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Testimonies of Elementary School Heads on Adaptive Digital Leadership

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Abstract. Digital transformation requires school leaders to respond to technological change amid uneven infrastructure, differing teacher readiness, and limited resources, yet few qualitative studies show how elementary school heads in rural Philippine settings experience this work. This study explored the testimonies of elementary school heads on adaptive digital leadership, namely the reasons for adopting it, the challenges encountered, how the challenges were managed, and their recommendations to other elementary school heads. A qualitative interpretive phenomenological design was used. Sixteen elementary school heads, four from each of the Quezon I, II, III, and IV Districts of the Schools Division of Bukidnon, were purposively selected, interviewed through a semi-structured guide, and analyzed thematically. Four emerging themes were identified: adaptive digital leadership as a catalyst for responsive and future-ready school transformation; navigating interconnected barriers toward sustainable digital transformation; adaptive and collaborative leadership for sustainable digital transformation; and people-centered and strategic adaptive leadership for sustainable digital transformation. The elementary school heads adopted adaptive digital leadership because of communication and data needs, pandemic disruption, policy expectations, limited resources, and a desire to prepare their schools for the future. They faced human, technological, infrastructural, financial, and inclusion-related barriers, which they managed through peer mentoring, gradual and consultative change, resource sharing, stakeholder partnerships, contingency planning, and data protection. The study concludes that adaptive digital leadership is a people-centered and strategic process that depends on sustained training, infrastructure, and technical support.

Keywords: Adaptive Leadership; Digital Leadership; Digital Transformation; Elementary School Heads; Phenomenology

Introduction

Digital transformation has become a major challenge for educational institutions, requiring leaders to rethink teaching and learning, governance, student services, organizational processes, and institutional culture (Cortellazzo et al., 2019; Trenerry et al., 2021). Digital leadership therefore extends beyond technological competence to include setting direction, developing a digital culture, promoting innovation, mobilizing stakeholders, and aligning technology with institutional goals (Baldera et al., 2025; Sheninger, 2019). Evidence suggests that leadership, not technology alone, determines how far digital change takes hold. In three public primary schools in Gauteng West, South Africa, school leadership remained largely conventional and did not promote digital learning (Dasruth et al., 2024), and a survey of 520 teachers across 16 Philippine regions rated school heads' digital leadership as only satisfactory (Tanucan et al., 2022). Adaptive leadership has therefore drawn attention as a response to uncertainty. A study in Ethiopia examined principals' adaptive practices amid a quality education crisis (Alene et al., 2025), and a case study in Indonesia traced how elementary school heads used adaptive leadership under limited resources and uneven teacher readiness for digital tools (Ayuningtias et al., 2026).

The conditions under which school heads lead this change are unequal. Globally, only 40% of primary schools are connected to the internet (UNESCO, 2023). The Programme for International Student Assessment (PISA) 2022 found that, on average across OECD countries and in 41 education systems, socio-economically disadvantaged schools were more likely than advantaged schools to lack digital resources or to have poor-quality ones (OECD, 2023). In the Philippines, Department of Information and Communications Technology data cited in 2024 showed that, as of September 2022, only 1.8% of 47,421 public schools had

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free Wi-Fi, while 85% of about 14,000 private schools had online access (Philippine Daily Inquirer, 2024). A national assessment likewise concluded that Philippine schools have low computer and internet access rates compared with neighboring countries (Navarro, 2024).

Within this context, the Department of Education (DepEd) adopted the Philippine Professional Standards for School Heads (DepEd Order No. 24, s. 2020), which defines the professional practice expected of the 43,448 school heads then serving in the system (Australian Embassy in the Philippines, 2020; DepEd, 2020). Research on Filipino school heads' digital leadership is growing but remains uneven. A survey of 386 school leaders found that digital leadership differed by socio-demographic characteristics such as school location and type (Tanucan et al., 2023). A qualitative study of six principals in Manila identified visionary leadership, collaboration, adaptability, and strategic resource allocation (Baldera et al., 2025). In the Division of Bukidnon, administrators in Damulog South and Maramag II (n = 104 respondents) were rated fluent in digital use, and problem-solving skills and supportive leadership together explained about 55% of the variance in digital fluency (De Los Reyes & Paglinawan, 2024), while a survey of 289 respondents in Baungon found equity and access to be the highest-rated challenge in technology integration (Celeste & Osias, 2024).

Most of these studies are survey-based and report ratings of leaders or of the challenges they face. To the best of the author's knowledge, none has examined how elementary school heads in the municipality of Quezon, Bukidnon, themselves interpret and navigate the adaptive demands of digital transformation. A qualitative approach is therefore appropriate for understanding how they interpret challenges, make decisions, and adjust their practices.

Research Questions

The study sought to answer the following research questions:

1. What reasons led you to adopt adaptive digital leadership in your school?
2. What challenges did you encounter in adopting adaptive digital leadership?
3. How did you manage these challenges?
4. What are your recommendations to other elementary school heads?

Scope and Delimitations

The study covers elementary school heads who were serving in the Quezon I, II, III, and IV Districts of the Schools Division of Bukidnon, in the Municipality of Quezon, Bukidnon, during School Year 2026–2027. Sixteen school heads, four from each district, were purposively selected on the basis of their direct experience in managing digital technologies and initiatives. The inquiry is confined to the four research questions stated above: the reasons for adopting adaptive digital leadership, the challenges encountered, how these challenges were managed, and the school heads' recommendations to other elementary school heads. The study is delimited to the testimonies of school heads gathered through semi-structured interviews. It does not include the views of teachers, learners, parents, or other stakeholders, and it does not measure the level or effects of digital leadership on teacher competence, instructional quality, or learner outcomes. The study is also limited to elementary school heads in one municipality and relies on self-reported testimonies, so the findings are best transferred by comparison to similar rural contexts rather than generalized.

