



MOTIVATIONS AND BARRIERS OF PUBLIC-SCHOOL TEACHERS TO ONLINE EDUCATION: A CASE STUDY

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ABSTRACT

The purpose of studying the motivations and barriers of public-school teachers to online education was to gain a comprehensive understanding of the factors influencing their adoption and implementation of digital learning methods. In this study, three (3) qualified teacher participants possessed relevant experience and expertise directly related to the case under study. This typically included a background in teaching the subject or grade level being investigated, as well as practical experience within the educational setting of interest. In case study research, the design and procedure were meticulously crafted to provide an in-depth understanding of a specific phenomenon within its real-life context. The design began with the selection of a case or cases that were particularly relevant to the research question. This study examined the motivations and barriers public-school teachers face in adopting online education, focusing on technological competency and challenges in remote areas. Teachers were motivated to enhance their skills and improve teaching practices with digital tools to engage students. However, many faced barriers due to limited technological competency and inadequate access to technology and reliable internet, particularly in remote areas. The study highlights these challenges and offers insights for improving training, resources, and support to enhance online learning outcomes.

KEYWORDS- Motivation, Barriers, Public School Teachers, Online, Education

INTRODUCTION

The shift to online education has fundamentally altered the landscape of teaching and learning, particularly within the realm of public schools. This transition, accelerated by global events has brought to light a complex interplay of motivations and barriers experienced by public-school teachers as they adapt to this new mode of instruction. Motivations for embracing online education often include the opportunity for innovative teaching practices, increased flexibility in delivering content, and the potential to reach a broader audience of students. Online platforms offer teachers the ability to utilize diverse digital tools and resources, potentially enhancing the learning experience and fostering more personalized instruction.

In Malaysia, the transition to online education is not without its challenges. Barriers such as limited access to technology, inadequate digital literacy, and insufficient training can impede the effectiveness of online teaching. Many public-school teachers face difficulties in accessing reliable internet connections, which affects their ability to deliver consistent and high-quality instruction. Moreover, the rapid pace of technological change often outstrips the professional development opportunities available to educators, leaving them ill-equipped to leverage new tools and platforms effectively (Jackson, et al, 2020; Koohang, 2019). The shift also raises concerns about maintaining student engagement and managing classroom dynamics in a virtual environment, presenting further obstacles to successful implementation.

In South Africa motivations and barriers is crucial for developing effective support systems and strategies to enhance online education in public schools. By exploring the experiences of public-school teachers, stakeholders can identify key areas for improvement and invest in solutions that address both the opportunities and challenges presented by online learning (Allen & Seaman, 2019). This comprehensive examination of motivations and barriers will contribute to a more nuanced understanding of the dynamics of online education, guiding future efforts to support educators and optimize the learning experience for students in the digital age (Januszewski & Molenda, 2021).

In the United States, the transition to online education has been driven by a mix of motivations and barriers that public-school teachers encounter. Motivations for adopting online education often include the promise of greater instructional flexibility, the ability to integrate innovative teaching technologies, and the potential to enhance personalized learning experiences (Murphy, 2019; Anderson & Iwanicki, 2024; Baylen & Zhu, 2019). Teachers appreciate the opportunity to utilize digital tools that can make lessons more engaging and interactive, catering to diverse learning styles and needs. Online platforms also offer the flexibility to design schedules that accommodate various student paces and personal circumstances, potentially improving access to education for all students (Betts, 2018; Cai & Zhu, 2022).



However, the shift to online education presents significant barriers. One major challenge is the disparity in access to technology and reliable internet among students and educators, which can exacerbate educational inequalities. Many teachers face difficulties in obtaining and maintaining the necessary technology and ensuring that all students have the resources needed for effective learning (Chester & Gwyne, 2018; Hood, 2019; Kozma, 2023).

Additionally, there is often a lack of adequate training and support for educators to effectively navigate new online platforms and teaching tools. This gap in professional development can hinder teachers' ability to fully leverage technology and create engaging online learning environments (Lee, 2020; Russel & McCarron, 2019; Taneri, 2023; Wild, et al, 2022). Furthermore, maintaining student engagement and managing classroom dynamics in a virtual setting can be particularly challenging, as teachers must adapt to new methods of fostering interaction and participation (Xiao, 2024).

Addressing these motivations and barriers requires a comprehensive approach that includes investing in technology infrastructure, providing targeted professional development, and developing strategies to ensure equitable access to resources (Alameri, et al, 2020; Durf & Carter, 2019). By understanding the complex interplay of motivations and obstacles faced by public-school teachers, policymakers and educational leaders can better support the transition to online education and enhance the effectiveness of virtual learning environments.

