

Transitioning Pedagogies: Baby Boomer Educators' Adaptation from Chalkboard to New Technology

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Abstract

This study examined Baby Boomer educators' lived experiences as they transitioned from traditional chalkboard-based instruction to technology-integrated teaching amid rapid digital transformation in education. Anchored in the Theory of Reasoned Action (TRA), the Technological Pedagogical Content Knowledge (TPACK) framework, and the Technology Acceptance Model (TAM), the study explored how educators made meaning of technological change and how perceived usefulness and ease of use shaped their adaptation. Using a qualitative, transcendental phenomenological design, data were gathered through semi-structured interviews supported by field notes, classroom observations, and document review. Respondents were Baby Boomer educators (ages 61–79) selected through purposive sampling from institutions in Quezon City, Bulacan, and Paranaque. The findings indicate varied baseline digital proficiency, but consistent willingness to learn, with educators gradually adopting tools such as PowerPoint, Canva, Moodle, Google Classroom, Kahoot, and Quizziz. Participants described the transition as initially difficult due to limited time, unfamiliarity with software, and anxiety about technical issues, while systemic barriers such as inconsistent internet access and unequal device availability also constrained implementation. Despite these challenges, educators reported coping through self-directed learning, peer collaboration, and available institutional or external support, and they perceived technology integration as improving lesson delivery, reducing some administrative burdens, and increasing student engagement and participation. The study concludes that bridging infrastructural gaps and strengthening continuous professional support are essential to sustaining inclusive technology integration. The study aligns with SDG 4 – Quality Education through its focus on teacher capability-building and effective digital pedagogy, and with SDG 9 – Industry, Innovation and Infrastructure by highlighting the role of connectivity and digital systems in educational transformation. In sustainability terms, the study contributes to educational and institutional sustainability by emphasizing that technology-enabled learning becomes sustainable only when supported by training, equitable access, and collaborative cultures that prevent widening generational and resource-based inequalities.

Keywords: Baby Boomer educators; digital transformation; phenomenology; technology integration; Technology Acceptance Model (TAM); Technological Pedagogical Content Knowledge (TPACK); Theory of Reasoned Action (TRA)

1. Introduction

Education systems have undergone a rapid shift from analog, teacher-centered instruction to digitally mediated, student-responsive pedagogy, intensifying expectations for educators to adopt learning management systems, virtual platforms, and interactive technologies. This transition is particularly consequential for Baby Boomer educators (born 1946–1964) whose professional formation was grounded in chalkboard-based routines and linear instructional models. Using a phenomenological lens, the present study synthesizes what is known about generational pedagogies, technology integration, institutional support, and educator adaptation, while foregrounding the underexplored “transitional phase” of change. It situates the inquiry within global digital transformation pressures, Philippine-local realities, and theory-driven explanations of technology acceptance and pedagogical integration, culminating in a rationale for examining Baby Boomers' lived experiences and meaning-making as they navigate professional, emotional, and instructional reorientation.

Over the past decades, classrooms have shifted from chalkboards, overhead projectors, and printed materials to interactive whiteboards, tablets, learning management systems, and multimedia instruction, redefining educators from primary knowledge sources to facilitators operating in dynamic digital environments. For Baby Boomer educators, this is not merely learning new tools but a deep reconfiguration of teaching philosophy, classroom management, and professional identity. Guided by a phenomenological approach, the study focuses on how Baby Boomer educators make meaning of their transition from analog to digital pedagogy and why examining their lived experience can support more inclusive approaches to educational change. According to Miles, 2017 gaps were identified as, knowledge gap, practical knowledge conflict,

and the methodological gap, which frame the need to examine what has been lacking in understanding Baby Boomers' technology use, contradictions between practice and prevailing research focus, and the limited attention to the transition process itself.

Literature describes Baby Boomer educators as commonly oriented toward structured, teacher-centered instruction emphasizing discipline, authority, and mastery through repetition, often aligned with behaviorist teaching models rather than constructivist, student-centered approaches (Governors State University, n.d.). As digital technologies expanded, the transition demanded both technical competence and pedagogical reframing, especially under pressures associated with remote and hybrid modalities accelerated by crisis conditions (Singer, 2021). Global and comparative studies emphasize that ICT integration can support transformation and address inequalities but requires teacher training and institutional capacity-building, underscoring the centrality of support systems in successful adoption (Timoteou et al. (2022); Stella Timotheou et al. (2022)). In system-level transformation discussions, blended and adaptive strategies are highlighted as reshaping teaching methods and learning experiences (Bui Trong Tai and Nguyen Truong Son (2023); Truong and Diep (2023)).