Literature Review

International evidence shows that digital change is shaped by leadership practice and context. The UNESCO Global Education Monitoring Report found that education technology products change every 36 months on average, which strains education systems' capacity to adapt (UNESCO, 2023). In South Africa, focus group interviews with teachers and individual interviews with three principals in public primary schools showed that leadership practice remained mostly conventional and called for system-wide support for principals (Dasruth et al., 2024). In two Indonesian elementary schools, limited resources, uneven teacher readiness for digital tools, and little time for reflection recurred as constraints, and the school with a scheduled peer-observation routine scored higher on classroom observation of impact on learning quality than the school relying on individual mentoring (3.6 versus 3.2 on a four-point scale) (Ayuningtias et al., 2026). Multilevel evidence from Taiwan shows that school leadership influences teacher innovativeness directly and indirectly through teacher self-efficacy (Hsieh et al., 2026), and adaptive leadership has been linked to teacher performance through a collaborative school culture (Sumiati et al., 2024). Studies in Malaysia and Turkey likewise examined the effects of principals' digital leadership on teachers' digital teaching and teachers' views of principals' digital roles (Hamzah et al., 2021; Karakose et al., 2021), and work in Switzerland associated transformational leadership with teachers' technology integration (Schmitz et al., 2023).

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In the Philippines, a survey of 520 public school teachers across 16 regions during the pandemic found a satisfactory level of school heads' digital leadership, and this leadership predicted teachers' job satisfaction (Tanucan et al., 2022). A later survey of 386 school leaders found that digital leadership varied with age, gender, years of service, educational attainment, school location, and school type, with higher levels among leaders in urban or private schools (Tanucan et al., 2023). A qualitative study of six principals in Manila reported that effective digital leaders combined visionary leadership, collaborative management, adaptability, and strategic resource allocation, and that they faced limited funding, resistance to change, and gaps in digital skills (Baldera et al., 2025). In Lambayong, Sultan Kudarat, school heads showed high communication competence in digital settings, with independent troubleshooting and real-time data access as areas for improvement (Dalgan, 2025). In Buluan District, BARMM, a study of 10 school heads and 160 elementary teachers found high digital leadership but only a weak, non-significant relationship with teachers' technology integration ($\tau = 0.14$, $p = .587$), indicating that leadership alone is insufficient without supportive conditions such as ICT infrastructure, professional development, and mentoring (Dupa, 2026). These findings are consistent with the national infrastructure gaps documented by Navarro (2024).

Studies within the Division of Bukidnon point in the same direction. Among administrators in Damulog South and Maramag II, work adaptability, leadership competence, and digital fluency were positively related, and problem-solving skills and supportive leadership were the best predictors of digital fluency (De Los Reyes & Paglinawan, 2024). In the Baungon districts, a validated questionnaire administered to 289 respondents found that equity and access ranked highest among the challenges of technology integration while infrastructure and resources ranked lowest, and interviews highlighted educators' innovative strategies (Celeste & Osias, 2024). These studies rely mainly on respondent ratings. No local study located by the author documents the testimonies of elementary school heads in Quezon, Bukidnon.

The literature shows that digital leadership matters, that conditions for it are unequal, and that leadership alone does not guarantee technology integration. What remains unexplored is how elementary school heads in a rural municipality experience and navigate the adaptive demands of digital transformation in their own words. This qualitative study therefore explores adaptive digital leadership among elementary school heads in the Quezon I, II, III, and IV Districts, Division of Bukidnon, during School Year 2026–2027, to provide contextually grounded insights for leadership development, institutional planning, and sustainable digital transformation.

Methodology

Research Design

The study employed a qualitative phenomenological research design to explore the lived experiences and testimonies of elementary school heads in practicing adaptive digital leadership, examining how they experienced digital transformation, adapted leadership practices, supported teachers, made technology-related decisions, and addressed digital challenges. An interpretive phenomenological approach (Smith et al., 2009) was used to understand the meanings school heads attached to their experiences within their school contexts. Phenomenology suits the study because it seeks the shared meaning of an experience rather than its frequency (Creswell & Poth, 2018). Participants were selected through purposive sampling, focusing on elementary school heads with direct experience in managing digital technologies and initiatives. Data were collected through in-depth, semi-structured interviews and analyzed thematically.

Research Locale

The study was conducted in the Quezon I, Quezon II, Quezon III, and Quezon IV Districts under the Schools Division of Bukidnon, all located in the Municipality of Quezon, Bukidnon. The four districts are geographically distributed across the northern, western, southern, and eastern parts of the municipality and comprise 48 elementary, 4 secondary, and 8 integrated schools. The locale was chosen because the four districts share one municipal context while differing in geography and school conditions, which allows variation across school settings within a single local government unit.

Research Participants

The participants were sixteen (16) elementary school heads from the Quezon I, II, III, and IV Districts, Division of Bukidnon, selected through purposive sampling based on their direct experience in adaptive digital leadership. They were qualified if they were currently serving as school heads, had direct responsibility for school leadership and management, had experience implementing or managing digital technologies and initiatives, and were willing to provide detailed testimonies. Following the reviewer's recommendation, the sample was set at four participants per district so that each district is equally represented (Table 1, presented in the Results and Discussion section). A sample of this size is consistent

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with empirical evidence that saturation was reached within about 9 to 17 interviews in studies of relatively homogeneous groups (Guest et al., 2006; Hennink & Kaiser, 2022). The participants share a role and a context, and the study seeks depth and richness of testimonies rather than statistical generalizability. Data saturation was considered achieved when subsequent interviews produced no substantially new meanings or themes. Participants were coded KI1 to KI16 to ensure confidentiality.

