International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Technology Integration in Basic Education: Teachers' Experiences, Emotions, and Coping Strategies

Aileen Leisha V. Corey[1], James L. Paglinawan[2]

Author Information:
[1]Department of Education, Division of Valencia City, Bukidnon, Philippines

[2]Central Mindanao University, Musuan, Bukidnon, Philippines

Correspondence:
aileenleisha.corey@deped.gov.ph

Article History:

Date Received: October 20, 2026
Date Revised: November 3, 2026
Date Accepted: November 11, 2026
Date Published: November 22, 2026

DOI: https://doi.org/10.67903/ijroms0603

Document ID: 2026IJROMS0603

Recommended Citation:
Corey, A. L. V. & Paglinawan, J. L. (2026). Technology Integration in Basic Education: Teachers' Experiences, Emotions, and Coping Strategies. International Journal of Research on Multidisciplinary Studies, 1(10), 688-700. https://doi.org/10.67903/ijroms0603

Abstract. Technology integration has become an expectation in basic education, yet teachers work with uneven access to devices, internet connectivity, technical assistance, and professional development. Existing studies have examined technology use, technostress, or coping mostly within single subject areas, small groups, or pandemic-related contexts, and few have explored teachers' experiences, emotions, and coping strategies together across elementary, junior high school, and senior high school levels within one school setting. This study explored the experiences, emotional responses, coping strategies, and recommendations of public school teachers in the Department of Education Division of Valencia City, Bukidnon, during School Year 2026–2027. A qualitative descriptive-phenomenological design was used. Nineteen teachers (two elementary, nine junior high school, and eight senior high school) from two public schools were purposively selected. Data were gathered through semi-structured interviews, audio recordings, and field notes, with member checking after transcription, and were analyzed through six-phase thematic analysis. Code accumulation showed that the last four interviews produced no new codes. Five themes emerged: technology integration as an engaging but context-dependent practice, emotional ambivalence amid technical uncertainty, adaptive professional growth, resilient and collaborative coping, and sustainable, context-sensitive integration. Participants reported excitement, motivation, and satisfaction when technology engaged learners, and anxiety, frustration, and stress when connectivity, devices, or support failed. They coped by preparing backup and offline materials, practicing tools beforehand, asking colleagues for help, attending trainings, and reflecting on lessons, and most reported that these strategies lowered their stress and strengthened their confidence. The findings indicate that teachers' emotional experience of technology integration depends on infrastructure, technical support, and school-level collaboration as much as on individual skill. Teachers recommended reliable internet, functional devices, dedicated technical support, and continuous hands-on training. The findings describe 19 teachers in two schools and are not intended for generalization.

Keywords: Basic Education; Coping Strategies; Teacher Emotions; Technology Integration; Technostress

Introduction

Technology integration has become an important expectation in basic education as schools use digital applications, online platforms, multimedia resources, and emerging tools to support teaching and learning. For teachers, however, integration involves more than operating devices. It requires interpreting curriculum expectations, adjusting pedagogy, managing classroom conditions, and responding to institutional demands, and an umbrella review of 23 systematic reviews describes teachers as a driving force of digitalization who are also subject to the expectations that rapid digitalization creates (Wohlfart & Wagner, 2023). Because these demands are emotional as well as technical, teachers may experience satisfaction and strain at the same time. Qualitative evidence shows that teachers can feel capable and enjoy technology while also feeling nervous, frustrated, and stressed (Nezakatgoo et al., 2025), and that colleague support and open educational resources can ease technology-related stress (Khlaif et al., 2023). A survey of 1,172 primary school teachers in China likewise found moderate to high technostress during the pandemic, and technostress was positively correlated with work–family conflict and technology-induced health issues, with higher school support lessening those impacts (Wang et al., 2023). Teachers' emotional responses can

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

therefore influence whether technology becomes a meaningful part of classroom practice or an additional burden.

In the Philippines, teachers commonly encounter unreliable internet connectivity, insufficient equipment, limited technical support, and uneven access to professional development. Many Filipino teachers struggle with digital literacy because of institutional and personal barriers, and many lack formal training in information and communication technology (ICT) (Magtoltol & Oropa, 2025). Time and financial constraints also restrict teachers' access to professional development (Chin et al., 2022), and UNESCO's (2023) Southeast Asia report noted that the lack of devices and digital infrastructure makes it difficult for teachers in the Philippines to integrate technology into their professional tasks. Local evidence points in the same direction. In Valencia City, Bukidnon, teachers in Indigenous Peoples schools maximized available devices, contextualized technology use to honor Indigenous identity and learners' needs, and sought collaboration and continuous professional development (Caparoso & Paglinawan, 2025). At a local college, twelve faculty members reported poor connectivity, outdated equipment, insufficient training, and inconsistent technical support, and relied on self-learning, peer collaboration, and mobile-based instruction (Dulay & Mahinay, 2025). A survey of 169 high school teachers in southern Bukidnon and Valencia City found moderate technostress overall, with techno-uncertainty and techno-overload the highest (Anud et al., 2023). Other provincial surveys have measured teachers' ICT competence (Ayunar et al., 2024; Lambunao, 2024), but they describe levels of competence rather than how teachers feel about, and cope with, technology in daily practice.

