

Art of Integration: Lived Experiences of Senior Teachers in Incorporating Technology into Classroom Instruction

Noreen I. Ale¹, Maedel Joy V. Escote²

Garciaville Child Development Center, Garcaville, Mankilam Tagum City, Philippines¹,

Graduate School Faculty, Assumption College of Nabunturan, Davao de Oro, Philippines²

DOI: <https://doi.org/10.47772/IJRISS.2026.100600356>

Received: 13 June 2026; Accepted: 18 June 2026; Published: 24 June 2026

ABSTRACT

This study explored the lived experiences of 10 senior teachers informants who shared their insights in integrating technology into classroom instruction. Employing a qualitative research design and a phenomenological approach, the study examined how senior teachers navigated the process of incorporating digital tools into their teaching practices. Specifically, it investigated their initial encounters, significant experiences, evolving teaching styles, emotional responses, challenges encountered, coping mechanisms, and the insights they gained throughout the process. Data were collected through in-depth, semi-structured interviews and analyzed using thematic analysis. The findings revealed that senior teachers' initial encounters with technology were characterized by mixed emotional responses, including anxiety, fear, uncertainty, and excitement. Teachers experienced various challenges such as limited digital skills, technical difficulties, lack of resources, and institutional constraints, which affected their confidence and instructional effectiveness. Despite these challenges, significant events such as ICT trainings, peer collaboration, the COVID-19 pandemic, and access to technological resources served as turning points in their journey of technology integration. To address these challenges, participants adopted several coping mechanisms, including continuous practice, self-directed learning, seeking peer support, attending professional development activities, and gradually integrating technology into their lessons. Over time, their teaching practices evolved into a balanced approach that combined traditional and digital methods, enhancing student engagement and understanding. The study also highlighted the importance of simple, accessible tools and purposeful integration aligned with learning objectives. The insights gained from the experiences of senior teachers demonstrated significant professional growth, marked by improved confidence, adaptability, and openness to continuous learning. The study concluded that effective technology integration requires sustained institutional support, access to resources, targeted professional development, and a collaborative learning environment. These elements are essential in empowering senior teachers to successfully adapt to technological advancements and enhance the quality of teaching and learning.

Keywords: technology integration, senior teachers, digital literacy, teaching practices, professional growth, phenomenological study

INTRODUCTION

Senior teachers continue to experience difficulties in integrating digital tools into their teaching practices. It was found that many senior teachers struggle with adaptation and had limited prior exposure, reduced digital competence, and lower confidence in technology (Khan et al., 2026). These challenges contribute to gaps in effective technology use and highlight the persistent issue of lower performance among senior teachers in incorporating technology into classroom instruction (Putriyani et al., 2024).

In Cambodia, senior teachers have limited prior exposure to digital tools and the encounter steep learning curve to effectively adopt new technologies (Be, 2024). Similarly, in Saudi Arabia, senior teachers struggle to integrate technology-based approaches, such as flipped classroom models (Dalbani et al., 2022). In Pakistan, senior teachers have limited incorporation of basic tools like PowerPoint and YouTube (Nguyen & Pham, 2022).

In the Philippines, specifically in Baungon Districts, Division of Bukidnon, senior teachers had limited digital exposure, unfamiliarity with modern platforms, and reduced confidence in using technological tools (Celeste & Osias, 2024). Similarly, in Nueva Ecija, senior teachers encountered difficulties in incorporating technology and limited access to digital resources (Olipas & Alegado, 2025). In Quezon Province, senior teachers also encounter low digital competence, resistance to change, and insufficient technical support (Lagos & Nabos, 2023).

In the Nabunturan District, Division of Davao de Oro, I saw the challenges of teachers in integrating technology into classroom instruction due to limited digital resources, insufficient training, and inadequate institutional support. During on the pre interview with one senior teacher, the lack of necessary tools and proper guidance made her transition from traditional teaching to technology-enhanced instruction difficult. These challenges affected the effectiveness in delivering lessons, influenced student learning outcomes, and led to inconsistencies in teaching approaches when incorporating technology into the classroom. While studies have explored challenges to technology adoption, such as poor infrastructure and rigid educational systems (Pelila et al., 2022), and broader aspects of technology integration (Ifinedo & Kankaanranta, 2021), there is limited research on the lived experiences of senior teachers. Specifically, gaps exist in understanding the personal, professional, and contextual factors that affect their transition to technology-based instruction, hence, there is a need to conduct this study.

Research Questions

This study aimed to discover the lived experiences of senior teachers in incorporating technology into classroom instruction. Specifically, it sought to answer the following questions:

1. What are the strategies used by senior teachers in incorporating technology to classroom instruction?
2. What are the experiences of senior teachers in incorporating technology to classroom instruction?
3. What are the challenges of senior teachers in incorporating technology to classroom instruction?
4. What are the coping mechanisms of senior teachers in incorporating technology to classroom instruction?
5. What are the insights of senior teachers in incorporating technology to classroom instruction which can be shared to other teachers?

