satisfaction among adolescents. On the other hand, positive significant relationship was found between self-esteem and life satisfaction however, there was no significant difference between both genders in terms of life happiness or self-esteem. It means life satisfaction and self-efficacy doesn't affected by gender. Among university students, it can be stated that both genders have similar levels of life satisfaction and self-esteem (Kaushik and Kiran Babu, 2021).

Agyar (2013) explored a study on sports students and found positive correlations between life satisfaction, perceived freedom and self-esteem. However, there was no significant difference between self-esteem and life satisfaction and perceived freedom according to gender, on other side age-related differences in perceived freedom were shown to be significant. Self-esteem also affects by gender, female students are low on self-esteem and quality of life than male students (Martinsen et al., 2021). Kachroo et al. (2021) explored a study and found no significant difference on the dimension of self-esteem and life satisfaction among boys and girls but there is positive and significant relationship was found between life satisfaction and self-esteem.

CONCLUSION

The main objective of the present study was to determine the effects of life satisfaction and self-esteem on adolescents, as well as whether gender influences these constructs in any way. After reviewing many research studies, it can be concluded that life satisfaction has a great influence on the self-esteem level of every adolescent. Self-esteem plays a significant role in adolescents' academic achievement and maintains personal relationships as well. High levels of life satisfaction are expected in adolescents who possess strong self-esteem. Our emotional health, relationships, well-being, and ability to make decisions are all impacted by our sense of self-esteem. Adolescents who are confident in their abilities and strengths might be more satisfied with their lives generally and have higher self-esteem. Similarly, persons who tend to underestimate their own skills may have lower levels of positive self-esteem in response to reduced life satisfaction. Another objective of the present paper was whether influence of gender on life satisfaction and self-esteem or not, it is not easy to decide whether gender has an effect or not because some of the papers are showing the impact of gender and some are not. Still, after reading the research, this paper has reached the conclusion that there is a gender difference in life satisfaction and



self-esteem besides some papers concluded girls are high on life satisfaction and self-esteem than boys other claims self-esteem and life satisfaction are higher in boys as compared to girls. Whether these two variables are high in boys or girls, the conclusion is that gender has an impact on self-esteem and life satisfaction. Gender influences the expression and growth of self-esteem.

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ARDUINO BASED AUTOMATIC SHOE CLEANING MACHINE

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ABSTRACT

Designing and building an intelligent, automated polishing equipment is the goal of our project. All employees in any firm are required to follow the dress code, which includes wearing shoes. It takes time to wear clean shoes on a regular basis in today's hectic society. This device lessens the complexity of currently accessible items on the market. Because this project is new and practical, our product works better in any kind of company. The clever automatic shoe polishing machine's design meets the demands of the current market environment. The machine's ability to carry out the necessary function with a high degree of accuracy is the main innovative feature of this project. The device that simultaneously cleans the bottoms of the shoes and has a sole cleaner. The chosen mechanism is extremely straightforward and offers the safest and most adaptable operations for an extended lifespan. This project's mobility and flexibility qualities are its highlights. The shoe polishing machine's integrated blue-tooth feature helps the staff shine their shoes more wisely. When it comes to shoe polishing, this project works better than any traditional technique.

KEYWORD: Design, Fabrication, Shoe polishing, Smart, Blue-tooth

1. INTRODUCTION

In today's corporate environment, appearance is crucial to projecting professionalism. This is why properly shining and polishing shoes is more important. Hand-polishing the shoe could cause harm to the leather's surface. The shoe's life will be shortened in this way. Beyond this, polishing will require a significant amount of time and labor. However, the automatic shoe polishers that are currently on the market will not perform the desired shine and will require additional time to polish.

A shoe is a type of footwear designed to keep the human foot comfortable and safe while doing different tasks. Since leather is used to make most shoes, it needs to be treated very carefully and polished frequently to keep its glossy look. This calls for the use of a waxy paste or cream called shoe polishing wax, which is first uniformly applied to the shoe with a cloth or brush. The next step is buffing, which involves rubbing it hard to create a glossy finish. This increases the shoe's lifespan as well. The manual application of this wax takes a lot of time. This machine's functions include properly gripping the shoe, putting a layer of polishing wax all over it, and buffing it to give it a shiny appearance while causing the least amount of damage possible.

