UNVEILING NARRATIVES OF TEACHERS' JOURNEY IN MULTIMEDIA INTEGRATION PRACTICES: A PHENOMENOLOGICAL ANALYSIS

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ABSTRACT

This study investigates how elementary teachers in the Kidapawan City Division navigate the integration of multimedia in classrooms amid diverse instructional, technological, and socioeconomic challenges. Using a qualitative narrative design, the research gathered rich stories from ten teachers through individual interviews and focus group discussions. Guided by Multiliteracy Theory and Resilience Theory, the analysis employed Braun and Clarke's thematic framework to identify how teachers adapt their practices to enhance learners' multimedia literacy. Findings reveal that multimedia resources promote visual comprehension, multisensory engagement, interactive learning, and values formation, significantly improving student participation and communication. However, teachers face persistent barriers, including device malfunctions, limited internet access, and financial constraints linked to school policies. Despite these obstacles, teachers demonstrate strong resilience through offline preparation, creative use of alternative materials, careful content curation, and continuous participation in ICT capacity-building programs. Institutional support, including the provision of equipment and professional development, further enables learner-centered digital instruction. The study underscores the need for sustained policy attention and systemic investment to strengthen multimedia integration in remote and underserved contexts. Its insights contribute to global conversations on equitable digital learning, teacher adaptability, and the future of multimedia-enhanced basic education.

Keywords: *Multimedia Integration, Multiliteracy, Phenomenological Analysis, Digital Pedagogy, DepEd Kidapawan-Cotabato*

INTRODUCTION

In today's rapidly evolving digital landscape, elementary learners are constantly surrounded by diverse forms of media, making multimedia literacy an indispensable component of their educational journey. This literacy goes beyond mere interaction with media; it empowers students to critically analyze, evaluate, and create media content (Kargın & Demir, 2023). Developing multimedia literacy at a young age equips learners with the tools to navigate the complex media environment, fostering the ability to recognize the persuasive tactics of advertisements, differentiate between credible information and misinformation, and comprehend the underlying intentions of media messages.

Educators stress the importance of introducing these skills early, as they enhance students' critical thinking and enable them to become responsible creators and consumers of media (Andrews, 2022). Hence, the focus on multimedia literacy in elementary education opens avenues to explore how these foundational skills impact students' cognitive development, decision-making, and media habits, offering rich insights into the formation of media-literate future citizens.

In the study discussed by Hobbs et al. (2022), a statewide survey in Rhode Island revealed significant gaps in media literacy (ML) engagement, with only 27% of respondents indicating that most students participated in ML activities. Engagement in specific areas, such as images and advertising

(17%) and media message influence (21%), was even lower, with storytelling at 29%. Disparities in multimedia integration across school districts were not attributed to geographic or socioeconomic factors, suggesting the presence of other barriers. Teachers identified obstacles such as limited access to technology, student readiness, and academic priorities that often prioritize standardized testing. Community resistance also hindered efforts, highlighting the need for systemic changes to support equitable multimedia integration.

A notable research gap exists in the Department of Education (DepEd) schools in Kidapawan City regarding elementary teachers' experiences integrating multimedia for students in remote areas. Many of these students face socioeconomic barriers that limit access to multimedia resources, affecting their ability to develop vital viewing skills (Costan et al., 2021). This qualitative study examines how teachers modify their instructional approaches and practices to create and maintain an inclusive learning environment, enabling students to engage with multimedia content despite these challenges. Highlighting teachers' innovative approaches, the research will deepen understanding of the relationship between educational practices and learners' socioeconomic realities.

With this in mind, the study of DepEd elementary teachers' journeys in nurturing learners' multimedia integration practices in Kidapawan City is deemed necessary to understand the challenges and successes of integrating digital tools in education. The research aims to inform policy and practice by uncovering these narratives through dialogue in local and international forums. The intention to publish these findings reflects a commitment to sharing insights that can empower teachers and enhance student learning across diverse contexts.

METHODS

Research design

The researcher employed a qualitative research design, specifically a phenomenological approach. Phenomenology focuses on the exploration and understanding of individuals' lived experiences of a particular phenomenon (Mapp, 2008; Dodgson, 2023). This approach aims to capture the essence and meaning of participants' experiences as they perceive and interpret them.

In this study, the phenomenological design was used to examine the shared experiences of elementary teachers in guiding their learners in navigating multimedia to develop alpha learners. Through in-depth descriptions of their experiences, perceptions, and practices, the study seeks to understand the common themes and meanings that emerge from teachers' lived realities. These collective experiences provide valuable insights into how teachers consciously and thoughtfully integrate multimedia into the learning process.