Studies of teachers' technology-related emotions and coping have grown, but they tend to focus on a single subject area, such as English or social studies (Nezakatgoo et al., 2025; Öksüzoğlu & Tünkler, 2026), on a small group of secondary school teachers (Pondang, 2026), or on the pandemic period (Cahapay & Labrador, 2021; Montebon, 2022). As a result, little is known about how teachers at the elementary, junior high school, and senior high school levels in one local school setting experience technology integration, how they feel about it, how those feelings affect their practice, and how they cope. This study addresses that gap by exploring the lived experiences, emotional responses, coping strategies, and recommendations of public school teachers at two schools in the Department of Education (DepEd) Division of Valencia City, Province of Bukidnon, during School Year 2026–2027. It offers context-specific evidence that may inform teacher support, professional development, and school-level conditions for technology integration.

Research Questions

1. How do basic education teachers describe their experiences in integrating technology into their teaching?
2. What positive, negative, or mixed emotions do teachers experience before, during, and after using technology in instruction, and what situations or factors trigger these emotional responses?
3. In what ways do these emotional responses affect teachers' teaching practices, confidence, motivation, workload, and interactions with learners and colleagues?
4. What strategies, support systems, or personal adjustments do teachers use to cope with the challenges, stress, or emotional difficulties associated with technology integration, and how effective do they perceive these strategies to be?
5. What recommendations do teachers offer to teachers, school leaders, policymakers, and teacher-education institutions to help teachers navigate technology integration more effectively across basic education levels?

Scope and Delimitations

This study was limited to public school teachers at Catumbalon Elementary School and Catumbalon National High School, Department of Education Division of Valencia City, Province of Bukidnon, Philippines, during School Year 2026–2027. It included teachers from the elementary, junior high school, and senior high school levels with direct experience integrating technology into instruction, assessment, communication, or instructional management. The study focused on teachers' lived experiences, emotional responses, coping strategies, and recommendations for improving technology integration. The study did not measure learners' academic performance, technology use, or engagement. It also did not evaluate the effectiveness of specific applications, platforms, devices, or school technology programs. Because the study used a qualitative descriptive-phenomenological design, its findings describe the experiences of the participating teachers in the two schools and are not intended to be generalized to teachers in other schools, divisions, or the Philippines as a whole.

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Literature Review

Technology Integration and the Teacher's Role

Research on technology integration places the teacher at the center of digitalization. Wohlfart and Wagner (2023), in an umbrella review of 23 systematic reviews spanning 40 years of research, described teachers as a driving force behind digitalization who are also subject to the expectations created by rapid digitalization. A parallel line of research examines what technology does for learners; Bouchrika et al. (2021), for example, studied the impact of gamification on student engagement and involvement in e-learning systems. The two bodies of work answer different questions. The first synthesizes what teachers' role in digitalization involves, and the second describes how technology may affect learners. Neither explains how teachers feel while working under these conditions, which is the question taken up by the studies in the next section.

Teachers' Emotions and Technostress

Studies of teachers' emotions and technostress converge on one point: technology produces mixed feelings that depend on the conditions around the teacher. Nezakatgoo et al. (2025) interviewed 11 high school EFL teachers in Tabriz, Iran, and described facilitative emotions, such as feeling capable and enjoying technology, alongside debilitative ones, such as nervousness, frustration, and stress; the teachers coped with emotions arising from institutional technology policies by asking colleagues for help, being patient, and trying to control negative emotions. Khlaif et al. (2023), who collected open-ended responses from 70 teachers, identified technology complexity and privacy concerns as sources of technostress and found that colleague support and open educational resources eased it. In a survey of 1,172 primary school teachers in China, Wang et al. (2023) found moderate to high technostress and examined it alongside school support, work–family conflict, and health. Phenomenological studies add the teacher's own voice. Pondang (2026) described the experiences of 12 Philippine secondary school teachers and concluded that technostress is shaped by institutional expectations and digital work norms and is not only an individual response, while Öksüzoğlu and Tünkler (2026) found among five social studies teachers that accessible technical assistance and supportive leadership were central to reducing technostress and sustaining integration.

These studies differ in method, from a survey to an open-ended questionnaire to interviews, and in scale, from five to 1,172 teachers, but each addresses one subject area, one school type, or one country's teachers as a single group. None of them examines teachers across elementary, junior high school, and senior high school levels within one local system.

Teacher Support and Professional Learning

Support research explains how some teachers sustain integration. Chiu (2022), using self-determination theory, proposed a school learning support model with leader, expert, and peer dimensions to meet teachers' basic needs and thereby increase their motivation for and persistence in classroom technology integration. Theodorio (2024) reached a related conclusion from the standpoint of what educators need, namely continuous and proactive support to build the technical competencies that innovative teaching requires. In the Philippines, Alpuerto (2022) found that science teachers coped with ICT integration challenges through self-training, collaboration with colleagues and knowledgeable others, and time management and self-organization, whereas Chin et al. (2022) showed that time and financial constraints and limited logistical support restricted teachers' access to the professional development that such studies recommend. Together, these studies suggest that Filipino teachers may rely on informal strategies partly because formal support is hard to obtain, an idea the present study examines through teachers' own accounts.