A recurring theme is the psychological and practical burden of adaptation among older cohorts. Surveys and demographic findings suggest many older adults feel overtaken by technology while also demonstrating increasing internet use and engagement with digital services (American Equity; Pew Research Center). In education-specific accounts, challenges commonly include technological anxiety, reduced confidence, physical constraints, perceived irrelevance near retirement, limited access to training, resource scarcity, generational gaps, and ageism, all of which can depress adoption and integration (FasterCapital, 2023; Meirani et al. (2022); Epstein & Haselberger, 2010). Yet the literature also documents coping and enabling strategies: self-paced learning and independent exploration (Meirani et al. (2022)), peer collaboration and "reverse mentorship" (Governors State University emphasizes; Nzama, L. (2024)), participation in tailored professional development (Huyler (2016)), online communities for sharing practices (Al-Emran, M. and Shaalan K. (2021)), and personal investment in devices for low-pressure practice (Al-Harbi, S. and Al-Awidi, H. (2023)). Attitudinal openness and willingness to learn are repeatedly positioned as decisive for sustaining adaptation (Vallesteros et al. (2020)). Pedagogical modernization is described through blended learning, gamification, and microlearning, with blended learning presented as responsive to diverse needs and engagement in the Filipino classroom setting (A. S. Santos (2019)). Student-level impacts attributed to successful integration include increased engagement through multimedia and interactive instruction, strengthened digital literacy, improved collaboration via platforms, differentiated learning supports, and modeling of intergenerational learning and growth mindset. At the same time, research warns that digital integration can produce burnout, distractions, and inequality amplification when access, planning, and support are insufficient (Consoli et al. (2023); UNESCO (2023); UNESCO GEM Report (2023)). Broader empirical work reinforces that teacher perceptions of barriers often center on insufficient training, heavy workload, and technophobia, with the generational gap influencing adoption patterns (González-Sanmamed et al. (2020)). Leadership and institutional climate matter: digital leadership can positively influence teacher integration (Al-Harbi and Al-Awidi (2022)), and ecological approaches emphasize alignment between individual needs and organizational infrastructure (Zhao and Frank (2003)). Cross-generational differences in comfort and risk-taking suggest Baby Boomers may value technology but require more support to reach proficiency comparable to younger faculty (Culp-Roche et al. (2020)). Local and context-relevant studies highlight Baby Boomer educators' experience of uncertainty and fear during sudden online transition while also demonstrating resilience through help-seeking and technology investment (Petalla (2022)). Workplace learning research suggests structured nonformal learning supports technology problem-solving more reliably than informal learning-by-doing alone (Galliat (2020)). Studies on aged instructors similarly show adaptation through assistance from colleagues, family, and students (Riconalla et al. (2022)). Tailored ICT-focused PD is emphasized as effective when aligned with teachers' beliefs and practices (Padillo, G. G., Manguillimotan, R. P. et al. (2023)). Related strands on technology usability in older adults emphasize preferences for simplified interfaces and design features that reduce cognitive load, which can increase acceptance (Computers in Human Behavior (2021)). Discussions also note perceived usefulness as a key driver of sustained use of platforms for social connection and, by extension, technology adoption behavior in older populations. Emerging technologies, including wearables and AI, are presented as shaping engagement and personalization, while raising planning, access, data privacy, and ethics concerns (Khosravi et al. (2021); U.S. Department of Education's report (2023); Lindín et al. (2023); Ringgold (2025)).