Research Instrument

A semi-structured, open-ended interview guide was used because the study sought rich accounts of how school heads experienced and interpreted adaptive digital leadership while covering the same topics with every participant. The guide was developed following the five phases proposed by Kallio et al. (2016): identifying the prerequisites for using semi-structured interviews, retrieving and using previous knowledge, formulating the preliminary guide, pilot testing it, and presenting the complete guide. In the first phase, the researcher determined that a semi-structured format fits a study that needs in-depth, experience-based accounts rather than ratings. In the second phase, previous knowledge was drawn from three sources: Heifetz's adaptive leadership framework (Heifetz, 1994; Heifetz & Laurie, 1997), which separates technical problems from adaptive challenges; digital and technology leadership studies (Anderson & Dexter, 2005; Sheninger, 2019); and the Philippine Professional Standards for School Heads (DepEd, 2020), which describe the leadership and professional-learning expectations of the participants' role. Empirical studies on Philippine school heads (Baldera et al., 2025; Tanucan et al., 2022), on infrastructure (Navarro, 2024), and on technology integration challenges in Bukidnon (Celeste & Osias, 2024) shaped the probing questions on infrastructure, teacher readiness, and stakeholder access. In the third phase, the four research questions became the four main interview questions, each anchored on a construct from these sources (Table 2, presented in the Results and Discussion section), and open-ended probes were added to elicit examples, decisions, and reflections. In the fourth phase, the draft guide was reviewed by experts for clarity and alignment with the research questions and was pilot tested with 5 school heads outside the study sample . In the fifth phase, the complete guide was finalized (Table 2). Each main question was followed by probing questions as needed.

Data Gathering Procedure

The researcher first secured the necessary permissions from the Schools Division of Bukidnon and the concerned Quezon I–IV District offices. Using the validated semi-structured interview guide, in-depth interviews were conducted with the sixteen purposively selected elementary school heads who met the inclusion criteria. Participants provided informed consent, and interviews were conducted privately, audio-recorded with permission, and supported by field notes. The recordings were transcribed verbatim, reviewed for accuracy, and validated through member checking. Data collection continued until saturation was achieved.

Results and Discussion

Study Setting, Participants, and Interview Guide

Figure 1 shows the Municipality of Quezon, Bukidnon, where the Quezon I, II, III, and IV Districts are located.

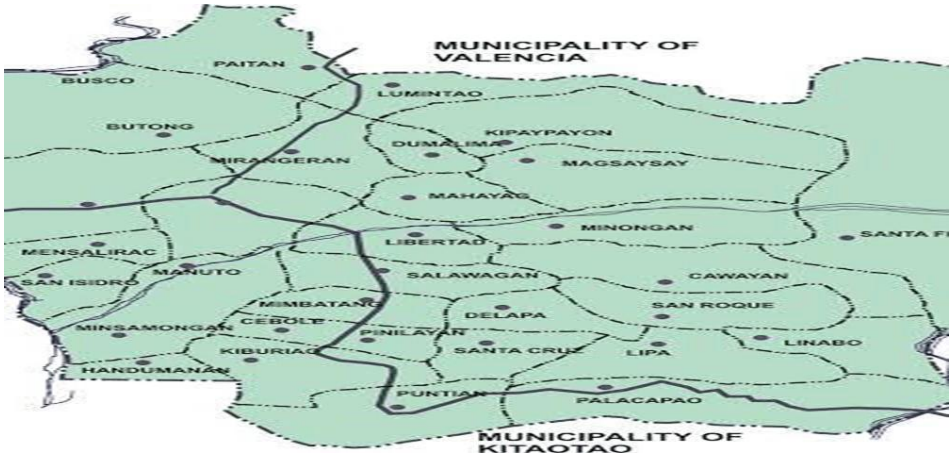


Figure 1: *Map of the Municipality of Quezon, Bukidnon*

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Table 1 shows that the sixteen participants were distributed equally across the four districts, with four school heads per district.

Table 1. Distribution of participants by district

District	Number of participants
1. Quezon I District	4
2. Quezon II District	4
3. Quezon III District	4
4. Quezon IV District	4
Total	**16**

Table 2 shows how each of the four main interview questions was anchored on a construct and on supporting sources.

Table 2. Basis of the interview guide questions

Main interview question	Construct and theoretical basis	Supporting sources
1. What reasons led you to adopt adaptive digital leadership in your school?	Motivations for change; adaptive leadership starts by recognizing that existing ways of working no longer fit	Heifetz & Laurie (1997); Anderson & Dexter (2005); DepEd (2020)
2. What challenges did you encounter in adopting adaptive digital leadership?	Technical problems versus adaptive challenges; infrastructure, teacher readiness, and stakeholder access	Heifetz (1994); Celeste & Osias (2024); Navarro (2024); Ayuningtias et al. (2026)
3. How did you manage these challenges?	Mobilizing people, experimenting, and building teacher capacity; digital leadership practices	Heifetz et al. (2009); Sheninger (2019); Baldera et al. (2025)
4. What are your recommendations to other elementary school heads?	Reflection and professional development of school heads	DepEd (2020); Tanucan et al. (2022)

Table 3. Summary of emerging themes and categories

Research question	Emerging theme	Categories
1. Reasons for adopting	Adaptive digital leadership as a catalyst for responsive and future-ready school transformation	Digital transformation of school operations; responsiveness to educational needs and change; strengthening people, collaboration, and stakeholder engagement; innovation, resource optimization, and future readiness
2. Challenges	Navigating interconnected barriers toward sustainable digital transformation	Human capacity and readiness; technological and infrastructural barriers; resource and organizational constraints; stakeholder and digital inclusion challenges; sustainability and effectiveness
3. Managing challenges	Adaptive and collaborative leadership for sustainable digital transformation	Building digital capacity; resourceful management of digital constraints; responsive and participative change management; ensuring continuity and inclusion; responsible and purposeful technology use
4. Recommendations	People-centered and strategic adaptive leadership for sustainable digital transformation	Transformational and self-directed digital leadership; participative and capacity-building leadership; strategic and context-responsive digital planning; resourceful, secure, and sustainable digital management; people-centered and purpose-driven digital transformation

Research Question 1: What reasons led you to adopt adaptive digital leadership in your school?