Philippine and Local Context

Philippine studies describe similar constraints but differ in focus and period. Cahapay and Labrador (2021) identified barriers such as poor internet connection and unfamiliarity with remote instructional design among eleven high school English language teachers during emergency remote education, together with enablers such as self-directed learning and school and community support. Enarsao (2022) found that teachers in three Tagaytay City public schools experienced a "culture shock" during the transition to blended learning and felt neither prepared nor adequately skilled, but eventually adopted a positive mindset toward blended learning, improved their technical skills, and changed their pedagogical practices to engage students. Montebon (2022) used a transcendental phenomenological design with Filipino teachers and reported themes on challenges, coping strategies, and technology use. In Valencia City, qualitative work has covered seven teachers in Indigenous Peoples schools (Caparoso & Paglinawan, 2025) and twelve faculty members at one college (Dulay & Mahinay, 2025), while survey work in the wider area has measured technostress (Anud

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

et al., 2023) and ICT competence (Ayunar et al., 2024; Lambunao, 2024). Most Philippine studies were conducted during the pandemic, within one subject area or institution, or through surveys, so they say less about how teachers across levels in public schools experience technology integration under ordinary conditions.

Methodology

Research Design

This study employed a qualitative descriptive-phenomenological design to examine the experiences, emotional responses, and coping strategies of basic education teachers in integrating technology into instruction. Phenomenological research describes the shared meaning of a lived experience as participants report it (Creswell & Poth, 2018; Neubauer et al., 2019). A qualitative design was appropriate because the study sought to understand teachers' lived experiences, interpretations, and situated practices rather than measure the frequency of predetermined variables. Phenomenology enabled the researcher to foreground participants' accounts of actual classroom events, emotional responses, and coping actions, while the descriptive orientation allowed these experiences to be presented in a clear and organized manner. The design aligned directly with the study's purpose of understanding how teachers navigate technology integration across basic education levels.

Research Locale

The study was conducted at Catumbalon Elementary School and Catumbalon National High School in the Department of Education Division of Valencia City, Province of Bukidnon, Philippines, during School Year 2026–2027. Together, the two schools gave access to teachers at the elementary, junior high school, and senior high school levels, which allowed the study to examine technology integration across the three levels within one local school setting.

Research Participants

The participants were 19 public school teachers from Catumbalon Elementary School and Catumbalon National High School in the DepEd Division of Valencia City: two from the elementary level, nine from the junior high school level, and eight from the senior high school level. They taught different subject areas and grade levels, which provided varied perspectives on technology integration across the basic education continuum. Because only two participants taught at the elementary level, observations about elementary teachers are tentative. To protect their identities, participants were identified as KI1 to KI19 (KI stands for key informant, followed by the participant's number) in all transcripts and reports, and no participant names are reported.

Research Instrument

Data were collected using a researcher-developed semi-structured interview guide based on the study objectives and related literature. The guide consisted of five main open-ended questions: (a) teachers' experiences in integrating technology into teaching; (b) positive, negative, or mixed emotions experienced before, during, and after technology use and the factors that triggered them; (c) the effects of these emotional responses on teaching practices, confidence, motivation, workload, and interactions with learners and colleagues; (d) strategies, support systems, and personal adjustments used to cope with challenges, and how effective they were; and (e) recommendations for teachers, school leaders, policymakers, and teacher-education institutions. Follow-up probes, such as "Can you give an example?" and "What made that experience challenging or successful?", were used to elicit detailed accounts. The interview guide was reviewed by at least three experts in qualitative research, educational technology, and basic education, who assessed its clarity, relevance, and alignment with the study's purpose. Experts' feedback was collected through a validation form. A pilot test was then conducted with a small group of teachers who matched the profile of the intended participants of the main study.

Data Gathering Procedure

Before data collection, permission was secured as described under Sampling Design, and informed consent was obtained from all participants. Interviews were conducted at a time and place convenient to the participants, either face-to-face or through a secure online platform when necessary. With participants' permission, each interview was audio-recorded to preserve their exact accounts, while field notes were taken to record nonverbal cues, contextual details, and initial impressions. Each interview lasted approximately 45 to 60 minutes. The researcher used probing questions to encourage detailed narration while avoiding leading

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

responses. After each interview, recordings were transcribed verbatim, reviewed against the recordings, and returned in summary form to selected participants for member checking.

Results and Discussions

The findings are presented thematically in accordance with the qualitative descriptive-phenomenological design. Five themes emerged, one for each research problem. Table 1 shows how codes were grouped into categories and themes, and Figure 1 shows how the themes relate to one another and to the conditions in which teachers worked. Participants are identified as KI1 to KI19, and where a participant stated the level or subject taught, it is given with the excerpt. Each theme is followed by a discussion that compares the findings with earlier studies.

Table 1. Research problems, categories, representative codes, and emerging themes

Research problem	Categories	Representative codes	Emerging theme
1. Experiences in integrating technology	Technology as a tool for engaging instruction; technology as a tool for improving teaching and learning; contextual challenges in technology integration	Use of multimedia resources; interactive and gamified platforms; making abstract concepts concrete; formative assessment; limited access to devices and internet; teacher flexibility and preparedness	Technology integration as an engaging but context-dependent teaching practice
2. Emotions and their triggers	Positive emotional responses; negative and mixed emotional responses; conditions shaping emotional responses	Excitement and motivation; satisfaction and fulfillment; anxiety and nervousness; frustration and stress; embarrassment and self-doubt; exhaustion from preparation; contextual triggers	Emotional ambivalence: motivation amid technical and contextual uncertainty
3. Effects on practice, confidence, workload, and relationships	Positive effects on professional practice; negative effects on workload and well-being; adaptive professional responses	Increased teaching confidence; strengthened motivation and creativity; increased workload and stress; hesitation after repeated failures; professional collaboration and help-seeking; preservation of teacher agency	Adaptive professional growth: turning emotional challenges into confident and collaborative technology use
4. Coping strategies and perceived effectiveness	Proactive instructional preparation; collaborative and professional learning support; emotional and reflective adjustment; perceived effectiveness of coping strategies	Preparation of backup materials; advance checking and practice; collaboration with colleagues; peer mentoring and "tech buddy" support; self-directed learning; emotional regulation; reflection after lessons	Resilient and collaborative coping: preparing, learning, and adjusting
5. Recommendations	Strengthening infrastructure and access; building teacher capacity; promoting purposeful technology integration	Reliable internet connectivity; adequate devices and ICT equipment; technical assistance and support personnel; continuous hands-on training; time for preparation and practice; pedagogy-based technology use; context-sensitive implementation	Sustainable and context-sensitive integration through capacity building, infrastructure support, and purposeful pedagogy