Scope and Delimitation

The focus of this phenomenological study was to explore the lived experiences of public elementary senior teachers on the integration of technologies in their classroom instruction in the Nabunturan District, Davao de Oro. Ten (10) senior teachers from Sta. Maria Elementary School, Cabidanan Elementary School, Antequera Elementary School, Manat Elementary, and Matilo Elementary School were selected as participants through purposive sampling. These schools were chosen due to their accessibility, diverse educational contexts, and relevance to the objectives of the study. The study was conducted during the school year 2024–2025. In-depth interviews were utilized to gather qualitative insights into the teachers' experiences, challenges, and strategies in adopting technology for classroom instruction. The study was limited to senior teachers in public elementary schools within the Nabunturan District and did not include other school personnel or private school teachers.

METHODOLOGY

This chapter presents the research design, research participants, role of the researcher, data sources, data collection procedures, data analysis, the trustworthiness of the study, and ethical considerations.

Research Design

This study adopted a phenomenological research design to explore the lived experiences of senior public elementary teachers in integrating technology into their classroom instruction. A qualitative approach was

considered appropriate because it enabled the researcher to gain an in-depth understanding of participants' perspectives, behaviors, and interpretations within their natural setting. Through this approach, the study provided deeper insights into how senior teachers encountered challenges, applied different strategies, and adapted to the use of technology in their teaching practice (Creswell, 2013). Specifically, the study utilized a phenomenological design to examine and describe the essence of the participants' lived experiences related to the phenomenon under investigation. This approach allowed the researcher to capture the genuine voices of senior teachers and to better understand their personal and professional journeys as they transitioned from traditional teaching practices to technology-enhanced instruction (Grossheim, 2021).

Role of the Researcher

This study employed a phenomenological research design, in which the role of the researcher was guided by the framework of Fink (2000). This framework outlines seven essential roles in qualitative research: thematizing, designing, interviewing, transcribing, analyzing, verifying, and reporting. In this study, the researcher systematically followed these roles to ensure a rigorous and structured approach to understanding the lived experiences of senior teachers transitioning to technology-integrated instruction. The researcher began with the thematizing phase, where the research problem was clearly defined, guiding questions were developed, and the appropriate methodological approach was identified. Key themes such as technology adoption, instructional changes, and personal adaptation to digital tools were established to frame the inquiry.

In the subsequent stages, the researcher designed the study by identifying appropriate participants and selecting data collection methods, particularly in-depth interviews. During the interviewing stage, semi-structured interviews were conducted using open-ended questions to allow participants to fully express their experiences. These interviews were then transcribed accurately to preserve authenticity. The researcher proceeded with data analysis using thematic analysis to uncover patterns and insights, followed by verification procedures such as member checking, triangulation, and peer review to ensure credibility. Finally, the reporting stage involved organizing and presenting the findings in a structured manner, linking them with relevant theories on technology adoption and teacher adaptation (Fink, 2000).

Research Participants

The study included ten (10) senior public elementary school teachers from Sta. Maria Elementary School, Cabidanan Elementary School, Manat Elementary School, Antequera Elementary School, and Matilo Elementary School. These institutions were public elementary schools located in the Nabunturan District, Nabunturan, Davao de Oro. The study utilized purposive sampling to select ten (10) senior public elementary school teachers from the Nabunturan District. This sampling method allowed the researcher to intentionally select participants who possessed specific characteristics relevant to the study. Phenomenological research typically involves a small sample size, ranging from 5 to 15 participants, to ensure in-depth exploration of lived experiences (Park & Kim, 2022).

The inclusion criteria required participants to be senior public elementary school teachers aged 50 to 65 years, with at least five years of teaching experience, and active engagement in using technology during the 2024–2025 school year. Additionally, participants had to be currently assigned within the Nabunturan District. Exclusion criteria ensured that only qualified individuals participated, excluding those who lacked sufficient teaching experience, had not integrated technology in instruction, or were not assigned within the district. These criteria ensured that the data collected were relevant and aligned with the study's objectives.

Data Gathering Procedure

The researcher strictly adhered to ethical guidelines throughout the study by undergoing an ethical review process in compliance with established standards. Informed consent was obtained from all participants to ensure that they were fully aware of the study's objectives, procedures, and potential risks. Confidentiality and privacy were prioritized, with all information handled securely. The researcher also sought approval from the research adviser and panelists to ensure that the study met academic and methodological standards. Following this, formal

permission was secured from the Office of the Division of Davao de Oro to conduct the research in public elementary schools within the Nabunturan District.

After obtaining all necessary approvals, the researcher used purposive sampling to select ten qualified participants. Face-to-face in-depth interviews were conducted at times and locations convenient for the participants, with each session lasting approximately 30 to 45 minutes. Open-ended questions encouraged participants to share their experiences, challenges, and strategies related to technology integration. The collected data were then transcribed, coded, and analyzed to identify emerging themes. This process enabled the researcher to uncover meaningful insights into how senior teachers adapted to and utilized technology in their instructional practices.

Data Analysis

The study employed thematic analysis as a qualitative method to examine patterns within the data. This method involved a systematic process of coding and categorizing responses from participants to identify recurring themes related to technology integration. According to Creswell (2013), qualitative data analysis follows a structured process where data collection and analysis occur sequentially. In this study, the analysis began with organizing and preparing the collected data, including interview recordings and notes, followed by transcription to ensure accuracy and completeness.

After transcription, the researcher immersed themselves in the data by reviewing and familiarizing themselves with the participants' responses. Coding was then performed to identify significant statements related to technology integration, challenges encountered, and the impact on instructional practices. These codes were grouped into broader categories, leading to the development of major themes concerning adoption, challenges, and best practices. This systematic approach allowed for a comprehensive understanding of the experiences of senior teachers and ensured the transparency and credibility of the findings (Creswell, 2013).