Emerging theme: Adaptive Digital Leadership as a Catalyst for Responsive and Future-Ready School Transformation

The testimonies revealed that school heads adopted adaptive digital leadership in response to changing demands in school operations, teaching and learning, communication, collaboration, and educational management. Technology was viewed as an essential means of improving efficiency, supporting teachers and learners, strengthening stakeholder engagement, and enabling data-informed decisions. Adaptation was driven by internal needs (improving processes, maximizing resources, professional learning) and external demands (technological developments, institutional expectations, changing communication practices, and disruptions such as the COVID-19 pandemic). School heads thus viewed digital transformation as a future-oriented response that keeps schools responsive, resilient, and innovative, reflected in the overarching theme "Adaptive Digital Leadership as a Catalyst for Responsive and Future-Ready School Transformation."

1.1 Digital transformation of school operations

KI1: "Technology was already becoming part of the daily work of teachers and learners. As a school principal, I needed to understand these changes and guide my teachers in using technology effectively for teaching, communication, and school management."

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KI2: "One of the main reasons was the increasing need for faster and more efficient communication."

KI5: "I saw the potential of technology to improve the teachers' work... I wanted to make our work more organized and efficient."

KI10: "Having timely and organized data helped me make better decisions regarding teachers, learners, programs, and school priorities."

1.2 Responsiveness to educational needs and change

KI3: "I was encouraged to adapt because of the different needs of our learners... I felt that the school should also adapt so that learning would become more relevant and responsive to their experiences."

KI4: "The COVID-19 pandemic was a major reason why I became more open to digital leadership... we had to find alternative ways to communicate, monitor teachers, and continue providing learning opportunities."

KI6: "My reason was the increasing expectations from the Department of Education regarding the use of technology in teaching, reporting, monitoring, and school management."

KI13: "My reason was the need to respond to unexpected situations and changes... Digital leadership gave us another way to continue our programs and services when normal school practices were difficult to implement."

1.3 Strengthening people, collaboration, and stakeholder engagement

KI7: "I could not expect my teachers to embrace technology if I myself was not willing to learn and use it... I wanted to become an example to my teachers."

KI9: "I adapted digital leadership because of the need to strengthen collaboration among teachers."

KI11: "Our parents and community stakeholders were also becoming more comfortable with digital communication... This made our engagement with stakeholders more immediate."

KI12: "Digital technology could provide more opportunities for professional development... I wanted to create an environment where teachers could continuously learn."

1.4 Innovation, resource optimization, and future readiness

KI8: "The limited resources in our school motivated me to explore digital solutions... we were able to maximize what we had and find alternative ways of accomplishing our school tasks."

KI14: "I adapted digital leadership because I wanted our school to become more innovative... I did not want our school to be left behind."

KI15: "The most important reason for me was the need to prepare our school for the future. Technology will continue to change education, and I believe that school leaders should not wait until they are forced to adapt."

1.5 Discussion

The reasons given by the school heads show that digital leadership began as a response to felt needs rather than to technology itself. Their accounts of communication, data, and workload pressures resemble the starting point of adaptive leadership, in which leaders recognize that familiar ways of working no longer fit changing demands (Heifetz & Laurie, 1997). The pandemic features prominently, as it did among school heads in Manila, who described it as a catalyst that made teachers more open to change (Baldera et al., 2025), and as it did in the pandemic-era DepEd digital initiatives that Tanucan et al. (2022) used to frame Filipino school heads' digital leadership. The wish to lead by example (KI7) and to keep learning (KI15) agrees with the adaptability and continuous learning reported among Manila principals (Baldera et al., 2025). The motivation to maximize limited resources (KI8) is consistent with the strategic resource allocation reported in the same study and with the infrastructure gaps documented nationally (Navarro, 2024).

Research Question 2: What challenges did you encounter in adopting adaptive digital leadership?

Emerging theme: Navigating Interconnected Barriers Toward Sustainable Digital Transformation

The testimonies revealed that adapting digital leadership required school heads to navigate interconnected human, technological, infrastructural, organizational, and resource-related challenges: differences in teachers' digital competencies and readiness, resistance to change, limited training, poor connectivity, inadequate devices and facilities, insufficient technical support, financial constraints, competing workloads, data privacy concerns, and unequal stakeholder access. Successful transformation

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required more than providing technology; it demanded continuous professional development, organizational support, adequate resources, careful evaluation, and attention to human readiness. Overall, adaptive digital leadership meant balancing technological opportunities with resources, stakeholder needs, and organizational realities, reflected in the overarching theme "Navigating Interconnected Barriers Toward Sustainable Digital Transformation."

2.1 Human capacity and readiness

KI1: "One of the challenges I encountered was the different levels of digital skills among my teachers." This shows that school heads had to address differences in teacher readiness.

KI4: "Some teachers were hesitant to change their usual practices." This illustrates resistance to digital change; technological adaptation also involved managing human behavior and attitudes.

KI15: "I also had to consider the teachers' workload, skills, available resources, and willingness to change." This shows that organizational readiness and human capacity were central to digital transformation.

2.2 Technological and infrastructural barriers

KI2: "Internet connectivity was one of our major problems." Unreliable connectivity could directly disrupt digital leadership practices.

KI3: "I experienced difficulty in providing enough digital devices for teachers and learners." This supports limited access to technology as a barrier.

KI5: "Another challenge was the lack of technical support." Having technology available was insufficient without people capable of maintaining and troubleshooting it.

KI11: "Some of our school facilities were not sufficient to support digital leadership." Adequate infrastructure is important in sustaining digital transformation.

KI14: "There were instances when presentations would not open, internet connections would suddenly stop, or equipment would malfunction." Technical disruptions could interfere with school operations.