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

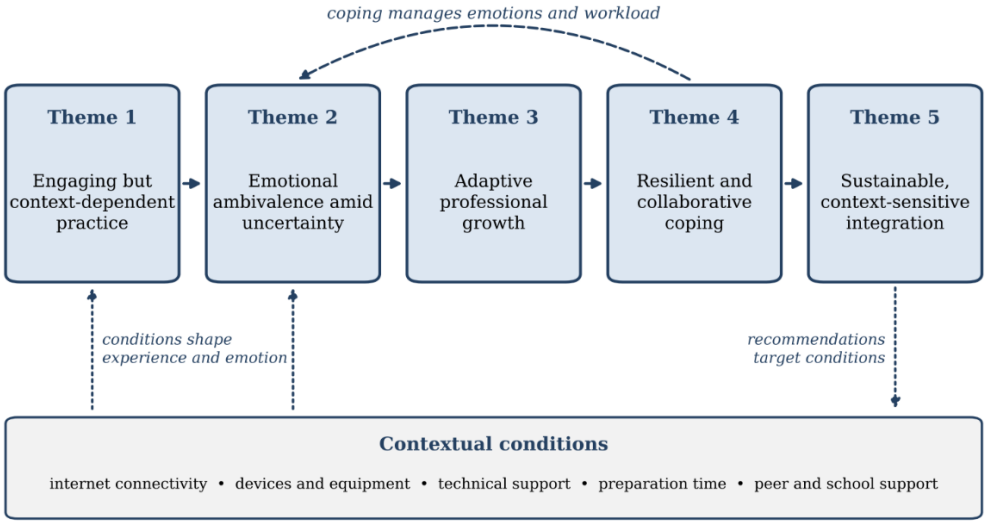


Figure 1: *Thematic map of teachers' experiences, emotional responses, effects on practice, coping strategies, and recommendations within their contextual conditions*

Research Question 1: How do basic education teachers describe their experiences in integrating technology into their teaching?

Theme 1: Technology Integration as an Engaging but Context-Dependent Teaching Practice

Teachers described technology as something that made lessons more engaging, visual, and easier to understand. KI6, a science teacher, replaced textbook illustrations with "a short educational video and an interactive presentation" on plant parts, then used group quiz results "to identify which concepts needed further explanation." KI16, a junior high school mathematics teacher, used Khan Academy so that learners could "receive immediate feedback" while the teacher monitored progress and identified who needed additional support. KI9 reported that game-based lessons made learners "interactive and responsive," and KI17, who taught Grade 9 Music, saw learners use their mobile devices to create and explore music on BandLab.

This engagement, however, depended on conditions that teachers did not control. KI7 recalled a collaborative online activity that "had to be scrapped because the internet suddenly went down" and a lesson in which "only half the class could participate because there weren't enough tablets to share." KI8, a Grade 3 teacher, described unstable internet, limited devices, and "the need to prepare alternative activities when technology did not work as expected," and concluded that technology "should always be supported by good preparation and a backup plan." KI11, who teaches computer programming, prepared offline materials because "limited internet connectivity sometimes makes it difficult," and KI19, who teaches Grade 9 and 10 science, did the same when connectivity was unstable. KI13, a senior high school teacher, also reported internet or technical problems but found technology helpful "when it is properly planned and used according to the learners' needs."

The theme shows that participants valued technology for what it did in specific lessons: engaging learners, making abstract content visible, and, in the accounts of KI6 and KI16, supplying quick evidence of what learners understood. This adds to research on the impact of gamification on engagement (Bouchrika et al., 2021) by showing that these teachers also used digital tools to make formative decisions, such as which concept to explain again. The accounts of KI7, KI8, KI11, and KI19 show how the expectations that digitalization places on teachers (Wohlfart & Wagner, 2023) meet everyday conditions: when connectivity or devices fail, the teacher absorbs the consequence by preparing alternatives. They also match reports of connectivity, equipment, training, and support constraints in the Philippines and in Valencia City (Dulay & Mahinay, 2025; Magtoltol & Oropa, 2025; UNESCO, 2023). Because the quoted teachers taught at different levels, including Grade 3 (KI8), Grades 9 and 10 (KI19), and senior high school (KI13), the repeated mention of connectivity and device limits suggests that these conditions cut across levels instead of belonging to one of them. The study did not compare levels systematically, and only two participants taught at the elementary level, so this reading is tentative. In the terms of the transactional model (Lazarus & Folkman, 1984), the same tool was appraised as a resource when it worked and as a demand when it failed, which sets up the emotional responses reported under Problem 2.