Trustworthiness of the Study

Trustworthiness refers to the quality, authenticity, and reliability of qualitative research findings (Shenton, 2004). It ensures that the interpretations accurately reflect the participants' lived experiences. In this study, trustworthiness was established through four key criteria: credibility, confirmability, dependability, and transferability. Credibility was achieved through strategies such as triangulation, member checking, and peer debriefing, which helped validate the accuracy of the findings. These techniques ensured that the data truly represented the experiences and perspectives of senior teachers (Stanley & Robertson, 2024).

Confirmability was ensured by maintaining a detailed audit trail that documented the research process, including data collection and analysis decisions. Dependability was established through consistent and systematic procedures, allowing future researchers to replicate the study in similar settings. Transferability was addressed by providing rich and detailed descriptions of the research context, including the school environment, technological tools, and instructional practices. These measures strengthened the overall rigor and credibility of the study, ensuring that the findings were both reliable and applicable to similar educational contexts (Shenton, 2004).

Ethical Considerations

Ethical considerations were a central component of this research, ensuring the protection of participants' rights and well-being. The study incorporated several ethical dimensions, including social value, informed consent, participant vulnerability, and risk assessment. The research provided valuable insights into how senior teachers adapted to technology, contributing to the development of effective teaching strategies. Participants were fully informed about the purpose, procedures, and ethical considerations of the study before voluntarily agreeing to participate. Special attention was given to participants who may have felt vulnerable due to their limited experience with technology.

Additional ethical principles included ensuring privacy and confidentiality, maintaining fairness or justice, and promoting transparency throughout the research process. Data were collected in secure environments, and participants' identities were protected in all reports. The researcher also demonstrated appropriate qualifications and ensured the availability of adequate facilities, such as interview venues and recording devices. These ethical safeguards ensured that the research was conducted responsibly and that the findings contributed meaningfully to educational practice and policy while respecting the dignity and rights of all participants.

RESULTS AND DISCUSSIONS

The structured themes and emerging themes served as the bases for explaining and broadening the discussion of the findings in this study. Each theme was discussed in relation to previous literature to determine how the lived experiences, challenges, coping mechanisms, and insights of senior teachers in incorporating technology into classroom instruction aligned with or extended existing knowledge.

Ways to Describe the First Encounters with Technology in the Classroom. The findings revealed that senior teachers described their first encounters with technology in the classroom through varied emotional and experiential expressions, reflecting their personal adjustments and reactions to change. These initial experiences were commonly characterized as challenging and nerve-racking, overwhelming, intimidating, and stressful, while at the same time being exciting, rewarding, motivating, and eye-opening. Senior teachers also expressed feelings of nervousness and curiosity, fear of failure, and pressure as they began using unfamiliar digital tools. These experiences required them to make necessary adjustments in their teaching practices and mindset.

These findings are supported by previous studies which explain that senior teachers often experience emotional and technical difficulties when integrating technology due to limited exposure and digital competence. Junger et al. (2023) describe technology integration as both challenging and transformative. Similarly, Amaniampong and Hartmann (2023) highlight that senior teachers commonly experience anxiety, fear, and hesitation when using unfamiliar tools. In connection, Pelila et al. (2022) further emphasize that teachers often feel overwhelmed due to sudden exposure to multiple digital platforms. In addition, Shemileva et al. (2023) note that technical and instructional demands may create stress and pressure. Despite these challenges, Jamil et al. (2023) and Ariyanti and Yunus (2023) found that teachers eventually recognize the benefits of technology in enhancing engagement and learning. Moreover, Ancho and Arrieta (2021) and Sackstein et al. (2022) emphasize that continuous exposure, reflection, and willingness to learn enable teachers to gradually adapt.

Significant Events that Shaped the Journey in Integrating Technology into Teaching. The findings revealed that the journey of senior teachers in integrating technology into teaching was shaped by several critical experiences, reflecting their gradual adjustment and growth in adapting to change. These experiences included trainings and collaboration, the impact of the COVID-19 pandemic, receiving television and laptops at school, attending ICT workshops and LAC sessions, the implementation of blended learning, peer mentoring, the demand for digital report submissions, and the shift toward technology-aided instruction. These events served as important turning points that influenced their confidence, skills, and attitudes toward technology use. While some experiences were externally driven, such as institutional requirements and pandemic-related changes, others were supported by professional development and peer interactions, which encouraged learning and adaptation.

These findings closely aligned with the claim of Vanek (2022) which emphasized that structured training programs play a crucial role in helping teachers systematically integrate technology into instruction. Similarly, Rofi'i et al. (2023) highlighted the importance of collaboration and peer interaction in strengthening teachers' technological skills. Similarly, Pelila et al. (2022) also reported that the sudden transition to digital learning forced teachers to adapt quickly despite limited preparation. In the same way, De Jesus et al. (2023) noted that teachers experienced challenges due to abrupt changes in instructional delivery. Access to resources, such as receiving television and laptop at school, is supported by Gamboa (2022), who emphasized that availability of devices significantly influences teachers' ability to integrate technology effectively. Moreover, Eden et al. (2024) stressed the importance of infrastructure investment to ensure successful technology integration. In addition,

Lindfors et al. (2021) concluded that continuous professional development improves teachers' digital competence. Similarly, Sacramento et al. (2021) highlighted that collaborative learning sessions such as LAC promote knowledge sharing and confidence building.