2.3 Resource and organizational constraints

KI6: "Managing my time became difficult because adapting digital leadership required me to learn new platforms while also attending to my regular administrative responsibilities." This shows the tension between digital leadership demands and existing administrative workload.

KI7: "Financial limitations affected our ability to adopt digital technologies." This reflects the financial capacity needed to sustain digital initiatives.

2.4 Stakeholder and digital inclusion challenges

KI8: "One challenge was maintaining data privacy and security." Digital transformation introduced new responsibilities related to information protection.

KI9: "Some parents were responsive to online messages, others had limited digital skills or did not regularly check their accounts." This illustrates the digital divide among stakeholders and the need for alternative communication mechanisms.

2.5 Sustainability and effectiveness

KI10: "Keeping up with the rapid changes in technology was challenging." Digital leadership was a continuing process requiring lifelong learning and adaptability.

KI12: "Sometimes teachers needed hands-on training and follow-up assistance rather than simply attending a webinar." Digital capacity building required sustained and context-sensitive professional development.

KI13: "Using technology does not automatically mean that it improves teaching or school management."

2.6 Discussion

Read through Heifetz's distinction, the challenges fall into two groups. Poor connectivity, insufficient devices, inadequate facilities, and limited technical support are largely technical problems, because their solutions are known and depend on resources and expertise (Heifetz, 1994). Their scale is structural: only 1.8% of 47,421 public schools had free Wi-Fi as of September 2022 (Philippine Daily Inquirer, 2024), and Philippine schools have low computer and internet access compared with neighboring countries (Navarro, 2024). Differences in teacher skills, hesitation to change practice, workload, and unequal parent access are closer to adaptive challenges, because they ask people to change habits and expectations. The two groups interact, as Ayuningtias et al. (2026) observed in Indonesian elementary schools, where limited resources, uneven readiness for digital tools, and little time for reflection constrained the adaptive work of school heads.

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The survey in Baungon likewise found equity and access to be the highest-rated challenge (Celeste & Osias, 2024), which matches the digital divide among parents described by KI9. KI5's lack of technical support parallels the weakness in independent troubleshooting among school heads in Lambayong (Dalgan, 2025). The data privacy concern raised by KI8 is also reflected globally: UNESCO (2023) reported that 89% of 163 education technology products recommended during the pandemic could survey children.

Research Question 3: How did you manage these challenges?

Emerging theme: Adaptive and Collaborative Leadership for Sustainable Digital Transformation

The testimonies revealed that school heads managed digital leadership challenges through adaptive, collaborative, resourceful, and supportive practices. They strengthened teachers' digital competencies through mentoring, demonstrations, training, hands-on practice, and continuous learning, and maximized limited resources through equipment sharing, prioritization, and stakeholder support. They implemented changes gradually, consulted teachers, considered workloads, maintained open communication, and prepared alternatives such as offline materials when technology was unreliable. They promoted inclusive engagement by combining digital and traditional communication and emphasized responsible technology use through data privacy, technical support, monitoring, and purposeful application. Overall, sustainable digital transformation depends on leaders' ability to develop people, mobilize resources, manage change, and foster an inclusive and resilient school, reflected in the theme "Adaptive and Collaborative Leadership for Sustainable Digital Transformation."

3.1 Building digital capacity

KI1: "I managed the differences in teachers' digital skills by providing peer support and encouraging teachers who were more knowledgeable in technology to assist their colleagues."

KI10: "I addressed the rapid changes in technology by continuously learning... I realized that as a school leader, I also needed to be a lifelong learner."

KI12: "I gave teachers opportunities to practice what they had learned and allowed them to ask questions."

School heads developed both their own competencies and those of their teachers.

3.2 Resourceful management of digital constraints

KI3: "We maximized the resources that were already available in the school... and coordinated with stakeholders to seek additional devices and other forms of assistance."

KI7: "We focused first on the most important digital needs of the school... [and] coordinated with the PTA, local government, alumni, and other stakeholders."

KI11: "We maximized what we had and implemented digital activities based on our actual capacity."

These responses show resourcefulness, prioritization, and stakeholder collaboration.

3.3 Responsive and participative change management

KI4: "I managed resistance to change by introducing digital practices gradually... I also listened to their concerns and allowed them time to adjust."

KI15: "I consulted them before introducing major changes, considered their workload, provided support, and implemented digital practices step by step."

These are particularly strong evidence of adaptive and participative leadership.

3.4 Ensuring continuity and inclusion

KI2: "When internet connectivity became a problem, we prepared alternative ways of doing our work."

KI9: "I used a combination of digital and traditional communication with parents."

KI14: "I learned to always prepare a backup plan whenever we had technology-dependent activities."

School heads developed flexible, inclusive alternatives rather than letting technological problems stop school activities.

3.5 Responsible and purposeful technology use

KI5: "I identified teachers or staff members who had stronger technical skills and asked them to help."

KI8: "We emphasized the importance of strong passwords, proper file sharing, restricted access to confidential documents, and responsible use of social media and online platforms."

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KI6: "I also learned to use digital tools that could simplify administrative work… which eventually helped me save time."

KI13: "I also looked at the outputs they produced and observed whether the technology was actually making teaching and administrative work more efficient."

3.6 Discussion

The strategies of the school heads correspond to what adaptive leadership asks of leaders: mobilizing people to do the learning themselves and allowing gradual experimentation rather than imposing solutions (Heifetz & Laurie, 1997). Peer mentoring, consultation, and step-by-step implementation (KI1, KI4, KI15) resemble the structured empowerment of teachers that Ayuningtias et al. (2026) found most often cited by teachers. In the same study, the school with a scheduled peer-observation routine scored higher on the impact dimension (3.6 versus 3.2 on a four-point scale), which suggests that routines matter as much as intentions. Evidence that collaborative school culture and teacher self-efficacy carry leadership into practice (Hsieh et al., 2026; Sumiati et al., 2024) supports the emphasis these school heads placed on peer support and practice opportunities. Their turn to the PTA, local government, and alumni for devices and assistance (KI3, KI7) is a practical answer to the finding that leadership alone does not secure technology integration when infrastructure and support are weak, as in Buluan District, where school heads' digital leadership showed no significant relationship with teachers' technology integration (Dupa, 2026).