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Research Question 2: What positive, negative, or mixed emotions do teachers experience before, during, and after using technology in instruction, and what situations or factors trigger these emotional responses?

Theme 2: Emotional Ambivalence in Technology Integration: Motivation Amid Technical and Contextual Uncertainty

Teachers' emotions were mixed and changed with how a lesson unfolded. Eleven participants described excitement or motivation before or during lessons, and twelve described satisfaction or fulfillment when learners participated and objectives were met. KI7 described the whole sequence in one account: "a surge of excitement and anticipation" before introducing a tool, then anxiety ("Will the internet hold up? Will the devices work? Will I be able to troubleshoot if something goes wrong?"), and afterward feeling "energized and motivated" if the lesson went well or "drained" if it did not.

Negative emotions were tied to specific triggers. Eight participants reported anxiety or nervousness, and nine reported frustration or stress, most often when connectivity failed, devices malfunctioned, or applications were unfamiliar. KI3 felt anxious "whenever I can't access some materials online, or there is no electricity." KI8 felt frustrated "when I have spent a lot of time preparing digital materials but cannot use them because of technical difficulties." KI14's frustration came from not knowing how to operate an application, but it eased because the work became easier "after mastering it." Embarrassment and self-doubt appeared in one account (KI7), who felt embarrassment "when technology fails in front of everyone," and exhaustion from the added preparation appeared in two (KI7 and KI19).

Not all emotions were tied to technical conditions. KI9 acknowledged that learners are sometimes more adept with technology than the teacher and responded with humility: "I am humble enough to learn from them." KI5 found the convenience of preparation positive but described a negative feeling about "the utilization of AI and our natural resources," a concern that no other participant raised in their emotional accounts.

The mix of facilitating and debilitating emotions matches Nezakatgoo et al. (2025), whose interviewees felt capable and enjoyed technology yet felt nervous, frustrated, and stressed. The sources of strain that participants named, such as complicated or unfamiliar applications (KI14, KI18), resemble the technology characteristics that Khlaif et al. (2023) identified as sources of technostress. The present data add the timing of the emotions: several participants (KI7, KI8, KI13, KI19) described distinct feelings before, during, and after a lesson, which suggests that emotions are better understood as a sequence across a lesson than as a fixed state. KI7's question about "whether the system is set up for me to succeed" resonates with Pondang's (2026) conclusion that technostress reflects institutional expectations and work norms and not only individual response. Read through the transactional model (Lazarus & Folkman, 1984), the accounts show teachers appraising a lesson as a challenge before it begins and as a threat when resources fail, which explains why excitement and anxiety often appeared together in one teacher's account. Embarrassment and exhaustion were rare in this data set (KI7 and KI19), so these accounts are best read as individual cases and not as patterns.

Research Question 3: In what ways do these emotional responses affect teachers' teaching practices, confidence, motivation, workload, and interactions with learners and colleagues?

Theme 3: Adaptive Professional Growth: Turning Emotional Challenges Into Confident and Collaborative Technology Use

Twelve participants said that successful technology use increased their confidence, and nine described stronger motivation or creativity. KI5 felt "confident in the delivery of my lessons," KI10 felt more confident "using innovative strategies" when technology worked well, and KI18 said that discovering useful tools built confidence and that technology "reduces my preparation time and workload." KI15 summarized that technology "made my teaching easier and lighter."

At the same time, eight participants reported that technical problems and preparation demands increased their workload and stress. KI13 said that technical problems "can sometimes cause stress, increase my workload, and make me less confident during the lesson." KI7 described a lasting effect: repeated failures and lack of support made the teacher "hesitant to plan ambitious tech-based activities," and exhaustion sometimes "spills over" into interactions with students. KI3 gave the briefest account of an effect, reporting that they "lacked motivation."

Rather than stopping, teachers adjusted. Nine participants described seeking help or collaborating with colleagues, and several described becoming more careful and prepared. KI1 learned to "remain calm and treat them as learning opportunities" when problems occurred. Teachers also guarded their instructional

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

role: KI8 made sure that "technology does not replace direct interaction between the teacher and the learners," and KI9 stated that "a teacher cannot be replaced by any means of technology."

The pattern in which success raised confidence and failure raised workload is consistent with the self-determination argument in Chiu (2022) that leader, expert, and peer support sustains teachers' motivation for and persistence in technology integration. KI7's account shows the other side of that argument: repeated failure without adequate support led to hesitation. Wang et al. (2023) found technostress positively correlated with work–family conflict and technology-induced health issues, with higher school support lessening those impacts, so KI7's exhaustion fits the concern that unsupported technology demands can affect well-being, although this study did not measure well-being. Locally, Alpuerto (2022) reported that Filipino science teachers responded to ICT difficulties through self-training, collaboration, and time management, which resembles the self-exploration and colleague help described by KI9 and the practice time that KI6 gave to new tools. The insistence of KI8 and KI9 that technology supports but does not replace the teacher shows that adaptation did not mean giving up their instructional role. These effects are the teachers' own reports; the study did not measure confidence, workload, or well-being.

Research Question 4: What strategies, support systems, or personal adjustments do teachers use to cope with the challenges, stress, or emotional difficulties associated with technology integration, and how effective do they perceive these strategies to be?