As supported by Rao and Deb (2021), blended learning approaches help teachers combine traditional and digital strategies effectively. Additionally, Zhang (2023) emphasized that technology should be aligned with pedagogical goals. In connection, Pihlainen et al. (2021) argued that collaborative learning environments empower teachers by providing continuous support and guidance. Similarly, Kalinga and Ndibalema (2023) found that peer mentoring programs enhance teachers' confidence and motivation in using technology.

Ways of Teaching Styles Evolve with the Use of Educational Technology. The findings revealed that the teaching styles of senior teachers evolved through the intentional blending of traditional and modern instructional approaches, reflecting their adaptability and openness to change. These evolving practices included combining conventional methods with technology, using traditional drills followed by digital games, presenting lessons through chalkboard explanations before integrating digital presentations, and facilitating group discussions supported by video-based examples. Rather than abandoning familiar teaching strategies, senior teachers demonstrated flexibility by modifying and enhancing their existing practices to incorporate digital tools. This approach allowed them to maintain structure and clarity while improving student engagement and understanding, highlighting their ability to gradually adjust and innovate within their comfort zones.

These findings are supported by Looysen and Rachid (2022) who argued that technology should complement existing teaching methods rather than function independently. Similarly, Hutasuht and Harahap (2024) emphasized that digital tools should be aligned with pedagogical objectives to ensure meaningful learning. Consequently, Abel et al. (2022) also explained that teachers' pedagogical beliefs influence how technology is integrated, particularly when combining traditional instruction with interactive strategies. As highlighted by Jiang (2023), technology-supported teaching promotes active learning when used to connect theoretical knowledge with real-life applications, supporting participants' use of videos and discussions to deepen understanding. In addition, Al-Sindi et al. (2023) found that interactive digital tools increase student engagement and participation. This is further supported by Putriyani et al. (2024), who emphasized that technology enables personalized and interactive learning experiences that enhance comprehension and retention. Moreover, Mthembu et al. (2023) noted that integrating technology requires a shift in teaching methodology, particularly for experienced teachers accustomed to traditional approaches. Likewise, Zhang (2023) stressed that technology integration should be purposeful and aligned with instructional goal.

Emotional Experiences while Using Technology in Teaching. The findings revealed that senior teachers experienced a wide range of emotional responses while integrating technology into their teaching, reflecting their personal journey of adjustment and growth. These emotions included feeling challenged, overwhelmed yet motivated, nervous, increasingly interested, anxious and pressured, as well as experiencing a mix of fear and excitement, stress and fulfillment, hesitation, and eventually frustration turning into satisfaction. Initially, senior teachers encountered anxiety, stress, hesitation, and self-doubt due to unfamiliarity with digital tools and the demands of adapting to new teaching approaches. However, as they gained experience and became more familiar with technology, these negative emotions gradually shifted toward increased confidence, motivation, and a sense of accomplishment. These findings are consistent with Amaniampong and Hartmann (2023) who explained that senior teachers often experience anxiety, hesitation, and fear when exposed to unfamiliar digital tools. Similarly, Ogodo and Simon (2021) noted that senior teachers frequently show apprehension and uncertainty when transitioning from traditional to technology-based teaching. Furthermore, Pelila et al. (2022) emphasized that teachers felt overwhelmed during the transition to digital learning environments due to increased workload and lack of preparation. In the same way, De Jesus et al. (2023) found that limited digital skills often lead to stress and emotional pressure among teachers.

Digital Tools or Platforms Commonly Use in Teaching Practices. The findings revealed that senior teachers commonly utilized a range of accessible and practical digital tools in their teaching practices, reflecting their preference for simplicity, familiarity, and functionality. These tools included PowerPoint and YouTube, KAHOOT!, Google Forms, Messenger, offline educational applications, as well as Word documents and short video presentations. Senior teachers selected these platforms based on their ease of use and their capacity to

support lesson organization, student engagement, communication, and assessment. Despite limitations in digital skills and infrastructure, their choices demonstrate adaptability and resourcefulness, as they gradually integrated technology in ways that were manageable, effective, and responsive to the needs of their classrooms.

These findings are supported by Zhou et al. (2021) which highlighted that experienced teachers often rely on conventional practices combined with simple digital tools, such as presentations and videos. Similarly, Kiprono (2023) found that teachers with less exposure to technology prefer tools that are structured and easy to manage. Moreover, Al-Sindi et al. (2023) emphasized that multimedia tools, including videos and presentations, enhance student engagement and understanding. Likewise, Kumbo et al. (2023) noted that gamified tools improve learner engagement and motivation.

Ways to Modify Lesson Plans to Effectively Integrate Technology. The findings revealed that senior teachers modified their lesson plans through a structured and intentional approach, reflecting their adaptability, creativity, and growing confidence in integrating technology. These modifications included aligning activities with learning objectives, incorporating online and simple digital tasks, and selecting appropriate digital tools to support instruction. Senior teachers also demonstrated careful planning by inserting technology at specific stages of the lesson, allocating time for digital activities, and focusing on manageable tasks such as one digital activity per lesson. The inclusion of digital materials in lesson preparation further highlighted their effort to integrate technology meaningfully, showing their commitment to continuous improvement and effective instructional practices despite challenges.