In Manila Philippines, the adoption of online education in public schools has been shaped by a range of motivations and barriers that reflect the unique context of the country's educational landscape. Motivations for embracing online education include the desire to enhance instructional delivery and provide students with access to a broader range of learning resources. Teachers are motivated by the potential to incorporate interactive digital tools and multimedia resources that can make lessons more engaging and relevant. Online platforms also offer the flexibility to accommodate diverse learning paces and needs, which can be particularly beneficial in a country with a wide range of socio-economic backgrounds and geographical challenges (Gonzales, et al, 2020).

However, the transition to online education in the Philippines is fraught with significant barriers. A primary challenge is the disparity in access to technology and reliable internet connectivity, which is especially pronounced in rural and underserved areas. Many students and teachers face difficulties in obtaining the necessary devices and maintaining stable internet connections, which impedes the effectiveness of online learning (Garcia, 2020).

However in Makati City, there is often a lack of sufficient training and support for teachers to effectively use online platforms and digital tools. This gap in professional development can limit teachers' ability to integrate technology effectively into their instruction and manage online classrooms efficiently. Moreover, maintaining student engagement and addressing the digital divide remain critical issues, as the online environment may exacerbate existing educational inequalities (Gonzales, 2019).

Addressing these motivations and barriers in Cebu City requires targeted efforts, including investments in technology infrastructure, enhanced professional development programs, and initiatives to ensure equitable access to resources. By understanding the specific challenges and opportunities faced by public-school teachers in the Philippines, stakeholders can better support the integration of online education and work towards creating more inclusive and effective learning environments (Neves de Jesus & Lens, 2021).

In Davao City, the transition to online education for public-school teachers has been driven by a mix of motivations and barriers that reflect both local and broader educational challenges. Motivations for adopting online education include the potential for innovative teaching methods and the ability to reach students in diverse and often geographically dispersed communities. Teachers are motivated by the opportunity to utilize digital tools that can enhance lesson delivery and provide students with access to a wider array of educational resources. The flexibility of online platforms also allows for accommodating various learning paces and needs, which is particularly beneficial in a city with a diverse student population (Department of Education, 2020)

Despite these motivations, several barriers hinder the effective implementation of online education in Davao City. A significant challenge is the disparity in access to technology and reliable internet, which affects both students and teachers, particularly in more remote or economically disadvantaged areas. Limited access to devices and unstable internet connections can disrupt learning and limit the effectiveness of online instruction. Additionally, there is often a lack of comprehensive training and support for teachers to effectively use online platforms and integrate digital tools into their teaching practices. This gap in professional development can impede teachers' ability to manage virtual classrooms and employ innovative teaching methods effectively. Furthermore, ensuring student engagement and addressing the digital divide are ongoing concerns, as the online format can exacerbate existing educational inequalities (Department of Education, 2019).

LITERATURE REVIEW

For many years, traditional education has set the value of a class with the time spent in classrooms (Wiyono, et, al, 2021). Yet, advances in online technology have enabled teaching and learning to take place anytime and anywhere with the emergence of online education as an alternative to face-to-face teaching (Baylen & Zhu, 2019; Russel & McCarron, 2019). As online education breaks down the barriers of time and place by offering independent and flexible education, it has become more common in order to meet the demands of the changing societies besides technological advances.



For instance, additional courses are required in addition to having a degree in many professions; education is not attributed to young people anymore and lifelong learning is promoted; cultural diversity has gained importance; life is no more limited to geographical boundaries; and many people spend most of their time at work (Mehrotra, Hollister & McGahey, 2001). Within this perspective, many institutions have been offering online courses either as supplementary to face-to-face classes or as an alternative to them (Baylen & Zhu, 2019).

According to Kapisia, et al (2020), online education is offered in asynchronous and / or synchronous ways depending on the nature of the subject, needs of the students, and desired level, type and dynamics of interaction in order to facilitate the learning that builds a bridge between teachers and students. Asynchronous learning in online education enables learners to access the materials regardless of time and place restrictions as long as the necessary equipment is available (Kung-Ming & Khoon-Seng, 2019; Perveen, 2019).