Theme 4: Resilient and Collaborative Coping: Preparing, Learning, and Adjusting to Sustain Technology Integration

Eight participants prepared backup materials, and seven practiced or checked tools and files before lessons. KI8 prepared digital materials ahead of time, downloaded videos "so that I can still use them when the internet connection becomes unstable," and prepared printed alternatives. KI13 kept important files offline, and KI19 downloaded videos and presentations and prepared printed worksheets. KI7 always prepared "a 'Plan B,'" such as "a printed version of a digital activity or an alternative non-tech lesson."

Twelve participants relied on colleagues, and five each attended trainings or learned independently through tutorials and exploration. KI7 described informal "tech buddy" systems in which teachers "check in before big digital lessons," and KI9 asked colleagues who were technology experts for help and turned to self-exploration "when nobody can assist you." KI3 relied on "trial and error and calming techniques."

Six participants described regulating their emotions, for example by staying calm, accepting mistakes, and adjusting expectations. KI6 gave "time to practice" and accepted "that mistakes are part of the learning process," and KI7 focused on "incremental progress" and celebrated "small wins." Ten participants reported that these strategies reduced their stress or built their confidence, and KI2 said they helped "handle technical challenges more calmly." KI7's assessment was more guarded: the strategies were "moderately to highly effective," and would work even better "with stronger institutional backing like reliable gadgets, stable internet, and on-site technical support."

Following the transactional model (Lazarus & Folkman, 1984), the strategies fall into three groups: problem-focused efforts that changed the situation (backup materials, offline files, advance practice), emotion-focused efforts that managed feelings (staying calm, accepting mistakes, adjusting expectations, reflecting), and support seeking (asking colleagues, "tech buddy" arrangements, trainings). This grouping parallels reports that colleague support and open educational resources ease technostress (Khlaif et al., 2023), that technical support, relaxation, time management, and competence building help teachers cope (Öksüzoğlu & Tünkler, 2026), and that teachers cope with policy-related emotions by asking colleagues for help, being patient, and controlling negative emotions (Nezakatgoo et al., 2025). It also agrees with Philippine findings on self-training, collaboration, and time management (Alpuerto, 2022), with local reports of self-learning and peer collaboration (Caparoso & Paglinawan, 2025; Dulay & Mahinay, 2025), and with Theodorio's (2024) emphasis on continuous and proactive support for educators.

What the present accounts add is how much coping responded to infrastructure. Offline files, printed worksheets, and "Plan B" lessons all insure against connectivity or device failure, and KI7 stated that the strategies would work better with institutional backing. On this reading, individual coping compensated for gaps that school-level support could narrow, an interpretation that fits Pondang's (2026) view of technostress as institutionally shaped. The effectiveness reported here is the participants' own perception; the study did not measure stress or confidence before and after, so it cannot show that the strategies work.

Research Question 5: What recommendations do teachers offer to teachers, school leaders, policymakers, and teacher-education institutions to help teachers navigate technology integration more effectively across basic education levels?

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Theme 5: Sustainable and Context-Sensitive Technology Integration Through Capacity Building, Infrastructure Support, and Purposeful Pedagogy

Recommendations clustered around infrastructure, capacity building, and purposeful use. Ten participants recommended reliable internet, nine recommended adequate devices or equipment, eight asked for technical assistance, and four asked for equitable funding. KI7 urged leaders to treat reliable gadgets and connectivity as "essentials for 21st-century learning," to create "a dedicated tech support role or team so teachers aren't left to troubleshoot alone," and to provide "sustainable, equitable funding" for remote or under-resourced schools. KI9 noted that internet problems in classrooms sometimes keep teachers from using technology at all.

Continuous hands-on training was the most frequent recommendation, made by thirteen participants, and eight asked that teacher education include technology integration. KI8 asked for training on "how to integrate them appropriately into actual classroom lessons" and not only on how to operate tools, and six participants asked for enough time to prepare and practice. KI14 suggested asking the principal "to include it in your LAC sessions," referring to Learning Action Cell (LAC) sessions, and KI19 asked for practical training on digital assessment and artificial intelligence tools.

Six participants stressed purposeful, pedagogy-based use. KI10 recommended "appropriate technology tools that directly support the learning objectives rather than using technology just for the sake of using it," and KI18 advised teachers not to feel "pressured to use complicated technologies." KI4 asked for "Easy-access websites" and "No changes every time," and KI15 advocated gamification because it increases learners' interest. Two participants (KI11 and KI19) recommended offline alternatives, and one participant asked that Alternative Learning System (ALS) learning centers also receive adequate technological support.

These recommendations correspond to the barriers that Philippine studies describe: institutional barriers and the lack of formal ICT training (Magtoltol & Oropa, 2025), time and financial constraints on professional development (Chin et al., 2022), and, in Valencia City, poor connectivity, outdated equipment, insufficient training, and inconsistent technical support (Dulay & Mahinay, 2025). The call for continuous, hands-on training agrees with Theodorio's (2024) emphasis on continuous and proactive support and with the argument that leader, expert, and peer support sustains teachers' persistence (Chiu, 2022), and the emphasis on accessible technical assistance and supportive leadership is consistent with Öksüzoğlu and Tünkler (2026). Two points are particular to these participants. First, the recommendations for equitable funding and offline alternatives (KI7, KI11, KI19) show that teachers planned around unreliable resources and asked for support that would reach schools with fewer of them. Second, the requests for preparation time and for training connected to actual lessons (KI8, KI16) suggest that teachers see training as most useful when it is practical and continuous and not a one-time event. The recommendations were not tested, so the study cannot show which of them would reduce teachers' difficulties.