The findings closely linked to the idea of Zhang (2023) which explained that effective technology integration requires careful alignment between digital tools and learning outcomes. Similarly, Hutasuhut and Harahap (2024) explained that technology should enhance rather than replace teaching practices. Furthermore, Sebulen (2023) found that senior teachers often struggle with planning ICT-integrated lessons but gradually improve through structured modifications. In addition, Zhang (2023) and Jiang (2023) emphasized that digital tools should promote engagement and meaningful learning. Moreover, Mdhlalose and Mlambo (2023) noted that technological challenges often require teachers to prepare contingency plans. Similarly, Navarro (2024) emphasized that teachers adapt their lesson planning strategies based on available resources and limitations. Finally, Rao and Deb (2021) highlighted that blending traditional and digital approaches in lesson planning leads to more effective instruction.

Problems Encountered in Integrating Technology in the Classroom. The findings revealed that senior teachers encountered numerous barriers in integrating technology into classroom instruction, reflecting both internal struggles and external challenges in their teaching environment. These difficulties included slow and limited internet connection, technical glitches, limited availability of devices, learners' difficulty in using technological tools, issues with maintaining student focus, and the challenge of balancing traditional teaching methods with technology use. In addition, senior teachers faced limitations in digital skills, unequal access to devices among learners, frequent power interruptions, fear of making mistakes, and hesitation or shyness in seeking assistance. These challenges often resulted in disruptions in lesson delivery and increased pressure in managing classroom activities.

These findings are strongly supported by Gamboa (2022) and Javier (2021) who also identified poor internet connectivity and unreliable systems as major causes of interrupted lessons. Similarly, Ramos et al. (2024) noted that unstable internet and power issues frequently disrupt classroom instruction. In connection, Derder et al. (2023) explained that malfunctions in devices, software errors, and system failures significantly hinder teaching efficiency and increase teacher stress. Furthermore, as emphasized by Shemileva et al. (2023), technical interruptions can divert student attention and negatively influence engagement. The issue of limited available devices and learners' unequal access to devices is supported by Navarro (2024), who highlighted the lack of sufficient digital resources in schools as a major barrier to effective technology use. Similarly, Khasawneh and Shawaqfeh (2024) emphasized that inequitable access to technology among students creates participation gaps.

Technical Difficulties Commonly Encounter. The findings revealed that senior teachers commonly encountered several technical difficulties in integrating technology into their classroom instruction, reflecting

the practical challenges they face in real teaching situations. These difficulties included slow and unstable internet connection, software malfunctions, power interruptions, outdated equipment, device connectivity issues, audio and video playback problems, limited access to functioning devices, as well as system crashes and unfamiliar interfaces. Such experiences often led to frustration, delays in lesson delivery, and decreased confidence in using technology. These challenges highlight that technology integration is not solely dependent on teachers' skills but is strongly influenced by the reliability of technical infrastructure, requiring patience and adaptability on the part of senior teachers.

These findings are Ramos et al. (2024) which identified unstable internet connection as a major obstacle. Furthermore, Derder et al. (2023), who explained that system failures and unresponsive applications reduce instructional efficiency and contribute to teacher frustration. On the other hand, Navarro (2024) noted that inadequate ICT infrastructure, including old devices and inconsistent electricity supply. This limitation is also reflected in Eden et al. (2024), who emphasized the importance of reliable infrastructure in sustaining digital learning environments.

Ways of Problem in Digital Skills Affect the Ability to Use Technology in Teaching. The findings revealed that limitations in digital skills significantly affected the ability of senior teachers to integrate technology effectively, reflecting their internal struggles and adjustments in adapting to new tools. These challenges manifested in reduced confidence and instructional effectiveness, as well as difficulty in using advanced applications. Senior teachers also experienced fear and anxiety when learning unfamiliar technologies, which led to avoidance of complex tools and hesitation in exploring new resources. Moreover, they often required additional effort, time, and assistance to prepare technology-integrated lessons, which sometimes limited their creativity and willingness to innovate. These constraints highlight the importance of digital competence, demonstrating that personal readiness, confidence, and continuous learning are essential in achieving effective technology integration among senior teachers.

These findings align with De Jesus et al. (2023) which explained that insufficient exposure to digital tools results in gaps in confidence and competence. Similarly, Fernández-Batanero et al. (2021) noted that low digital competence increases preparation time and stress. Furthermore, Linde et al. (2023) highlighted that senior teachers often struggle to adopt new technologies due to limited prior experience. This hesitation is also explained by Ogoto and Simon (2021), who found that older educators tend to feel anxious and uncertain when required to adapt to digital teaching environments. In addition, Başal (2023) emphasized that lack of adequate digital training causes teachers to avoid complex tools and rely only on familiar applications.

Institutional or Systematic Barriers Hinder the Integration of Technology. The findings revealed that senior teachers encountered several institutional and systemic barriers that hindered effective technology integration, reflecting the constraints of the environment in which they operate. These challenges included lack of devices and unstable internet connection, limited technical support, insufficient trainings and professional opportunities, inadequate school resources, large class sizes, inconsistent access to digital tools, and limited budget allocation. Such conditions contributed to feelings of frustration and difficulty among senior teachers, despite their willingness to adapt. These barriers highlight that the struggle to integrate technology is not merely a matter of individual capability but is strongly shaped by external limitations, emphasizing the reality that senior teachers must navigate complex systemic constraints while striving to improve their practice.