Procedures

To gather accurate and meaningful data, the researcher first ensures that the interview questions are valid and appropriate for the study. Experts in multimedia literacy reviewed these questions to ensure they accurately capture DepEd elementary teachers' experiences with multimedia literacy instruction. The questions were validated, and the researcher obtained informed consent from all participants, explained the purpose of the study and the nature of participation, and ensured that participants could withdraw at any time without negative consequences.

The primary method for data collection was in-depth, one-on-one interviews with ten (10) selected teachers. These interviews were semi-structured, providing a set of guiding questions while allowing participants to share their thoughts, experiences, and stories in their own words. This open format encourages teachers to reflect deeply on their practices and challenges.

The researcher ensured that the interview setting was comfortable and respectful, thereby creating an atmosphere in which participants felt safe and heard. Through these interviews, the researcher aims to gather rich insights into how teachers integrate multimedia literacy into their teaching practices and how these practices impact students' abilities. The data helped assess the impact of integrating multimedia literacy on students' skills and learning outcomes.

RESULTS AND DISCUSSIONS

This chapter presents findings that show that multimedia integration significantly enhances learner engagement, comprehension, and real-world application of lessons, despite ongoing technical, infrastructural, and financial challenges; teacher adaptability and institutional support are vital for maintaining effective multimedia-based instruction.

Themes Emerged in Integrating Multimedia Practices with Learners

Many studies have consistently shown that teaching strategies play an essential role in students' engagement, which contributes to their performance in school. Student learning experiences in the classroom are shaped primarily by effective teachers' instruction (Dursun & Aykan, 2025). As the education system continues to evolve, classroom instruction and teaching strategies also continue to adapt to the needs of 21st-century learners. The goal of today's education system is to develop the knowledge and skills of young individuals to compete in a modern society (Ali *et al.,* 2024). This development recognizes the use of technology and integrates such innovation into the educational curriculum.

This study recognizes that integrating multimedia in the classroom is an engaging and effective tool for teaching and learning, particularly at the elementary level, where teachers work with young learners. Multimedia learning technologies have become essential tools for enhancing both teaching and learning processes (Alzubi, 2023; Almacen & Labitad, 2024). These technologies engage students in diverse and interactive ways, making the learning environment more dynamic, participatory, and effective. The goal of this integration is to develop and enhance students' multimedia literacy, enabling them to better understand sounds, videos, and creative presentations as learning tools.

As defined by Malhotra and Verma (2020), multimedia is a medium for presentation that uses text and images. It is generally implicitly incorporated into and merged with various media components, such as sound, animation, text, graphics, and video. Li *et al.* (2021) also defined it as any combination of text, sound, animation, and video delivered by computer or other electronic or digitally manipulated means. It combines digitally manipulated text, photographs, graphic art, sound, animation, and video elements. This emphasizes that integrating multimedia in the classroom is not simple. To make it more effective and engaging, teachers must integrate and adapt these elements to provide a learning tool appropriate for learners and aligned with learning competencies and objectives.

The first objective of this study is to identify the key themes from interviews with DepEd teachers regarding their experiences in nurturing learners' multimedia literacy. The descriptive or qualitative responses of elementary teachers in Kidapawan City Division were analyzed and interpreted from individual interviews. The results generally showed that multimedia is an engaging and effective teaching tool. This supports Bisin and Sumayo's (2024) study, which found that multimedia learning technologies, including digital tools, interactive presentations, and online resources, have the potential to enhance students' learning and engagement with lessons.

Shown in Table 1 are the key themes that emerged based on thematic analysis. Four (4) themes, such as Visual-aided Comprehension, Multi-sensory Learning, Interactive Learning, and Values Integration through Visuals, are the key contributions of multimedia in nurturing students' multimedia literacy.