Ethical Considerations

Permission to conduct the study was obtained from the schools division superintendent of the Department of Education Division of Valencia City and from the heads of Catumbalon Elementary School and Catumbalon National High School before any teacher was approached. The participants were adult teachers who volunteered to share their professional experiences, and the interview topics posed no more than minimal risk. The safeguards described below were applied throughout. All participants received an information sheet explaining the purpose of the study, the interview procedure, the expected duration of participation, the possible benefits and risks, and the measures taken to protect their confidentiality. Written informed consent was obtained from each participant before the interview. Participation was voluntary, and participants were informed that they could decline to answer any question, pause, or withdraw from the study at any time without penalty or effect on their employment. Confidentiality and anonymity were maintained throughout the research process. Participants were identified by the codes KI1 to KI19, and no participant names are reported. Although the two participating schools are named, descriptions of participants were limited to the grade level or subject needed to interpret an excerpt. Audio recordings, transcripts, field notes, consent forms, and coding materials were stored securely and accessed only by the researcher and authorized members of the research team. Data were used solely for this study and will be retained and disposed of in accordance with the Data Privacy Act of 2012 (Republic Act No. 10173) and applicable institutional research policies. The researcher also safeguarded participants' emotional well-being. Because the interviews addressed experiences of stress, frustration, and other emotional challenges related to technology integration, participants were reminded that they could take a break, skip a question, or end the interview if they felt uncomfortable. If distress occurred, the researcher offered a pause, changed the topic, or ended the interview as necessary.

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Conclusion

This study explored how public-school teachers across the elementary, junior high school, and senior high school levels in the DepEd Division of Valencia City experienced technology integration. The 19 participants described technology as a way to engage learners and clarify abstract content, with benefits that depended on connectivity, devices, preparation, and support. Their emotions were mixed and shifted with how a lesson unfolded: excitement and satisfaction when learners participated, and anxiety and frustration, and, for a few, exhaustion, when technology failed. Teachers reported that successful use raised their confidence and that failures raised their workload, and they responded through preparation, collaboration, self-directed learning, and emotional adjustment. Many reported that these strategies reduced their stress and strengthened their confidence, although the study did not measure either outcome. Several accounts suggest that individual coping compensated for gaps in infrastructure and technical support. The study contributes a qualitative account, interpreted through the transactional model of stress and coping, that connects teachers' experiences, emotions, effects on practice, coping, and recommendations across three levels within two schools in one division. The findings rest on the self-reports of 19 teachers in two schools, only two of whom taught at the elementary level, and are not intended for generalization.

Recommendations

The following actions are suggested, grouped by priority and linked to the themes that support them. They draw on the accounts of 19 teachers in two schools and have not been tested. Priority 1: Immediate, School-Level Actions. School heads, with division ICT coordinators, may identify and address the connectivity and device problems that interrupt lessons, beginning with classrooms where teachers report frequent interruptions (Themes 1 and 5). School heads may designate a technical support person or a fixed support schedule so that teachers do not troubleshoot alone (Themes 2 and 5). School heads may protect time for preparation and practice and may include hands-on technology sessions tied to actual lessons in Learning Action Cell sessions, supported by peer mentoring or "tech buddy" arrangements (Themes 3, 4, and 5). Teachers may prepare backup and offline activities, practice tools before use, choose tools that serve the learning objectives, and share resources with colleagues (Themes 1 and 4). Priority 2: Division and Policy Actions. Division officials and policymakers may allocate equitable funding for devices, connectivity, and maintenance, with priority for rural and under-resourced schools and for Alternative Learning System learning centers (Theme 5). Training providers may offer continuous, hands-on professional development that goes beyond tool operation to cover integration into lessons, digital assessment, and artificial intelligence tools, with follow-up support after each session (Themes 4 and 5). Priority 3: Longer-Term Actions. Teacher-education institutions may give pre-service teachers hands-on experience with educational technology and may teach contingency planning and emotional resilience as part of technology integration (Theme 5). Future research may include other schools, divisions, and regions, compare levels and school resource conditions directly, use mixed-methods or longitudinal designs, and evaluate whether technical support systems, peer mentoring, and Learning Action Cell sessions reduce technostress.

References

Alpuerto, R. J. C. (2022). Science teachers' experiences on ICT integration: Challenges, coping mechanisms, and opportunities. Sapienza: International Journal of Interdisciplinary Studies, 3(2), 136–145. https://doi.org/10.51798/sijis.v3i2.254

Anud, E. M., Jr., Aungon, V. B., & Barrot, N. L. (2023). Teachers' technostress and their 21st century technological pedagogical and content knowledge (TPACK-21) in the post-pandemic educational environment. International Journal of Applied Science and Research, 6(5), 139–146. https://doi.org/10.56293/IJASR.2022.5567

Ayunar, G. S., Casildo, N. J. G., Talandron-Felipe, M. M. P., Bonifacio, K. L. A., Sebuguero, F. S., & Marcelo, J. G. (2024). Determinants of ICT competency among public school teachers in Bukidnon. In Proceedings of the 32nd International Conference on Computers in Education. Asia-Pacific Society for Computers in Education. https://doi.org/10.58459/icce.2024.4991

Bouchrika, I., Harrati, N., Wanick, V., & Wills, G. (2021). Exploring the impact of gamification on student engagement and involvement with e-learning systems. Interactive Learning Environments, 29(8), 1244–1257. https://doi.org/10.1080/10494820.2019.1623267

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Cahapay, M. B., & Labrador, M. G. P. (2021). Barriers and enablers of emergency remote education amid COVID-19 pandemic: Perspectives of English language teachers. International Journal of

This article is licensed under a Creative Commons Attribution 4.0 International License.