Globally, digital innovation is widely positioned as a mechanism to enhance education quality, inclusion, and accessibility, with the COVID-19 period intensifying the pace and visibility of digital transformation pressures and infrastructural gaps (Singer, 2021; UNESCO GEM Report (2023)). International research highlights that transformation depends not only on the availability of tools but also on institutional readiness, resource allocation, leadership, and sustained capacity-building for teachers (Timoteou et al. (2022); Lindín et al. (2023); Al-Harbi and Al-Awidi (2022)). At the same time, global warnings emphasize that technology-first solutions can deepen inequities when connectivity and devices are uneven, reinforcing the importance of context-sensitive implementation (UNESCO (2023)). In the Philippine context, literature notes limited local research that specifically examines Baby Boomer educators' lived experiences of technological integration, particularly in

settings such as Quezon City, Parañaque, and Bulacan, and in institutions such as Culliat National High School, Paranaque National High School, Towerville National High School in Bulacan, and Best Link College of the Philippines in Quezon City. Local studies cited emphasize that Baby Boomer educators faced abrupt shifts to online learning with limited preparation, yet showed resilience through help-seeking and personal investment, underscoring the need for preparedness and structured support (Petalla (2022); (Petalla,M.B, 2022)). This study anchors its interpretation in the Theory of Reasoned Action (TRA), the Technological Pedagogical Content Knowledge (TPACK), and the Technology Acceptance Model (TAM) to explain why and how Baby Boomer educators adopt, integrate, or resist digital tools. TAM, developed by Fred Davis (1989), emphasizes Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as determinants of attitude, behavioral intention, and actual technology use, making it especially relevant for educators who may initially perceive digital tools as complex or unnecessary; evidence supports PU and PEOU as predictors of older teachers' intentions to use educational technology (Teo (2011); Scherer, Siddiq, and Tondeur (2019)). TRA proponents Martin Fishbein and Icek Ajzen (1975) further explain how intention is shaped by attitudes and subjective norms, capturing social and cultural influences that may affect Baby Boomers' willingness to adopt technology. TPACK, established by Mishra and Koehler in 2006 and extending Lee Shulman's PCK, frames effective teaching with technology as the integration of content knowledge, pedagogical knowledge, and technological knowledge, emphasizing that adoption alone is insufficient without meaningful instructional integration. It also supports triangulation across teacher reflections, observed practice, and instructional artifacts, and it has been used to evaluate technology-focused professional development and career-stage differences in integration (Vo, Zhu, and Diep (2020)). The literature also invokes Diffusion of Innovations Theory to interpret varied adoption patterns (e.g., early adopters vs. laggards) and highlights the role of institutional support, peer influence, and perceived benefits in shaping adoption trajectories, including in studies of teacher uptake of digital platforms (Teo and Zhou (2019)).

Despite extensive discussion of technology integration in education, notable gaps persist regarding Baby Boomers' transition from chalkboard-based teaching to technology-integrated pedagogy. According to Miles, 2017, the literature reveals knowledge gaps about this cohort's specific experiences and competence-building, practical knowledge conflict where research attention privileges Millennials or Gen Z while overlooking older educators' lived experience, and methodological gaps where studies contrast "traditional vs. modern" but rarely investigate the transitional phase itself. The reviewed literature further notes limited local Philippine research on Baby Boomer educators' experiences in settings such as Quezon City, Parañaque, and Bulacan and within specific schools, while also identifying underexamined emotional and psychological dimensions (e.g., anxiety, resistance, resilience, motivation), limited longitudinal insight into sustained pedagogical evolution, and insufficient attention to intergenerational collaboration and support systems that can facilitate or hinder adaptation. These gaps justify a phenomenological exploration that prioritizes meaning-making and captures both personal and professional transformation during a period of significant educational change.

This study most directly aligns with SDG 4 – Quality Education because it examines educator capability-building and pedagogical adaptation needed to sustain effective teaching amid digital transformation, including the role of training, institutional support, and inclusive strategies that help experienced educators remain effective in modern learning environments (Consoli et al. (2023); Lindin et al. (2023); UNESCO GEM Report (2023)). It also aligns with SDG 9 – Industry, Innovation and Infrastructure by addressing how educational systems require infrastructure readiness, digital tools, and structured innovation support (e.g., LMS, emerging technologies, and AI-related developments) to enable transformation in teaching practices (Truong and Diep (2023); U.S. Department of Education's report (2023)). The study further connects to SDG 10 – Reduced Inequalities insofar as digital transitions can widen or reduce inequities depending on access to connectivity, devices, and support, and the literature explicitly highlights inequality risks and the need for inclusive institutional capacity-building (Timoteou et.al (2022); UNESCO (2023)). Finally, the emphasis on intergenerational mentorship and support networks situates the study within collaborative capacity-building consistent with SDG 17 – Partnerships for the Goals, particularly through reciprocal mentorship and institutional-community support structures (Governors State University emphasizes; Nzama,L.(2024)).