Although there are many different kinds of machines, a sophisticated manner of manufacturing them allows users to operate them while also satisfying their never-ending demands. Nevertheless, this kind is still open to further change. In a short amount of time, the automatic shoe polishing machine polishes your shoes, saving you strength and work. Because of this, we have invented a machine that will give your shoes the ideal look and excellent shine every day. Professionals want their shoes to

look nice and last longer, but they sometimes forget to perform the necessary steps.

More focus should be placed on the automation of the primary issues that emerged with manual machine types. Professionals primarily focus on simpler and more intelligent ways to live. It has been determined for the advancement of innovation after taking all of these aspects into consideration. In the coming sections the motivation, objectives, and the fabrication of our innovation have been discussed clearly.

2. AIM AND PROBLEM STATEMENT

Aim: In light of the aforementioned characteristics of the shoe-polishing machine, an effort has been made to create a novel device that might carry out the necessary tasks more effectively and affordably.

One of the main goals of the current effort is to minimize the need for human labor. The Other ones are

- To enhance the quality of the polished features
- To shorten the time needed for shoe care □ To provide sole polishing as an extra feature
- To give the consumer a high-quality, shiny product at a reasonable price while taking ergonomics into account and saving time.

Problem Statement: The first shoe shine machine was created, and it was incredibly difficult to use. In today's corporate environment, appearance is crucial for professionalism. In this context, shining and properly polishing shoes is very important. Hand-polishing the shoe could cause harm to the leather's surface. The shoe's life will be shortened in this way. It



will require a lot of time and human labor to polish beyond this. However, the automatic shoe polishers that are now on the market will not apply the appropriate shine and will require additional time to polish. An ergonomically built and more efficient shoe polishing equipment is necessary to address all of these challenges. In order to overcome all of these challenges, the machine is equipped with two side and one top brushes, which cover the entire shoe section and yield higher-quality shoe polish than those found in the market today. Additionally, it cuts down on how long shoe polishing takes. In order to eliminate the requirement for polish application and physical labor, the machine uses a polishing dispenser.

3. LITERATURE REVIEW

By incorporating a polishing function, the design of an innovative shoe-sole cleaning machine is recognized as a requirement for development. To protect themselves and maintain a clean environment, all working professionals are required to wear clean shoes when they enter their facility. The integrated shoe polishing and sole-cleaning facility that previous researchers created took these qualities into consideration.

From the standpoint of the industry, the creation of an autonomous shoe polishing machine has the potential to relieve the challenges associated with currently available products on the market while also promoting their use in offices [1]. Later on, a shoe-cleaning and shoe-polishing machine was developed in tandem due to the necessity to meet various customer requirements, including compactness and cost-effective characteristics [2]. The automatic closed-loop speed regulation of a DC motor is based on pulse width modulation, or PWM. Using an Atmega-8L microcontroller as a feedback system, the authors investigated how to use the PWM approach to control the speed of the DC motor under various load situations. It was determined that PWM can maintain constant speed under various load scenarios [3].

According to reports, an innovative approach to phase control is created by utilizing ARDUINO software to code a program. The ARDUINO controller receives user input and produces firing pulses for the TRIAC, which regulates the induction motor's speed [4]. An Arduino controller kit is utilized to carry out the entire procedure, and Tera-Term software and an Arduino microcontroller are used for the serial monitor and microcontroller. This leads to the induction motor's variable speed control [5].

The shoe polishing machine uses sensor equipment to polish the shoe in a brief amount of time while requiring only one or a single coin [6].

A reasonably priced, semi-automatic sole washing device has been available recently. The simplest method of cleaning shoes has been made possible by the design and fabrication of a sole cleaner [7]. The motor's speed changes as a result of the signals' duty-cycle variation. The motor's ripple current is obtained using

data acquisition (DAQ) and is utilized as a feedback component. An industry standard control algorithm that is frequently employed is the proportional-integral-derivative (PID) control.