Immediacy is not required in this kind of learning as the relevant records are archived, which makes them accessible anytime (Kung-Ming & Khoon-Seng, 2019). It gives students time to think, search and reflect on the subject matter and give constructed responses by using higher order learning. In traditional education, some students may not participate in the lessons due to their shyness. However, asynchronous learning may reduce the stress of the student and promote participation since there is less stress than face-to-face interaction (Chester & Gwyne, 2018; Kung-Ming & Khoon-Seng, 2019; Perveen, 2019). Also, the fact that time and zone constraints are removed reinforces global participation.

In other words, asynchronous learning makes education accessible to people from different countries and people with different responsibilities by offering the opportunity of participation at their convenience (Mehrotra, et al, 2021). Video recordings, presentations, emails, web pages, blogs, handouts, articles can be included in asynchronous learning. On the other hand, Kung-Ming and Khoon-Seng (2009) explains synchronous learning as the online involvement of the parties at the same time in a virtual platform, which is similar to traditional classrooms with real time interaction and collaboration (Perveen, 2019).

Synchronous learning stops distance being a barrier with real time interactions by gathering people from different places at the same time. The presence of teacher and the students in the platform may increase motivation (Yamagata-Lynch, 2024). The teachers can observe the current progress of learners and propose immediate solutions to the problems besides foreseeing the possible problems (Kung-Ming & Khoon-Seng, 2019).

Research Questions

For a case study on the motivations and barriers of public-school teachers to online education, research questions should be designed to explore both the driving factors behind teachers' engagement with online learning and the obstacles they face. The following are the potential research questions in this case study:

1. What are the primary motivations for public-school teachers to adopt online education in their teaching practices?
2. How do public-school teachers perceive the effectiveness of online education compared to traditional face-to-face instruction in their teaching practices?
3. What specific sentiments do public-school teachers encounter when implementing online education, and how do these barriers affect their teaching practices?

METHODOLOGY

Research Design

In case study research, the design and procedure were meticulously crafted to provide an in-depth understanding of a specific phenomenon within its real-life context. The design began with the selection of a case or cases that were particularly relevant to the research question. For instance, in a study exploring the motivations and barriers of teachers in online education, a case could have been a particular educational institution, a specific group of teachers, or a distinct online teaching program (Mertens, 2020).

The procedure involved several key steps. Initially, the researcher conducted a thorough review of existing literature to frame the study and identify gaps in understanding. This was followed by the development of a detailed research plan, which included defining the case, formulating research questions, and selecting appropriate data collection methods.

Data collection in case study research typically involved multiple sources to ensure a comprehensive view. Methods such as semi-structured interviews, focus groups, and surveys were employed to gather qualitative data from participants. Observations and document analysis may have also been included to provide additional context and support the findings. For instance, interviews with teachers revealed personal insights into their experiences, while document analysis might have involved reviewing teaching materials and institutional policies.

Once data was collected, it underwent systematic analysis. The researcher organized and coded the data to identify patterns, themes, and key insights. This process often involved iterative rounds of data analysis to refine themes and ensure that the findings accurately reflected the complexities of the case. Triangulation, or



the use of multiple data sources and methods, was employed to enhance the validity and reliability of the results.

Research Participants

In this study, three (3) qualified teacher participants possessed relevant experience and expertise directly related to the case under study. This typically included a background in teaching the subject or grade level being investigated, as well as practical experience within the educational setting of interest. Their qualifications also encompassed advanced degrees or specialized training in areas pertinent to the research focus, such as curriculum development, instructional strategies, or educational psychology.

Participants demonstrated a willingness to actively engage in the research process, including providing candid feedback and reflecting critically on their practices. By selecting teacher participants who met these criteria, researchers ensured that the insights gathered were rooted in practical, informed perspectives. This approach enhanced the credibility and relevance of the study's findings, ensuring that the results were both meaningful and actionable.

Research Instrument

In case study research, a comprehensive research instrument was essential for gathering rich, detailed, and contextually relevant data. This instrument typically combined multiple methods to capture different dimensions of the phenomenon under investigation (Smith & Brown, 2019).

Data Analysis

Analyzing data in case study research required a methodical approach to identify patterns, themes, and insights from the gathered information. The process started with organizing and preparing the data, which involved transcribing interviews, coding observations, and compiling documents. Next, I performed data coding by identifying and labeling significant segments of data according to themes or categories pertinent to the research questions. This preliminary coding was then followed by thematic analysis, where similar codes were grouped into broader themes and patterns, creating a structured and coherent presentation of the findings.