Table 1. *Multimedia as an Engaging and Effective Teaching Tool.*

Themes	Issues Probed	Codes/Categories	Significant Statement	Interpretations
Visual-Aided Comprehension	How visual materials help learners understand lessons, especially abstract or complex topics	▪ Use of videos and images ▪ Visualization of concepts ▪ Clarity of explanation ▪ Reduced confusion	*"Kung naa'y video sa lesson, dali ra gyud nila masabtan, labi na kung Science."* (IDI_P1) *"Mas klaro ang explanation basta naay visuals kaysa puro talk lang."* (IDI_P2) *"Pag mag-picture or animation, maka-follow gyud ang bata."* (IDI_P3) *"Kung wala'y visual, daghan gyud maglibog sa topic."* (IDI_P4) *"Ang video murag substitute sa actual experience nila."* (IDI_P5)	Visual aids enhance comprehension by making lessons more concrete and easier to process. Videos and images help learners visualize abstract concepts, reduce confusion, and serve as substitutes for real-life experiences, leading to better understanding.
Multi-Sensory Learning Engagement	How combining audio, visual, and other stimuli affects attention and learning	▪ Audio-visual integration ▪ Sensory stimulation ▪ Sustained attention ▪ Learner motivation	*"Mag PowerPoint ko, naa'y video, usahay naa pa'y background music."* (IDI_P2) *"Mas alive ang class kung naay sound ug picture."* (IDI_P3) *"Dili sila dali kapoyon kung daghan stimuli."* (IDI_P1) *"Kung makita ug madunggan nila, mas mo-sink in ang lesson."* (IDI_P4) *"Multimedia helps different types of learners."* (IDI_P5)	Multi-sensory instruction sustains learners' attention and motivation. The combination of visual and auditory elements caters to different learning styles, reduces boredom, and helps lessons become more memorable and engaging.

Interactive Learning through Multimedia	The role of multimedia in promoting participation and confidence	▪ Learner participation ▪ Guided interaction ▪ Classroom engagement ▪ Confidence building	*"After sa video, naa koy questions, sila gyud mo-answer."* (IDI_P1) *"Mas active sila kung naay interactive activity."* (IDI_P2) *"Dili lang sila tan-aw, mo-participate gyud."* (IDI_P3) *"Mas confident sila mo-share kung naa'y guide like video."* (IDI_P4) *"Ang multimedia maka-push nila to engage."* (IDI_P5)	Multimedia encourages active participation by providing structure and prompts for discussion. Learners become more confident and engaged when visual materials guide their responses and interactions in class.
Values Integration through Visual Media	How multimedia supports values and moral education	▪ Values-based videos ▪ Emotional engagement ▪ Moral understanding ▪ Behavior modeling	*"Nagamit ko ug animated video sa values, mas gets nila ang lesson."* (IDI_P3) *"Kung storya lang, usahay dili kaayo sila attentive."* (IDI_P1) *"Pag naa'y video about values, ma-feel gyud nila."* (IDI_P4) *"Mas dali nila ma-relate ang good behavior kung makita."* (IDI_P2) *"Visual stories help them understand moral lessons."* (IDI_P5)	Visual media strengthens values education by creating emotional connection and relatable scenarios. Learners better internalize moral lessons when values are demonstrated visually rather than explained verbally alone.

Visual-aided Comprehension

Multimedia plays a crucial role in fostering visual-aided comprehension by enabling learners to understand lesson content through visualization. The integration of videos, images, and animations in classroom instruction allows students to form concrete mental representations of abstract or complex concepts. Participants in this study consistently reported using video materials during lessons and discussions to provide learners with clearer and more meaningful explanations of the topics being taught. Through visual exposure, learners can imagine instructional content as part of reality, thereby enhancing comprehension, as moving images and animations can represent real-world phenomena (Queiroz *et al.,* 2022).

Participants emphasized that visual materials significantly improve clarity and reduce confusion during instruction. As expressed by the participants:

> *"Kung naa'y video sa lesson, dali ra gyud nila masabtan, labi na kung Science."* - When there is a video in the lesson, students understand more easily, especially in Science. (IDI_P1)
>
> *"Mas klaro ang explanation basta naay visuals kaysa puro talk lang."* - The explanation is clearer when there are visuals rather than pure discussion. (IDI_P2)
>
> *"Pag mag-picture or animation, maka-follow gyud ang bata."* - When there are pictures or animations, learners can really follow the lesson. (IDI_P3)
>
> *"Kung wala'y visual, daghan gyud maglibog sa topic."* - Without visuals, many students get confused about the topic. (IDI_P4)
>
> *"Ang video murag substitute sa actual experience nila."* - Videos serve as substitutes for actual experiences. (IDI_P5)

These findings indicate that visual materials contribute significantly to learning, particularly at the elementary level, where sustaining learners' attention remains a major instructional challenge (Torrington & Bower, 2021). Young learners are naturally prone to distraction, which may limit their ability to focus during purely verbal instruction. The use of videos captures students' attention more effectively, resulting in improved classroom behavior and sustained engagement (Wang *et al.,* 2020). When learners are attentive and focused, they are more likely to actively participate in the learning process.

Furthermore, the findings highlight the importance of addressing individual learning differences. Visual learners, in particular, benefit from multimedia-supported instruction, as they process information more effectively when concepts are presented visually. Educational videos allow complex topics to be broken down into simpler, practical, and reality-based examples, making learning more accessible and meaningful. This instructional approach not only supports comprehension but may also enhance learners' academic performance by aligning teaching strategies with their preferred learning styles.