These findings are supported by Gamboa (2022) and Javier (2021) who identified lack of devices and unreliable internet connectivity as major barriers in public schools. In connection, Navarro (2024) highlighted that inadequate ICT infrastructure and insufficient equipment hinder teachers' ability to fully integrate digital tools into instruction. Moreover, Karroum and Elshaiekh (2023) emphasized that insufficient technical assistance delays problem resolution and discourages effective technology use. In the same way, Ali (2023) pointed out that lack of institutional support reduces teachers' ability to maximize digital tools. In addition, Mastul et al. (2023) found that insufficient professional development programs prevent teachers from developing necessary digital competencies. In addition, insufficient school resources and support is consistent with findings by Wang (2023), who stressed that successful technology integration requires access to resources, infrastructure, and institutional assistance. This is further supported by Mercader and Gairín (2020), who emphasized that lack of funding and support from institutions significantly limits the adoption of educational technology.

Ways to View Expectations Placed Regarding Technology Use. The findings revealed that senior teachers perceived expectations regarding technology integration in varied and evolving ways, reflecting their personal adjustments and inner dispositions toward change. These expectations were viewed as necessary but also as a source of pressure, initially creating feelings of uncertainty and tension. At the same time, senior teachers began to see these expectations as both a challenge and an opportunity for growth. Their perspectives gradually shifted as they developed motivation, encouragement, and increased confidence in their abilities.

These findings are consistent with Wang (2023) which emphasized that technological expectations in schools are increasingly viewed as essential due to the evolving nature of education. However, Mercader and Gairín (2020) explained that such expectations can also create pressure when teachers lack adequate resources or training. Furthermore, Şahin and Dursun (2022) identified that senior teachers often perceive technological demands as both difficult and beneficial. Similarly, Ancho and Arrieta (2021) emphasized that continuous exposure to technology fosters motivation and encourages teachers to improve their competencies. In addition, Amaniampong and Hartmann (2023) noted that teachers gradually shift their perception of technology from being a source of stress to a valuable tool for improving teaching effectiveness. Likewise, Sacramento et al. (2021) emphasized that supportive environments and collaborative practices help teachers build confidence over time.

Personal Efforts Made to Improve Digital Literacy. The findings revealed that senior teachers employed various personal strategies to improve their digital literacy, reflecting their determination, self-discipline, and willingness to grow despite initial difficulties. They demonstrated initiative by seeking assistance, participating in ICT trainings and webinars, and engaging in continuous practice of digital tools. Their efforts also showed curiosity and openness, as they explored simple applications, experimented independently, and familiarized themselves with basic technological functions. These personal efforts highlight the proactive, persevering, and lifelong learner mindset of senior teachers in adapting to technological changes.

These findings are supported by Biales (2021) highlighted that teachers who seek assistance from others and engage in collaborative learning are more likely to overcome fear and confusion when using digital tools. Similarly, Kalinga and Ndibalema (2023) emphasized that peer support and mentoring significantly improve teachers' confidence and competence. Moreover, Lindfors et al. (2021) found that participation in professional development activities such as trainings and webinars enhances teachers' digital competence. In addition, Fransson and Norman (2021) emphasized that continuous practice and self-directed exploration are key strategies for improving technological skills. Moreover, Ancho and Arrieta (2021) highlighted that teachers who engage in continuous and self-paced learning, including the use of online tutorials, are able to gradually adapt to technological changes. Conversely, Linde et al. (2023), who emphasized that mastering digital tools gradually helps reduce overwhelm and increases confidence.

Ways of Peer Support and Collaboration Helps in Overcoming Technological Challenges. The findings revealed that peer support and collaboration played a significant role in helping senior teachers overcome technological challenges, reflecting their developing sense of trust, openness, and willingness to learn from others. Through collaboration, senior teachers experienced reduced worries and anxiety, gradually building confidence and feeling encouraged in their learning process. They expressed becoming more comfortable seeking advice, which eased pressure and fostered a supportive environment for growth. These interactions motivated them to persist despite difficulties, helped them feel more prepared, and enabled them to solve problems more efficiently.

These findings are supported by Pihlainen et al. (2021) who explained that collaborative learning communities foster confidence and reduce anxiety among teachers. Similarly, Kalinga and Ndibalema (2023) highlighted that peer mentoring enhances teachers' confidence and motivation. Moreover, peer collaboration and structured support systems help teachers gain practical knowledge and reduce the pressure associated with learning new technologies (Sacramento et al., 2021). This is further reinforced by Lee et al. (2023) which found that collaborative engagement among teachers facilitates problem-solving and promotes shared learning. Similarly, peer mentoring provides step-by-step guidance, making technology easier to learn (Gcabashe, 2024). Furthermore, Linde et al. (2023) explained that sharing experiences with peers helps normalize difficulties and reduce emotional barriers.

Helpful Professional Development Opportunities. The findings revealed that senior teachers benefited from various professional development opportunities that supported their growth in integrating technology, reflecting their willingness to learn and adapt despite challenges. These opportunities, including trainings, workshops, webinars, LAC sessions, online courses, self-paced learning, and collaborative meetings, provided both structured and flexible avenues for continuous improvement. Through these experiences, senior teachers demonstrated persistence, openness, and commitment to personal growth as they gradually enhanced their digital skills, gained practical experience, and refined their instructional approaches in integrating technology.