The study contributes to educational sustainability by clarifying how experienced educators can remain pedagogically effective and professionally engaged as instructional environments evolve, supporting continuity of quality teaching across generational shifts. It contributes to technological sustainability by emphasizing that technology integration is sustainable only when adoption is supported by usability, confidence-building, and aligned professional development rather than tool deployment alone (Computers in Human Behavior (2021); Padillo,G.G, Manguillimotan ,R.P Et.Al ,(2023)). It contributes to institutional sustainability by documenting how leadership, policy coherence, and support systems shape whether technology transitions become stable practices or recurring disruptions, including risks of burnout and inequality expansion when implementation is poorly supported (Zhao and Frank (2003); Consoli et al. (2023); UNESCO (2023)). Finally, it contributes to community and socio-cultural sustainability by illuminating intergenerational learning dynamics—how older educators' resilience and adaptation can strengthen professional community ties, reduce isolation, and foster collaborative cultures that enable sustained innovation without marginalizing veteran teachers (Riconalla et al. (2022); Petalla (2022)).

2. Materials and methods

2.1 Research Design

The study employed a qualitative, transcendental phenomenological design to capture and interpret the essence of Baby Boomer educators' transition experiences, including emotional, cognitive, and behavioral dimensions of adaptation. Phenomenology was selected to focus on how educators made meaning of this significant pedagogical shift and to enable a systematic examination of individual narratives for shared patterns and unique elements that characterize transitional pedagogies. The design was implemented with methodological rigor, emphasizing participant voice and contextual depth to support practice- and policy-relevant insights.

2.2 Research Setting

The study was conducted in educational institutions that had experienced a shift from traditional chalkboard-based teaching to technology integration, covering both private and public settings in Quezon City, Bulacan, and Paranaque. The identified research sites included Culliat National High School, Tower Ville National High School, Paranaque National High School, and Best Link College of the Philippines, selected for their relevance to the transition context and accessibility of qualified participants.

2.3 Respondents

The respondents were eight educators from the Baby Boomer generation (ages 61 to 79) with firsthand experience transitioning from traditional chalkboard-based teaching or learning to the integration of modern technological tools in education. Participants were drawn from the identified institutions, including three from Best Link College of the Philippines, two from Tower Ville National High School, one from Paranaque National High School, one from Culliat National High School, and one from World City College. Purposive sampling was used to intentionally select participants aligned with the research objectives; According to Creswell, purposive sampling is a non probability sampling technique where the researcher intentionally selected participants based on specific characteristics or criteria relevant to the research questions. Eligibility required membership in the Baby Boomer cohort, direct experience with the transition from chalkboard-based instruction to technology-integrated teaching, and affiliation with educational institutions during the transitional period. Participants were identified through institutional networks, colleague/peer referrals, and organizational records, then approached face-to-face and provided a consent letter explaining the study's purpose and significance. Sample size followed the principle of data saturation, ending when no new or significant themes emerged, ensuring both depth and manageability of qualitative exploration.

2.4 Research Instruments

Data collection relied primarily on a semi-structured interview guide composed of predetermined questions aligned with the research objectives while remaining flexible to pursue emergent themes. The interview format supported open-ended narration of experiences, thoughts, and emotions related to the transition, with field notes used to capture contextual details and non-verbal cues. To strengthen contextual understanding and support triangulation, data sources also included classroom observation notes focusing on technology use in practice and document review of instructional materials, professional development records, and institutional policies related to technology integration.

2.5 Data Collection

Triangulation was applied to enhance credibility and depth, with in-depth semi-structured interviews as the primary method. Interviews lasted approximately 60 to 90 minutes, were conducted either in person or virtually depending on participant preference and availability and were audio-recorded with consent; some sessions also involved video recording. Interview locations varied based on participant convenience, including a participant's residence and public venues in Quezon City such as a mall and dining establishments, and one participant was provided a copy of the research questions personally. Classroom observations were conducted to capture naturalistic evidence of technology use, educator-student interaction, and classroom management strategies, while document analysis reviewed instructional and institutional materials to contextualize participants' transition experiences. Audio recordings were transcribed verbatim, observational notes were organized systematically, and participants were given the opportunity to review and validate transcripts to confirm accuracy and authenticity of the recorded accounts.