Research Question 4: What are your recommendations to other elementary school heads?

Emerging theme: People-Centered and Strategic Adaptive Leadership for Sustainable Digital Transformation

The five categories converge into the overarching theme "People-Centered and Strategic Adaptive Leadership for Sustainable Digital Transformation." The recommendations emphasize that adaptive digital leadership goes beyond introducing technology; it requires leaders to lead by example, develop people, engage stakeholders, assess readiness, manage resources strategically, protect digital information, prepare for disruptions, and continuously evaluate initiatives, so that technology serves educational goals through adaptability, collaboration, strategic planning, resourcefulness, accountability, and people-centered leadership.

4.1 Transformational and self-directed digital leadership

The participants emphasized that school heads should personally demonstrate willingness to learn and adapt to technology.

KI1 stated: "If we want our teachers to embrace technology, we should also be willing to learn and use digital tools ourselves." This demonstrates leading by digital example: teachers are more likely to accept change when leaders show confidence and willingness to learn.

Similarly, KI3 emphasized continuous learning: "Technology changes very quickly, so attending webinars, training sessions, and learning communities can help school leaders and teachers improve their digital competencies."

KI14 reinforced the importance of adaptability: "Digital leadership requires flexibility because technology continues to evolve." Together, these responses indicate that the school head functions not only as an administrator but also as a continuous learner and role model for organizational change.

4.2 Participative and capacity-building leadership

The participants also highlighted the importance of involving and supporting teachers during digital transformation.

KI5 stated: "There are teachers who are already skilled in technology and can share their knowledge with colleagues." This illustrates the value of peer collaboration and distributed expertise within the school.

Meanwhile, KI11 emphasized participatory decision-making: "Listen to teachers before making digital decisions. Consultation is important because teachers are the ones who will use many of these technologies in their daily work."

KI4 further recommended gradual implementation: "Start with simple and useful applications, allow teachers to practice, and provide support until they become confident." Successful digital transformation should not be imposed from the top; school heads should consult teachers, recognize existing expertise, provide opportunities for practice, and implement changes progressively.

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4.3 Strategic and context-responsive digital planning

Another important dimension was aligning digital initiatives with the actual context and capacity of the school.

KI2 stated: "Before introducing new technologies, we should know what devices, internet facilities, skills, and support systems are already available so that our plans are realistic." This indicates that digital leadership requires organizational readiness assessment and context-sensitive planning.

Likewise, KI9 cautioned that technology should not unnecessarily increase teachers' workload: "Digital tools should make work easier and more efficient, not simply add more requirements."

KI13 emphasized evaluation: "We should not adopt technology simply because it is modern." Adaptive digital leadership involves asking whether a technology is appropriate, feasible, useful, sustainable, and beneficial before institutionalizing it.

4.4 Resourceful, secure, and sustainable digital management

The participants recognized that digital transformation is affected by financial, technological, and infrastructural limitations.

KI7 stated: "We should communicate with the local government, parents, alumni, private organizations, and other partners who may be willing to help." This demonstrates the importance of stakeholder partnerships and resource mobilization.

Similarly, KI8 recommended: "We can maximize existing equipment, use free educational applications, and develop simple digital solutions that fit the situation of our school." Digital transformation therefore does not necessarily require expensive technologies; it requires creative and strategic use of available resources.

Security was also emphasized by KI6: "We have a responsibility to protect the personal information of learners, teachers, and parents."

Meanwhile, KI10 highlighted sustainability and continuity: "We should prepare offline files, printed materials, or other strategies so that school operations can continue." These responses show that adaptive digital leadership must include not only innovation but also resourcefulness, cybersecurity, risk management, and continuity planning.

4.5 People-centered and purpose-driven digital transformation

The strongest expression of the overarching theme appears in the recommendation of KI15, who stated: "Most importantly, I recommend putting people before technology."

The participant further explained: "Digital transformation should remain focused on improving the experiences of teachers, learners, parents, and the community." This response best represents the overarching theme: technology must serve people and educational objectives.

This idea is complemented by KI12, who recommended using digital technologies for both instructional and managerial purposes: "Digital records, communication platforms, data systems, and online collaboration tools can help us make decisions more quickly and based on reliable information." Digital transformation is thus valuable when it contributes to better teaching, learning, communication, management, and decision-making.

4.6 Discussion

The recommendation to put people before technology agrees with the Global Education Monitoring Report, which found little robust evidence of the added value of digital technology in education and warned against investing in technology without making sure that learning improves (UNESCO, 2023). KI13's advice not to adopt technology merely because it is modern reflects the same concern. The call to consult teachers and assess readiness before introducing tools corresponds to the participatory and collaborative practices reported among Manila principals (Baldera et al., 2025) and to the careful sequencing of change seen in Indonesia (Ayuningtias et al., 2026). The emphasis on continuous learning and training supports the recommendation of Tanucan et al. (2022) that training programs be provided to strengthen school heads' digital leadership, and the call of Tanucan et al. (2023) for support regardless of leaders' backgrounds.

5. Integrated Discussion: Technical and Adaptive Work in Digital Leadership

Taken together, the four themes show that the school heads treated digital leadership as work with people more than work with devices. Technical barriers such as connectivity, equipment, and technical support were real and are well documented (Navarro, 2024; Philippine Daily Inquirer, 2024), but the school heads' most frequent responses were adaptive: peer mentoring, consultation, gradual change, and continuous learning. This pattern supports Heifetz's argument that leaders make progress by helping people learn new ways of working (Heifetz & Laurie, 1997), and it adds detail to Technology Leadership Theory, which holds that leadership matters alongside infrastructure (Anderson & Dexter, 2005), by showing how leadership operates when infrastructure is limited.