As of right now, the research merely presents specific sensor/device approaches for the coin-based operation of the shoe-polishing machine. The current project aims to use an integrated mechanism to design and build a fully automatic shoe-sole polishing machine. Ecological sustainability and energy efficiency are essential components for optimizing resource utilization. [9].

In this work, we have made use of the Arduino Processor, which provides an integrated mechanism that uses Bluetooth connectivity to help the user in the remote mode. The industry should transition to automation or semi-automation in order to increase productivity and produce high-quality goods at a reasonable cost. Automation is a good idea for repetitive operations. One of the tasks that is primarily performed by hand in the steel door industry is the packing of doors [10].

Among similar possibilities, fuzzy TOPSIS (Technique for Order Preference by Similarities to optimal answer) is one of the finest ways to find the optimal answer. Additionally, it can be applied to automate the procedure and get rid of doubt and ambiguity in the choosing process [11].

The goal of this research is to automate the process of shining and polishing shoes without requiring human intervention [12]. The primary function of the integrated sensor is to detect and quantify the dimensions, weight, and magnetic characteristics of the coin that is being stored. Only when there is actual physical touch between the sensors and the human do they function.

4. METHODS AND METHODOLOGY

The project's goal is to develop a shoe-shinning device that solves issues with traditional methods and produces high-quality results that are either identical to those achieved by hand shining shoes or drastically better. Coins are deposited by the user into the machine's external coin slot. When a coin crosses the infrared sensor, the IR transmitter transmits signals towards the coin, which are subsequently reflected to the IR receiver. The IR sensor then transfers the signals to the Arduino board, which in turn transfers the signals to the power supply board, which in turn transfers the signals to the 2 mode relay. The signals are processed by the relay and then sent to the transformer that converts 12 volts. The power is converted to an AC motor via the transformer. The motor begins operating when it gets impulses from the transformer. The block diagram of the shoe-polishing machine mechanism is represented in Figure 1

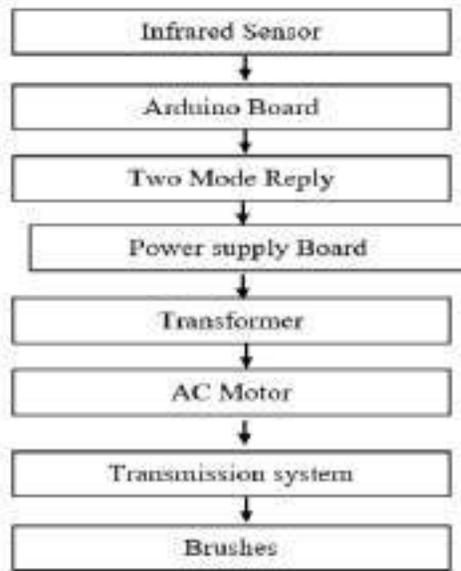


Fig.1. Block Diagram

A secured container or receptacle used to store change placed in coin-operated devices such as turnstiles, pay phones, and pinball machines. A secured container to hold the coins put into coin-operated devices (like pay phones). One term for a coin collector is numismatic or numismatist. Numismatic refers to the study or gathering of banknotes. This includes coins, medals, paper money, and tokens. It can also refer to an individual who examines or gathers banknotes. The coin collecting box is represented in Figure 2.



Fig.2. Coin Collection Box

IR Sensors

The IR Sensor module exhibits remarkable adaptability to ambient light. It consists of two tubes: an infrared transmitter and a receiver tube. The emitting tube emits a specific frequency when it encounters an obstacle detection direction (a reflecting surface). The infrared reflected the receiver tube receiving, and following comparator circuit processing, the green LED illuminates. The signal output generates a digital signal, which is a low-level signal. The detection distance can be adjusted between 2 and 10

cm, with a potentiometer knob. The working voltage range for this module is 3.3V to 5V. Its block diagram is shown in figure 3.