2.6 Data Analysis

Data were analyzed through thematic analysis to identify, interpret, and synthesize patterns within participants' accounts. The analytic process involved immersion in the data through repeated reading, systematic coding of responses, identification and refinement of themes, clear naming and definition of themes, and integration of thematic results with the research objectives. The study also applied Moustakas' (1994) phenomenological analysis method, including Epoche (Bracketing) to set aside biases, Horizontalization to treat statements with equal value, Clustering of Meanings to group significant statements into meaning units, Textural Description to describe what participants experienced, Structural Description to describe how the experience occurred in context, and Essence Synthesis to generate a composite account of

the fundamental nature of the transition experience; analysis also referenced organizing responses according to Moustakas structure and Van Manen. To strengthen trustworthiness, the study addressed credibility, dependability, transferability, and confirmability. Credibility was supported through member checking and prolonged engagement via in-depth interviewing and rapport-building, including transparency about recordings. Dependability was reinforced through an audit trail documenting protocols and analytic decisions. Transferability was supported through detailed contextual description, and confirmability was reinforced through reflexivity and external peer review to ensure interpretations were grounded in participant data rather than researcher assumptions. Reflexivity was maintained through recognition of the researcher's positioning and continuous self-reflection to reduce undue influence on interpretation.

2.7 Ethical Considerations

Ethical safeguards were integrated throughout the study, beginning with informed consent that clearly explained the study's purpose, procedures, and participants' rights, including voluntary participation and the right to withdraw at any point without penalty. Confidentiality was supported by replacing personal identifiers with pseudonyms and securing all digital and physical data to prevent unauthorized access. Interviews were conducted in a respectful, supportive environment to minimize discomfort, and the study reported compliance with institutional ethical standards and review by the relevant ethics review board.

3. Results and Discussion

3.1. Main Findings on Technology Transition Among Baby Boomer Educators

3.1.1 Participant context and thematic organization of findings

The findings were drawn from seven educators across secondary and higher education settings who varied in age, years of teaching experience, institutional context, and levels of institutional support. Their accounts were organized into central themes describing technology adoption and integration, personal transition experiences, challenges encountered during digital teaching, and the perceived effects of classroom technology on students and learning outcomes. The study frames these findings through a phenomenological lens that emphasizes understanding lived experience through participants' first-person meaning-making. Phenomenology centers on the direct, first-person experience of individuals (van Manen, 1990; Moustakas, 1994), and the discussion highlights the importance of bracketing assumptions to allow participants' perspectives to emerge authentically (Moustakas, 1994). Consistent with this approach, the analysis is described as a structured process of interpreting experience in a way that prioritizes participants' descriptions and the essence of what they lived through, with reference to step-by-step procedures discussed by Creswell (2013).

3.1.2 Familiarity with digital technology and baseline proficiency

The results indicate that educators demonstrated varying levels of digital proficiency shaped largely by generational differences. Senior educators commonly began with limited prior exposure to digital tools and initially relied on traditional instructional practices, while at least one participant was described as naturally more tech-savvy, reflecting generational variation in technological fluency. Across participants, willingness to learn was evident, with many gradually becoming more familiar with tools through assistance, practice, and self-initiated efforts. In discussion, this pattern reflects a transition that was not purely technical but also personal and identity-related, as educators adjusted long-established routines and redefined how they performed their roles in a changing learning environment. The narratives emphasize resilience, particularly among senior educators who sought support and engaged in self-directed learning rather than remaining fixed in traditional methods.

3.1.3 Classroom technologies adopted in teaching

The findings show that participants adopted a range of classroom technologies, most commonly using PowerPoint for presenting lessons, alongside laptops and mobile phones for instructional preparation and delivery. They also reported using institutional systems such as Learning Management Systems, and supplementary tools including Canva for editing, Kahoot, and Microsoft Office, with variation in the breadth of tools used depending on experience and context. The discussion suggests that these technologies were valued because they improved lesson delivery and enabled more engaging presentation formats, allowing teachers to organize content visually and introduce interactive elements that supported participation. The chapter also indicates that differences in institutional setting influenced adoption patterns, with secondary educators leaning toward foundational tools for basic subject delivery, while higher education faculty tended to use more advanced platforms to support more interactive instruction.