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The findings also add depth to survey-based work in the Philippines. Studies that rate school heads' digital leadership or fluency show whether leadership is present and how strongly it relates to outcomes (De Los Reyes & Paglinawan, 2024; Dupa, 2026; Tanucan et al., 2022). The testimonies here explain how school heads act when resources are scarce and teacher readiness varies, and why leadership alone was not enough without stakeholder partnerships and technical support. In this way, adaptive digital leadership in the Quezon districts combines technical fixes, such as resource sharing and backup plans, with adaptive work, such as consultation, peer learning, and a shared purpose.

Ethical Considerations

The study observed the ethical principles of respect for persons, beneficence, and justice, as well as the applicable Department of Education (DepEd) research guidelines. Before data collection, permission was obtained from the Schools Division of Bukidnon and the Quezon I–IV District offices in accordance with DepEd Order No. 16, s. 2017. Participation was voluntary, and informed consent was secured from all participants before the interviews. They were informed about the study's purpose, interview procedures, audio recording, and expected duration, as well as their right to decline any question or withdraw from the study without consequences to their professional positions. To minimize potential power-related concerns, participants were assured that their responses would not be used for performance evaluation or administrative decisions. Interviews were conducted privately at mutually agreed times and locations. Confidentiality was maintained in accordance with the Data Privacy Act of 2012 (Republic Act No. 10173). Participants were assigned codes (KI1–KI16), and identifying information, including names and school affiliations, was excluded from transcripts and research reports. Audio recordings, transcripts, and field notes were stored in password-protected files accessible only to the researcher. The study involved minimal anticipated risk, provided no financial incentives, and did not intentionally collect sensitive personal information. Member checking was conducted by returning interview transcripts to participants for verification of accuracy and completeness. In reporting the findings, participants' statements were presented faithfully, with appropriate anonymization, to preserve the integrity of their accounts.

Conclusions

The findings indicate that adaptive digital leadership is fundamentally a people-centered and strategic process of school transformation. While school heads recognized technology's importance in improving operations, communication, teaching and learning, collaboration, and decision-making, they also acknowledged the influence of teacher readiness, resources, infrastructure, stakeholder needs, and changing educational demands. Successful adaptation required flexibility, collaboration, continuous learning, resourcefulness, participative decision-making, and strategic management of challenges. The school heads' roles extended beyond technology adoption to include being visionary leaders, facilitators, learners, collaborators, and change agents who strengthened teacher capacity, maximized resources, engaged stakeholders, implemented changes gradually, prepared alternatives, protected digital information, and evaluated initiatives. Thus, "People-Centered and Strategic Adaptive Leadership for Sustainable Digital Transformation" best captures their experiences, balancing innovation with human needs, organizational readiness, educational purpose, inclusivity, and continuous improvement. Overall, digital transformation should remain people-centered, inclusive, sustainable, and educationally purposeful.

Recommendations

Based on the findings, elementary school heads are encouraged to strengthen adaptive digital leadership by modeling appropriate technology use, continuously developing digital competencies, and implementing initiatives according to school readiness, needs, and resources. Teachers should actively participate in professional development, peer mentoring, and consultations on digital initiatives. Schools should develop systematic digital transformation plans addressing readiness, infrastructure, connectivity, technical support, data privacy, and contingency measures, while engaging stakeholders and community partners for resources, equipment, connectivity, and professional support. The Department of Education and policymakers are encouraged to provide sustained, context-sensitive training and stronger support for infrastructure, connectivity, technical assistance, cybersecurity, data privacy, and equitable digital access. Future researchers may expand the inquiry across different contexts and employ quantitative, mixed-methods, or longitudinal approaches to examine the relationship between adaptive digital leadership and teacher competence, organizational effectiveness, instructional quality, stakeholder engagement, and learner outcomes.

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https://ijroms.com
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References

Alene, A. A., Tsegaye, M. A., & Wolle, G. S. (2025). Secondary school principals' adaptive leadership practices amid the quality education crisis in Amhara regional state, Ethiopia. Social Sciences & Humanities Open, 11, Article 101349. https://doi.org/10.1016/j.ssaho.2025.101349

Anderson, R. E., & Dexter, S. L. (2005). School technology leadership: An empirical investigation of prevalence and effect. Educational Administration Quarterly, 41(1), 49–82. https://doi.org/10.1177/0013161X04269517

Australian Embassy in the Philippines. (2020, October 5). DepEd continues to drive improvements to teaching quality with new standards for school leaders [Media release]. https://philippines.embassy.gov.au/mnla/medrel20201005.html

Ayuningtias, L. Y., Harjito, & Abdullah, G. (2026). Adaptive leadership strategies of school principals in improving learning quality in elementary schools of Ketanggungan, Brebes. ARMADA: Jurnal Penelitian Multidisiplin, 4(8), 4527–4535. https://doi.org/10.55681/armada.v4i8.3671

Baldera, P. R., Saunil, C. C., Patiam, A. M. C., Agpaoa, M. K. A. B., Villanueva, E. R., Fontamillas, K. I., Divina, L. V., Pelayo, R., Felipe, R. N., Jr., Mercado, M. T., & Valenzuela, R. M. (2025). Digital leadership pioneers: Navigating outstanding school principals' successes in the evolving educational landscape. International Journal of Learning, Teaching and Educational Research, 24(4), 154–177. https://doi.org/10.26803/ijlter.24.4.8

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

Celeste, R. J., & Osias, N. (2024). Challenges and implementation of technology integration: Basis for enhanced instructional program. American Journal of Arts and Human Science, 3(2), 106–130. https://doi.org/10.54536/ajahs.v3i2.2656

Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. Frontiers in Psychology, 10, Article 1938. https://doi.org/10.3389/fpsyg.2019.01938

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

Dalgan, B. (2025). Digital literacy in educational leadership: School head's communication competence and work performance. Psychology and Education: A Multidisciplinary Journal, 41(1). https://ejournals.ph/article.php?id=28431

Dasruth, J., Naicker, S. R., & Smith, C. (2024). Teachers' perceptions of principals' digital leadership practices in a school district in a developing country. Social Sciences & Humanities Open, 10, Article 101192. https://doi.org/10.1016/j.ssaho.2024.101192

De Los Reyes, M. A., & Paglinawan, J. L. (2024). Work adaptability and leadership competence on the digital fluency of school administrators. International Journal of Research and Innovation in Social Science, 8(14), 417–431. https://doi.org/10.47772/IJRISS.2024.814MG0035

Department of Education. (2017). DepEd Order No. 16, s. 2017: Research management guidelines. Republic of the Philippines.