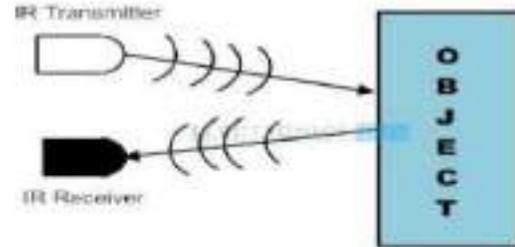


Fig.3. Infra Red sensor

Arduino Board

An open-source microcontroller board based on the ATmega328 chip is called the Arduino Uno R3. This board features an onboard 16 MHz ceramic resonator, 6 analog input pins, 14 digital input/output pins, an ICSP header, an onboard DC power jack, a USB port, and a microcontroller reset button. Figure 5 shows the Arduino board that is being used in this experiment. Everything required to sustain the microcontroller is contained in it. Using the board is also very easy, simply connect it to a computer with a USB cable or power it with a DC adapter or battery

External (non-USB) power sources include batteries and wall-wart AC-to-DC adapters. To connect the adapter, insert a 2.1 mm center-positive connector into the power jack on the board. Also leads from a battery can be inserted in the Gnd and Vin pin headers of the Power connector. A 6 to 20 volt external supply can power the board. However, if the supply is less than 7V, the 5V pin might only provide 5V, which could make the board unstable. The voltage regulator may overheat and harm the board if more than 12V is used. For Arduino Uno, a recommended voltage range is 5v to 12v.



Fig.4. Arduino Board

Power Supply Board

The regulated power supply is appropriate for microcontroller applications that require exact voltage to function since it can accept unregulated inputs ranging from 7.5V to 15V AC or DC and output regulated outputs of 5V and 12V. The power transformer or wall-mounted DC adapter can supply the input.



Fig.5. Power Supply Board

5. WORKING PRINCIPLE

This machine's introduction facilitates efficient operation by consolidating cleaning and polishing tasks into a single location. It lessens the labor of humans. This gadget is affordable and portable; it not only fulfills the requirement but also gives the faculty member who wears the shoe on a daily basis a new way of life. Coins are deposited by the user into the coin slot outside the machine.

When a coin crosses the infrared sensor, the IR transmitter transmits signals towards the coin, which are subsequently reflected towards the IR receiver. The IR sensor then transfers the signals to the Arduino board, which in turn transfers the signals to the power supply board, which in turn transfers the signals to the 2 mode relay. The signals are processed by the relay and then sent to the transformer that converts 12 volts.

The power is converted to an ac motor via the transformer. The motor turns on when it gets the signals from the transformer. The sole cleaning brush shaft and shoe polishing brush shaft are connected by the chain drive, which converts the motor's power into the sole cleaning brush shaft. This module can be the best option for you if you're seeking for a wireless module that can send data to and from a microcontroller and your computer or smartphone. You may need to check at the CSR8645 module for multimedia transfers, such as songs or images, as this module is not designed to transfer such types of files. Upon powering on the module, you ought to be able to identify the Bluetooth device as "HC-05." Once connected, you can initiate communication with it by entering the default password, 0000.

The photograph of the system has been shown in fig.6



Fig.9 .Photograph of the Machine

We have reached the following conclusions in the current work. It is possible to further enhance this work by making some changes. The following findings were reached by the primary goal of designing and building an autonomous smart shoe cleaning machine that runs on coins:

- When the user applies wax polish to their shoes, the rotary brushes attached to the shaft help polish the shoes and the high-speed rotation of the brushes helps clean the shoe sole effectively.
- The machine would work better in a commercial setting because it is coin-operated. In order to efficiently handle the machine's upkeep.
- Additionally, it performs the buffing process to make the shoes appear shining.

The project has a better design at the academic level, but it is not yet finished for the commercial application. Only conventional shoe sizes are compatible with the suggested design. The created apparatus has the capacity to polish a pair of shoes in just 120 seconds. The created coin-based automatic smart shoe polishing equipment can initially be linked to a variety of gadgets, including PCs, tablets, and smartphones.

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