3.1.4 Experiences during the transition from traditional to digital teaching

The results describe the transition as initially difficult for most participants, particularly because they were accustomed to traditional classroom routines and had limited time to learn new platforms. Many educators reported struggling with adjusting to new tools and systems at first, but later became more capable and comfortable as they practiced, received help, and gradually absorbed technology into their teaching. In discussion, the transition is portrayed as especially demanding during the COVID-19 pandemic, which accelerated the need for remote and technology-supported learning. Over time,

participants' accounts shift from early difficulty toward adaptation, indicating that sustained exposure and support contributed to their ability to integrate technology into instruction despite a steep learning curve.

3.1.5 Challenges encountered and coping strategies

The results show that educators faced both systemic and personal challenges during digital adaptation. Systemic barriers included inconsistent internet access and insufficient device availability, especially in under-resourced contexts, while personal challenges included unfamiliarity with software and anxiety about resolving technical problems during instruction. Despite these barriers, participants described coping through collaboration with peers, seeking technical assistance, and using external support resources, including forms of government support that helped address resource gaps. The discussion underscores that these challenges shaped the pace and confidence of adoption but did not prevent educators from progressing toward technology use. The chapter emphasizes resilience and collaboration as key mechanisms that helped educators persist, particularly when institutional support was uneven and when educators needed immediate solutions to practical classroom problems.

3.1.6 Effects of technology utilization on students and learning outcomes

The findings indicate that participants perceived technology as producing positive classroom effects, including increased student interest, engagement, and participation. Educators reported that digital tools supported more dynamic and interactive instruction, improved access to learning materials, and contributed to more inclusive learning experiences. Technology use was also described as helping lesson delivery and reducing some administrative burdens, while tools such as PowerPoint, Canva, Moodle, Google Classroom, Kahoot, and Quizziz were highlighted as helpful for engagement. In discussion, these outcomes are interpreted as evidence that technology integration can transform classroom dynamics toward more student-centered learning environments when teachers are able to apply tools meaningfully. The chapter frames the perceived improvement in engagement as a key indicator that the transition—while difficult—resulted in instructional benefits that motivated continued use and learning among educators.

3.2 Implications

The study identifies both theoretical and practical implications arising from the findings. Theoretically, the chapter emphasizes adaptability as central to understanding technology integration in education and highlights reciprocal learning dynamics where educators and students provide mutual support and knowledge-sharing. Practically, it points to the need for comprehensive professional development to build teachers' competence and confidence, and it emphasizes the importance of addressing infrastructural inequalities by improving access to devices and reliable internet connectivity. In discussion, these implications position technology adoption as not only a technical process but also a sociocultural and organizational one that depends on institutional readiness and collaborative learning environments. The chapter argues that strengthening support systems—through training, infrastructure, and collaborative practices—can reduce generational divides and make technology integration more equitable and sustainable.

3.3 Limitations

The results identify key constraints affecting the study's scope and generalizability, including the small number of participants and the reliance on qualitative, self-reported accounts. The chapter notes that these factors may limit representation of diverse experiences across regions and institutions and may introduce subjective bias tied to personal interpretation. In discussion, the limitation statement supports the need for future work that includes broader participation and additional approaches to corroborate emerging patterns. The chapter suggests that expanding the sample and incorporating quantitative data could strengthen validation of the trends observed in these narratives.

3.4 Reflections

The chapter's reflective section reports that the participants' narratives highlighted resilience and collaboration as central to navigating digital transition challenges, while also emphasizing the importance of institutional and community support. It reiterates that technology can enhance engagement and inclusivity, but that bridging systemic gaps remains necessary for successful implementation. In discussion, the reflection reinforces the broader value of documenting educators' lived transition experiences as a basis for designing more responsive support initiatives. The chapter presents these insights as useful for bridging traditional and modern pedagogical practices while sustaining inclusive, technology-enabled learning environments.