I consistently compared data from different sources to ensure accurate and thorough interpretations. This involved triangulating information from interviews, observations, and documents to confirm findings and improve the reliability of the analysis. I interpreted the data within the specific context of the case, connecting findings to existing theories and literature. This interpretive stage aimed to provide a deep understanding of the case and address the research questions. Finally, I compiled the analyzed data into a comprehensive narrative or report, highlighting key insights, supporting conclusions, and discussing implications for both theory and practice. By conducting rigorous analysis, I ensured that the case study offered valuable and well-supported insights to the field (Creswell & Creswell, 2018).

RESULTS AND DISCUSSION

In this chapter, the implications and future directions of the study were revealed, focusing on the motivation of teachers in achieving high technological competency, the barriers posed by limited technological competency, and the sentiments of teachers in remote areas. The implications discussed how the motivation to enhance technological competency was driven by a desire for professional growth, improved student engagement, and the need to adapt to the increasing demand for digital education. Teachers who were motivated by these factors often sought out opportunities for training and development, contributing to the overall push toward digital transformation in education. The findings underscored the importance of fostering such motivations through professional development programs and institutional support to help teachers gain the skills needed for successful online education.

Implications

The implications of this study in relation to the motivation of teachers in achieving high technological competency can be linked to several educational theories, including constructivism by Jean Piaget. According to Piaget, learning is an active process where individuals build new knowledge based on their existing understanding. The study's findings highlight that teachers who are motivated to enhance their technological competency actively engage in acquiring new skills and integrating them into their teaching practices. This aligns with Piaget's notion of active learning, as teachers are not passive recipients of information but instead construct their knowledge through hands-on experience, trial and error, and problem-solving in a technological context. This approach to learning empowers teachers to adapt their teaching methods and become more effective in using digital tools, further strengthening their motivation to improve their technological skills.

Additionally, connectivism by George Siemens offers another framework for understanding the motivations of teachers toward technological competency. Connectivism emphasizes the role of networks and the flow of information in the learning process, asserting that knowledge is distributed across a network of connections and that learning occurs through the ability to navigate and make sense of this network. The findings from the study suggest that teachers' motivation to achieve high technological competency is fueled by their ability to access and utilize networks of information, resources, and professional communities.



Teachers who are motivated to increase their technological skills often engage in online communities, professional development courses, and collaborate with peers to expand their knowledge base. In this context, connectivism helps explain how teachers' learning is enhanced by their connections to resources and individuals within the educational technology landscape, reinforcing the importance of networks in fostering technological competency.

On the other hand, the barriers posed by teachers limited technological competency can be viewed through the lens of the Technology Acceptance Model (TAM), developed by Davis. TAM suggests that the perceived ease of use and perceived usefulness of a technology are critical factors in determining its acceptance and use. The study's findings indicate that many teachers struggle with technological barriers such as inadequate training, lack of resources, and insufficient support. These barriers reduce the perceived usefulness and ease of use of technology for teachers, which can lead to resistance or reluctance to adopt digital tools.

According to TAM, overcoming these barriers requires addressing teachers' perceptions of technology by ensuring that the tools provided are easy to use and offer clear, tangible benefits to their teaching practices. The implications suggest that providing proper training and demonstrating the practical advantages of technology can help increase teachers' acceptance and use of digital tools, ultimately improving their technological competency.

Furthermore, the sentiments of teachers in remote areas can also be analyzed through Piaget's constructivism. Teachers in these regions often face unique challenges, including limited access to technology and professional development opportunities. In remote areas, the lack of a supportive environment for technology integration can hinder the process of active learning and knowledge construction. Piaget's theory posits that social interaction and the availability of resources are key to cognitive development. Teachers in remote areas may feel isolated and disconnected from the broader educational community, which can limit their ability to construct new knowledge and enhance their technological competency. Therefore, the implications of the study highlight the need for targeted interventions that facilitate collaboration and provide remote teachers with opportunities for meaningful social interaction, access to resources, and professional learning communities.

The connectivism theory further informs our understanding of the experiences of teachers in remote areas. For teachers in these regions, access to networks and connections is often limited by geography and infrastructure. Siemens' theory underscores that learning is enhanced by the ability to connect with others and access information from diverse sources. The findings from the study show that teachers in remote areas may feel disconnected from professional networks and are often unaware of the latest technological advancements or best practices.

This lack of connection can lead to feelings of frustration and hinder their motivation to adopt technology in their teaching. The implications suggest that creating virtual networks or online communities for remote teachers could facilitate the flow of information, increase access to professional development opportunities, and provide the necessary support for these teachers to develop their technological skills.