These findings are supported by Lindfors et al. (2021) who highlighted that participation in training programs and workshops significantly enhances teachers' professional digital competence. Similarly, Amir (2023) emphasized that effective professional development must include hands-on and practical training experiences. Moreover, Sacramento et al. (2021) emphasized that collaborative learning platforms such as LAC sessions allow teachers to share experiences, develop strategies, and build confidence. This form of shared learning also reinforces the idea that technology integration is not an isolated process but a collective effort among educators (Lee et al., 2023).

Advice Offered to Others Struggling with Technology Integration. The findings revealed that senior teachers offered meaningful, experience-based advice rooted in their personal journeys of adaptation and growth. Their suggestions reflected qualities such as patience, perseverance, humility, and openness to learning. They emphasized the importance of being patient and allowing oneself time to learn gradually, recognizing that mastery does not happen instantly. Senior teachers also highlighted the value of humility in seeking help from others, showing a willingness to learn from colleagues and younger educators.

According to Ancho and Arrieta (2021), teachers who embrace lifelong learning are more likely to adapt successfully to technological changes. Similarly, Lindfors et al. (2021) emphasized that continuous professional development allows teachers to gradually build confidence and skills. In connection, Kalinga and Ndibalema (2023) explained that peer mentoring and seeking assistance from colleagues significantly enhance teachers' ability to use technology. In the same way, Pihlainen et al. (2021) emphasized that collaborative environments reduce stress and make learning more manageable. Moreover, Fransson and Norman (2021) found that self-directed learning strategies, such as regular practice and gradual exploration, are effective in improving digital literacy. Similarly, Linde et al. (2023) noted that learning at one's own pace reduces anxiety and increases confidence. In addition, Zhang (2023) emphasized that technology must be used purposefully to support learning objectives rather than for its own sake. This perspective ensures that technology enhances instructional effectiveness instead of complicating teaching processes (Mdhlalose & Mlambo, 2023).

Best Practices Developed through Experiences. The findings revealed that senior teachers developed a range of best practices through experience, including preparing and testing devices in advance, using simple and appropriate digital tools, using interactive tools, exploring different digital resources, integrating technology gradually, having backup activities, and aligning digital tools to student needs. These findings are supported by Zhang (2023) which highlighted that technology must be aligned with instructional objectives and carefully planned to ensure meaningful use. Similarly, Hutasuhut and Harahap (2024) stressed that technology should enhance instruction rather than complicate it. On the other hand, Al-Sindi et al. (2023) found that interactive technologies significantly increase student participation and engagement. Likewise, Jiang (2023) emphasized that diverse digital resources help improve learning experiences and connect lessons to real-world applications. In connection, Mthembu et al. (2023) noted that experienced teachers adjust to technology through step-by-step integration.

Reflection on the Journey of Adapting Technological Changes. The findings revealed that senior teachers' reflections on their journey in adapting to technological changes were marked by transformation and growth. These findings are supported by existing literature which emphasizes that technology integration contributes to professional growth among teachers (Junger et al., 2023). Similarly, Ancho and Arrieta (2021) emphasized that continuous engagement with technology promotes lifelong learning and skill development. Moreover, Linde et al. (2023), argue that senior teachers gradually develop acceptance of technology through repeated exposure. In addition, Pelila et al. (2022) reported that teachers initially experience difficulty and stress but later develop greater confidence and satisfaction in using technology.

IMPLICATIONS FOR PRACTICE

Based on the findings of the study, the following implications for practice are offered.

On Ways to Describe the First Encounters with Technology in the Classroom. To address the diverse emotional responses experienced by senior teachers during their initial encounters with technology, school principals, in coordination with instructional supervisors and ICT coordinators, should establish structured orientation and emotional support mechanisms. School heads should ensure that introductory ICT programs include not only technical guidance but also psychosocial preparation to help teachers manage anxiety, fear of failure, and uncertainty.

On Significant Events that Shaped the Journey in Integrating Technology into Teaching. To strengthen the impact of significant experiences such as trainings, collaboration, and external demands, school leaders should institutionalize structured professional development opportunities that combine training, mentoring, and practice. School heads should promote peer mentoring, ICT workshops, and collaborative learning environments, while division offices should design programs that integrate experiential learning and practical application to support sustained technology adoption.

On Ways of Teaching Styles Evolve with the Use of Educational Technology. To support the evolution of teaching styles, instructional leaders should promote blended learning approaches that integrate traditional teaching methods with digital tools. School principals and supervisors should provide demonstration teaching, coaching sessions, and LAC activities that focus on effective instructional strategies combining lectures, discussions, and multimedia resources. These practices should be embedded in instructional supervision plans to ensure sustained development.

On Emotional Experiences while Using Technology in Teaching. To address emotional challenges, school administrators should implement teacher wellness and support programs that focus on stress management, resilience, and confidence building. School heads should create a safe and supportive environment where teachers can openly share experiences and challenges. Mentoring programs should incorporate emotional support to help teachers transition from anxiety and frustration to confidence and fulfillment.

On Digital Tools or Platforms Commonly Use in Teaching Practices. To enhance effective use of digital tools, school leaders should encourage the utilization of simple, accessible, and user-friendly platforms that align with teachers' competencies. ICT coordinators should provide training focused on practical applications of commonly used tools such as PowerPoint, videos, and assessment platforms. Instructional leaders should ensure that tools are used purposefully to support lesson objectives.