4. Conclusion & Recommendations

The study concludes that integrating digital technologies has substantially reshaped teaching practices and learning experiences, and that Baby Boomer educators—despite generational gaps and limited prior exposure—demonstrated resilience by adopting digital tools through self-directed learning and professional support amid persistent barriers such as poor internet connectivity and unequal access to devices; overall, technology use (e.g., PowerPoint, Canva, Moodle, Google Classroom, and Kahoot) was reported to enhance lesson delivery, reduce administrative burdens, and increase student engagement, underscoring the need to address systemic constraints to strengthen inclusive and effective learning

environments. The study recommends that traditional educators transition to technology through deliberate, steady measures by starting with simple tools that reinforce existing practices (e.g., presentation tools, digital worksheets/quizzes, and educational videos), ensuring technology is directly aligned with instructional goals, participating in continuous hands-on professional development with follow-up support, learning collaboratively through peer mentoring and shared lesson planning, gradually adopting more student-centered digital activities (e.g., online discussions, interactive quizzes, and group projects), seeking administrative and technical support for time, connectivity, devices, and troubleshooting, and routinely reflecting on what worked, what challenges occurred, and how technology affected student engagement to guide ongoing improvement. The study is limited by its reliance on responses from only seven participants, which may not represent broader experiences across regions and institutions, and by its exclusive use of qualitative self-reported data that may reflect individual bias; future research is recommended to include a larger and more diverse sample and incorporate quantitative data to validate observed trends and patterns.

Compliance with ethical standards

This study complied with ethical standards for qualitative research involving human participants. Prior to data collection, the purpose, procedures, and expected duration of participation were clearly explained, and informed consent was obtained from all participants. Participation was voluntary, and participants were informed of their right to decline answering any question or to withdraw from the study at any time without penalty. Confidentiality and privacy were maintained by removing personal identifiers, assigning pseudonyms, and limiting access to interview recordings, transcripts, and related documents to the researcher only; all files were stored securely and used exclusively for academic purposes. Interviews were conducted in a respectful manner to minimize discomfort, and the study avoided harm by ensuring that participants' responses were treated with sensitivity and reported in aggregate or anonymized form. Findings were presented honestly and accurately, and all supporting literature was properly acknowledged through appropriate citation.

REFERENCES

- Abildinova, A., Sadykova, G., & Zhaparova, R. (2023). The impact of digital tools in transforming high school education: A systematic review. *Education and Information Technologies*, 28(1), 589–608. <https://doi.org/10.1007/s10639-022-11000-x>
- Al-Emran, M., & Shaalan, K. (2021). A systematic review of the Technology Acceptance Model in educational contexts. *Education and Information Technologies*, 26(2), 147–175. <https://doi.org/10.1007/s10639-020-10307-0>
- Al-Harbi, S., & Al-Awidi, H. (2022). The influence of school principals' digital leadership on teachers' technology integration during the COVID-19 pandemic in Kuwait. *Education and Information Technologies*, 27, 12345–12367. <https://doi.org/10.1007/s10639-021-10845-6r>
- Creswell, [initial(s) missing]. (2021). [Title missing]. [Publisher/source missing].
- Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003. <https://doi.org/10.1287/mnsc.35.8.982>
- González-Sanmamed, M., Sangrà, A., & Muñoz-Carril, P. C. (2020). University teachers' perceptions of barriers to the integration of digital technologies in higher education. *Educational Technology Research and Development*, 68(2), 749–771. <https://doi.org/10.1007/s11423-019-09706-y>
- Habeshian, S. (2023, September 7). Tech schooling after COVID “super-charged” education inequality, UNESCO says. *Axios*.
- Huang, F., Teo, T., & Scherer, R. (2021). Investigating the acceptance of digital textbooks: A study on university students' behavioral intentions and the moderating role of gender. *International Journal of Educational Technology in Higher Education*, 18(1), 1–13. <https://doi.org/10.1186/s41239-021-00255-4>
- Khosravi, S., Bailey, S. G., Parvizi, H., & Ghannam, R. (2021). *Learning enhancement in higher education with wearable technology* (arXiv:2111.07365). arXiv. <https://doi.org/10.48550/arXiv.2111.07365>
- Pen, P., & Morrell, E. (2024). Technology use among late-career educators in Cambodia: A case study of perceptions and challenges. *International Journal of Educational Research*, 125, Article 102050. <https://doi.org/10.1016/j.ijer.2024.102050>
- Ringgold, J. (2025, April 25). MPS bond: We're teaching today's students in yesterday's classrooms. *Midland Daily News*.
- Teng, F., & Wang, Z. (2021). Understanding student engagement with educational technology in the EFL classroom: Comparing learning management and social networking systems. *The Asia-Pacific Education Researcher*, 30(3), 203–214. <https://doi.org/10.1007/s40299-020-00522-5>
- Wilkes, M., et al. (2020). *Use of digital technology in education: Literature review*. Department for Education, South Australia.