Finally, the Technology Acceptance Model (TAM) can also be applied to the sentiments of teachers in remote areas. Davis' model proposes that perceived ease of use and perceived usefulness are critical in determining the acceptance of technology. Teachers in remote areas may have lower perceptions of the ease of use and usefulness of technology due to limited access to resources and training. Additionally, the technological infrastructure in remote areas may be inadequate, further reducing teachers' confidence in adopting digital tools. To address these challenges, the implications of the study suggest that initiatives to improve internet connectivity, provide tailored training, and increase the availability of user-friendly technologies would significantly enhance the perceived usefulness and ease of use, thereby improving technology acceptance among remote teachers and motivating them to build their technological competency.

Future Directions

The future directions of the study, in relation to the motivation of teachers in achieving high technological competency, suggest exploring deeper into the specific factors that drive teachers' desire to enhance their technological skills. Research could focus on understanding how intrinsic motivations, such as personal growth, intellectual curiosity, and the desire to improve student learning outcomes, contribute to teachers' engagement with technology.

Future studies could investigate the role of extrinsic motivations, such as recognition, career advancement, or institutional requirements, and how these motivations interact with intrinsic factors. Longitudinal research could track teachers' motivational shifts over time, analyzing how their commitment to improving technological competency evolves as they gain more experience and confidence. Such studies would provide valuable insights into the long-term impacts of motivation on teachers' professional development in the context of technological competency.

In relation to teachers limited technological competency as barriers, future directions of the study could explore the effectiveness of various professional development models in addressing these barriers. Research could focus on comparing traditional face-to-face training programs with online or hybrid learning options to identify which formats are most effective in overcoming technological challenges. Future studies could also examine the impact of differentiated training, where teachers receive tailored support based on their technological skill levels.



Moreover, research could investigate how schools and districts can create sustained support structures, such as ongoing workshops, mentorship programs, or peer-to-peer learning communities, that help teachers build and maintain their technological competencies. Exploring the role of administrative support and adequate resources in reducing barriers to technology integration would be crucial for identifying strategies that enable teachers to overcome obstacles in their technological journey.

Another future direction could focus on the sentiments of teachers in remote areas, which often face unique challenges in adopting and integrating technology into their teaching practices. Research could examine how teachers in remote areas perceive technology and its potential impact on their teaching and students' learning. Future studies might explore how geographical isolation, limited access to resources, and inconsistent internet connectivity influence teachers' attitudes toward technology and their ability to use digital tools effectively. In addition, understanding how teachers in these regions feel about the support they receive whether from school administrators, local governments, or professional communities could reveal how emotional and professional isolation affects their motivation. Further research could investigate how interventions designed specifically for remote educators, such as localized online training programs, mobile technology solutions, or offline resources, could alleviate these barriers and improve teachers' sentiments toward adopting technology.

Hence, exploring the role of community networks in remote areas could provide valuable insights. Teachers in remote areas often lack the peer support and professional networks that their urban counterparts benefit from. Future research could explore the potential for building stronger local or virtual communities of practice, where teachers can share experiences, resources, and strategies for overcoming technological challenges. By fostering a sense of community and connection, these networks could enhance motivation and create opportunities for collaborative problem-solving. Studies could also investigate the role of government and non-governmental organizations in facilitating these networks, ensuring that teachers in remote areas have access to the necessary tools, training, and support systems.

Future studies could also examine the impact of policy on teachers' technological competency in remote areas. Research could look into how national or local educational policies affect teachers' access to professional development, resources, and technology in these regions. Investigating the effectiveness of policy initiatives that aim to bridge the digital divide in education could provide insight into what strategies work and what challenges persist in remote areas. Future directions may include evaluating the success of government-funded programs or partnerships with tech companies that provide remote teachers with discounted or free technology and training. The study could also consider how policies that incentivize technology use, such as performance-based rewards or grants, affect teachers' motivation to build their technological competency.

Lastly, the long-term impact of technological competency on teaching quality and student outcomes in remote areas could be explored. Future research could investigate how improvements in teachers' technological skills influence their teaching practices, engagement with students, and overall teaching effectiveness in remote contexts. Studies could focus on how the integration of technology in the classroom affects student learning outcomes in under-resourced schools.

Research could examine the broader social and professional impacts on teachers in remote areas who gain higher technological competency, exploring how this affects their career advancement, professional identity, and job satisfaction. This type of research would offer valuable information on the systemic benefits of investing in teachers' technological competency, particularly in underserved regions.

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