Educational Studies, 4(4), 159–164. https://ideas.repec.org/a/ajo/ijoest/v4y2021i4p159-164id168.html

Caparoso, J. L., & Paglinawan, J. L. (2025). Voices from the margins: Exploring teachers' technology integration in Indigenous school contexts. International Journal of Scientific and Management Research, 8(10), 110–121. https://doi.org/10.37502/IJSMR.2025.81008

Chin, J. M.-C., Ching, G. S., del Castillo, F., Wen, T.-H., Huang, Y.-C., del Castillo, C. D., Gungon, J. L., & Trajera, S. M. (2022). Perspectives on the barriers to and needs of teachers' professional development in the Philippines during COVID-19. Sustainability, 14(1), Article 470. https://doi.org/10.3390/su14010470

Chiu, T. K. F. (2022). School learning support for teacher technology integration from a self-determination theory perspective. Educational Technology Research and Development, 70(3), 931–949. https://doi.org/10.1007/s11423-022-10096-x

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Data Privacy Act of 2012, Republic Act No. 10173 (2012). https://www.privacy.gov.ph/data-privacy-act/

Dulay, L. A., & Mahinay, W. R. (2025). Empowering science instruction through ICT integration: Teachers' perceptions, challenges, and adaptive practices at Valencia Colleges, Inc. International Journal of Research and Innovation in Social Science, 9(11), 6217–6221. https://doi.org/10.47772/IJRISS.2025.91100487

Enarsao, M. C. S. (2022). Teachers' lived experiences in blended learning during the COVID-19 pandemic in selected schools in Tagaytay City, Philippines. AIDE Interdisciplinary Research Journal, 3(1). https://www.ejournals.ph/article.php?id=18304

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field Methods, 18(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation: How many interviews are enough? Qualitative Health Research, 27(4), 591–608. https://doi.org/10.1177/1049732316665344

Khlaif, Z. N., Sanmugam, M., Joma, A. I., Odeh, A., & Barham, K. (2023). Factors influencing teacher's technostress experienced in using emerging technology: A qualitative study. Technology, Knowledge and Learning, 28(2), 865–899. https://doi.org/10.1007/s10758-022-09607-9

Lambunao, G. B. (2024). Enhancing ICT competency among public elementary teachers: A case study in Manolo Fortich II District, Bukidnon. International Journal of Research and Innovation in Social Science, 8(3s), 5645–5648. https://doi.org/10.47772/IJRISS.2024.803423S

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer Publishing Company.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.

Magtoltol, R. C., & Oropa, J. C. (2025). ICT landscape and digital literacy skills of basic education teachers. Journal of Interdisciplinary Perspectives, 3(6), 145–153. https://doi.org/10.69569/jip.2025.173

Montebon, D. R. (2022). Teaching and technology: A transcendental phenomenology of select Filipino teachers' experiences in the new normal. Journal of Education Naresuan University, 24(2), 12–25. https://so06.tci-thaijo.org/index.php/edujournal_nu/article/view/252934

Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. Perspectives on Medical Education, 8(2), 90–97. https://doi.org/10.1007/s40037-019-0509-2

Nezakatgoo, B., Mirzapour, F., & Mohseni, M. (2025). Teachers' emotions and experiences as influential factors in using technology in EFL classes. Journal of Modern Research in English Language Studies, 12(3), 129–153. https://doi.org/10.30479/jmrels.2024.20181.2356

Öksüzoğlu, M. K., & Tünkler, V. (2026). Exploring technology integration challenges and coping strategies among social studies teachers. Discover Education, 5(1), Article 291. https://doi.org/10.1007/s44217-026-01428-7

Pondang, K. A. (2026). Teaching amidst digital noise: A phenomenological study of technostress in Philippine secondary schools. Journal of Interdisciplinary Perspectives, 4(6), 309–322. https://doi.org/10.69569/jip.2026.176

Theodorio, A. O. (2024). Examining the support required by educators for successful technology integration in teacher professional development program. Cogent Education, 11(1), Article 2298607. https://doi.org/10.1080/2331186X.2023.2298607

UNESCO. (2023). Global education monitoring report 2023, Southeast Asia: Technology in education: A tool on whose terms? UNESCO and Southeast Asian Ministers of Education Organization. https://www.unesco.org/gem-report/en/2023-southeast-asia

This article is licensed under a Creative Commons Attribution 4.0 International License.

International Journal of Research on Multidisciplinary Studies
Online ISSN: 3116-4137 | Print ISSN: 3116-4145
Volume 1, Issue 10, pp. 688-699, November 2026
https://ijroms.com
Original Article

Wang, Z., Zhang, L., Wang, X., Liu, L., & Lv, C. (2023). Navigating technostress in primary schools: A study on teacher experiences, school support, and health. Frontiers in Psychology, 14, Article 1267767. https://doi.org/10.3389/fpsyg.2023.1267767

Wohlfart, O., & Wagner, I. (2023). Teachers' role in digitalizing education: An umbrella review. Educational Technology Research and Development, 71(2), 339–365. https://doi.org/10.1007/s11423-022-10166-0

This article is licensed under a Creative Commons Attribution 4.0 International License.