Department of Education. (2020). DepEd Order No. 24, s. 2020: National adoption and implementation of the Philippine Professional Standards for School Heads. Republic of the Philippines. https://www.deped.gov.ph/wp-content/uploads/2020/09/DO_s2020_024-.pdf

Dexter, S., & Richardson, J. W. (2020). What does technology integration research tell us about the leadership of technology? Journal of Research on Technology in Education, 52(1), 17–36. https://doi.org/10.1080/15391523.2019.1668316

Dupa, D. R. M. (2026). Digital leadership practices and teachers' technology integration in Buluan District, BARMM: A descriptive-correlational study. Journal of Interdisciplinary Perspectives, 4(4). https://www.ejournals.ph/article.php?id=33951

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

Hamzah, N. H., Nasir, M. K. M., & Wahab, J. A. (2021). The effects of principals' digital leadership on teachers' digital teaching during the COVID-19 pandemic in Malaysia. Journal of Education and e-Learning Research, 8(2), 216–221. https://doi.org/10.20448/journal.509.2021.82.216.221

Heifetz, R. A. (1994). Leadership without easy answers. Belknap Press of Harvard University Press.

Heifetz, R. A., Grashow, A., & Linsky, M. (2009). The practice of adaptive leadership: Tools and tactics for changing your organization and the world. Harvard Business Press.

Heifetz, R. A., & Laurie, D. L. (1997). The work of leadership. Harvard Business Review, 75(1), 124–134.

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https://ijroms.com
Original Article

Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. Social Science & Medicine, 292, Article 114523. https://doi.org/10.1016/j.socscimed.2021.114523

Hsieh, C.-C., Tai, S.-E., & Li, H.-C. (2026). Impact of school leadership on teacher innovativeness: Evidence from multilevel analysis of Taiwan TALIS 2018. Asia Pacific Journal of Education, 46(3), 835–852. https://doi.org/10.1080/02188791.2024.2397040

Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. Journal of Advanced Nursing, 72(12), 2954–2965. https://doi.org/10.1111/jan.13031

Karakose, T., Polat, H., & Papadakis, S. (2021). Examining teachers' perspectives on school principals' digital leadership roles and technology capabilities during the COVID-19 pandemic. Sustainability, 13(23), Article 13448. https://doi.org/10.3390/su132313448

Navarro, A. M. (2024). School infrastructure in the Philippines: Where are we now and where should we be heading? (Research Paper Series No. 2024-06). Philippine Institute for Development Studies. https://www.pids.gov.ph/publication/research-paper-series/school-infrastructure-in-the philippines-where-are-we-now-and-where-should-we-be-heading

OECD. (2023). PISA 2022 results (Volume II): Learning during—and from—disruption. OECD Publishing. https://doi.org/10.1787/a97db61c-en

Philippine Daily Inquirer. (2024, July 16). CitizenWatch: Boost internet connectivity for PH schools. Inquirer.net. https://technology.inquirer.net/135831/citizenwatch-boost-ph-school-internet

Republic Act No. 10173. (2012). Data Privacy Act of 2012. Republic of the Philippines.

Schmitz, M.-L., Antonietti, C., Consoli, T., Cattaneo, A., Gonon, P., & Petko, D. (2023). Transformational leadership for technology integration in schools: Empowering teachers to use technology in a more demanding way. Computers & Education, 204, Article 104880. https://doi.org/10.1016/j.compedu.2023.104880

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. Education for Information, 22(2), 63–75. https://doi.org/10.3233/EFI-2004-22201

Sheninger, E. (2019). Digital leadership: Changing paradigms for changing times (2nd ed.). Corwin.

Smith, J. A., Flowers, P., & Larkin, M. (2009). Interpretative phenomenological analysis: Theory, method and research. SAGE Publications.

Sumiati, S., Kurniady, D. A., Komariah, A., Suryana, A., Dadi, D., & Hafidh, Z. (2024). Linking principal adaptive leadership to teacher performance: The mediating effect of collaborative school culture. Journal of Social Studies Education Research, 15(4), 17–41.

Tanucan, J. C. M., Negrido, C. V., & Malaga, G. N. (2022). Digital leadership of school heads and job satisfaction of teachers in the Philippines during the pandemic. International Journal of Learning, Teaching and Educational Research, 21(10). https://doi.org/10.26803/ijlter.21.10.1

Tanucan, J. C. M., Negrido, C. V., Uytico, B. J., & Wider, W. (2023). Socio-demographic determinants of Filipino school leaders' digital leadership. International Journal of Education and Practice, 11(4), 871–885. https://doi.org/10.18488/61.v11i4.3541

Trenerry, B., Chng, S., Wang, Y., Suhaila, Z. S., Lim, S. S., Lu, H. Y., & Oh, P. H. (2021). Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. Frontiers in Psychology, 12, Article 620766. https://doi.org/10.3389/fpsyg.2021.620766

UNESCO. (2023). Global education monitoring report 2023: Technology in education—A tool on whose terms? UNESCO. https://doi.org/10.54676/UZQV8501

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