On Ways to Modify Lesson Plans to Effectively Integrate Technology. To strengthen instructional planning, teachers should be guided in aligning digital activities with learning objectives and competencies. School leaders should provide technical support and training on lesson design that incorporates technology in a structured and purposeful manner. Emphasis should be placed on preparing materials in advance, including backup plans, and gradually integrating digital tools to ensure smooth lesson delivery.

On Problems Encountered in Integrating Technology in the Classroom. To address common challenges such as connectivity issues, limited resources, and classroom management concerns, schools should strengthen technical support systems and ensure the availability of resources. School heads should implement contingency plans and provide teachers with strategies for adapting instruction during disruptions. Monitoring systems should be established to provide timely assistance.

On Technical Difficulties Commonly Encounter. To minimize technical barriers, school administrators should improve ICT infrastructure, including reliable internet access, functioning devices, and stable power supply. ICT coordinators should be available to provide technical assistance and troubleshooting support. Regular maintenance and upgrading of equipment should be prioritized.

On Ways of Problem in Digital Skills Affect the Ability to Use Technology in Teaching. To address limitations in digital skills, schools should implement continuous professional development programs that focus on building basic to advanced digital competencies. Instructional leaders should provide scaffolded learning opportunities, allowing teachers to develop skills gradually while building confidence.

On Institutional or Systematic Barriers Hinder the Integration of Technology. To overcome systemic barriers, school and division leaders should strengthen infrastructure, ensure equitable resource distribution, and increase funding for ICT programs. Policies should be developed to support consistent access to devices, internet connectivity, and training opportunities. Collaboration between schools and local government units should also be encouraged.

On Ways to View Expectations Placed Regarding Technology Use. To manage expectations effectively, school leaders should communicate realistic and achievable standards for technology integration. Instructional supervisors should provide supportive feedback, focusing on teachers' progress rather than perfection. Expectations should be framed as opportunities for growth rather than sources of pressure.

On Personal Efforts Made to Improve Digital Literacy. To reinforce self-directed learning, school leaders should encourage teachers to engage in continuous practice, independent exploration, and reflective learning. Recognition systems should be established to acknowledge teachers' efforts in improving their digital skills.

On Ways of Peer Support and Collaboration Helps in Overcoming Technological Challenges. To sustain collaborative learning, school principals should formalize mentoring systems and encourage peer collaboration through structured LAC sessions and team teaching. Schools should promote a culture of shared learning, where teachers exchange ideas, strategies, and solutions.

On Helpful Professional Development Opportunities. To strengthen professional growth, school leaders, together with other key stakeholders such as the Department of Education (DepEd), school heads, ICT coordinators, local government units (LGUs), and community partners, should provide access to diverse professional development opportunities including trainings, webinars, workshops, and online courses. These stakeholders play a crucial role in ensuring that adequate resources, guidance, and continuous support are made available to teachers. In addition, follow-up support and mentoring should be implemented to ensure that the skills and knowledge gained from these programs are effectively applied in classroom practice, ultimately enhancing teachers' competence and confidence in integrating technology.

On Advice Offered to Others Struggling with Technology Integration. To operationalize teachers' insights, orientation and mentoring programs should emphasize patience, continuous learning, collaboration, and flexibility.

On Best Practices Developed through Experiences. To sustain effective practices, school leaders, together with other stakeholders such as DepEd officials, ICT coordinators, and fellow teachers, should document and share best practices developed from experiences in technology integration. These may include the preparation of instructional materials, the use of simple and accessible digital tools, gradual integration of technology into lessons, and reflective teaching practices.

On Reflection on the Journey of Adapting Technological Changes. To promote long-term professional growth, school administrators should emphasize lifelong learning, adaptability, and reflective practice.

IMPLICATIONS FOR FUTURE RESEARCH

Since the study was limited to the lived experiences of senior teachers in integrating technology into classroom instruction within selected public elementary schools, the following implications for future research are considered. First, future research may be conducted by selecting a larger group of senior teachers within the same district to further validate and deepen the findings of the present study. Expanding the number of participants may provide a broader understanding of the varied experiences, challenges, and coping mechanisms of teachers in technology integration. Second, similar studies may be conducted in other school districts or

divisions to determine whether senior teachers in different contexts encounter comparable experiences, challenges, and strategies in integrating technology into teaching. Next, since the present study focused on public elementary schools, future research may be undertaken in private schools or other educational settings to examine whether differences in institutional resources, support systems, and technological infrastructure influence teachers' experiences in technology integration. Finally, the current study primarily considered the perspectives of senior teachers; future research may include other stakeholders such as school heads, ICT coordinators, instructional supervisors, learners, and parents to provide a more comprehensive and holistic understanding of technology integration in education.

CONCLUDING REMARKS

The integration of technology among senior teachers in classroom instruction revealed more than the adoption of digital tools; it highlighted a transformative journey marked by emotional adjustments, pedagogical shifts, and continuous professional growth. While the process initially involved challenges such as anxiety, limited digital skills, and technical constraints, it gradually led to increased confidence, adaptability, and openness to innovation in teaching practices. The findings emphasize that successful technology integration goes beyond technical competence. It requires a balance between traditional and modern teaching approaches, supported by continuous learning, reflective practice, and purposeful use of digital tools aligned with learning objectives.

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