In Kidapawan City Division, elementary teachers reported that integrating educational videos into instructional strategies and curricular activities significantly supports students' visual comprehension. This approach

is especially advantageous for visual learners who rely heavily on images and visual representations to understand ideas. However, participants emphasized the importance of selecting developmentally appropriate and pedagogically relevant video content to ensure that multimedia use promotes effective and purposeful learning.

These findings are consistent with the work of Karimov *et al.* (2024), who found that educational videos available on platforms such as YouTube and Khan Academy provide learners with access to high-quality instructional content both inside and outside the classroom. Such videos help clarify difficult concepts, demonstrate practical applications, and present real-world examples that enhance students' understanding. Overall, the present study affirms that visual-aided comprehension, facilitated through well-designed multimedia materials, plays a critical role in improving clarity, reducing confusion, and strengthening learners' understanding of abstract and complex lesson content.

Multi-sensory Learning Engagement

Recognizing the diversity of learners' needs is essential in creating inclusive and effective classroom instruction. Learners differ in their learning styles, sensory preferences, and attentional levels, necessitating that teachers adopt strategies that engage all students rather than a select few (Sadik, 2023). In this context, the integration of multimedia tools facilitates a multi-sensory learning environment by simultaneously stimulating learners' visual, auditory, and, in some cases, kinesthetic senses (Chit *et al.,* 2024). Such an approach enhances learners' capacity to process information more effectively by engaging multiple sensory channels.

Participants in this study reported the consistent integration of multimedia tools, such as PowerPoint presentations, short video clips, and background music, into elementary classroom instruction. These tools were described as instrumental in developing both visual understanding and listening skills, while also contributing to a more dynamic and engaging classroom atmosphere. As shared by the participants:

> *"Mag PowerPoint ko, naa'y video, usahay naa pa'y background music."* - I use PowerPoint, videos, and sometimes background music. (IDI_P2)

> *"Mas alive ang class kung naay sound ug picture."* - The class becomes more lively when there is sound and visuals. (IDI_P3)

> *"Dili sila dali kapoyon kung daghan stimuli."* - They do not get tired easily when there are many stimuli. (IDI_P1)

> *"Kung makita ug madunggan nila, mas mo-sink in ang lesson."* - When they can see and hear the lesson, it sinks in better. (IDI_P4)

> *"Multimedia helps different types of learners."* (IDI_P5)

These accounts indicate that the integration of audio-visual elements sustains learners' attention, reduces fatigue, and promotes motivation. In the elementary schools of Kidapawan City Division, the use of multimedia tools was found to foster multi-sensory learning by allowing learners to visualize concepts while simultaneously engaging their auditory senses. PowerPoint presentations and video clips enable learners to see and mentally organize information, while sound elements support the development of listening skills, thereby enhancing overall comprehension.

The findings align with Khasawneh (2024), who emphasized that multi-sensory learning enhances student engagement and motivation by activating multiple sensory pathways. By engaging learners through visual, auditory, and kinesthetic modalities, instructors are more likely to elicit active participation and sustained focus throughout the lesson. Additionally, Tarigan *et al.* (2023) reported that multi-sensory instruction improves memory retention and long-term recall, which may positively influence learners' academic performance. The combination of sensory inputs also supports the development of higher-order skills, such as critical thinking, problem-solving, and conceptual integration.

Moreover, Barbu *et al.* (2024) highlighted the central role of interactive presentation tools, such as PowerPoint, Google Slides, and Prezi, in multimedia-rich learning environments. These platforms enable teachers to integrate images, videos, animations, and interactive elements tailored to learners' needs, making complex concepts more accessible while maintaining high levels of engagement (Meganathan, 2024).

Beyond general classroom application, multi-sensory approaches also promote inclusive education. Buttuller (2023) emphasized that multi-sensory methods are particularly beneficial for learners with visual impairments, as they reduce reliance on visual input alone and incorporate alternative sensory experiences. The use of tactile materials, audio recordings, and contextual sensory cues can further enhance understanding and ensure equitable access to learning.

Overall, the findings affirm that multi-sensory learning engagement, facilitated through the strategic use of multimedia tools, sustains learners' attention, enhances motivation, accommodates diverse learning styles, and supports deeper, more meaningful learning experiences. When thoughtfully integrated, multimedia not only enlivens classroom instruction but also strengthens learners' cognitive processing and retention of lesson content.

Interactive Learning through Multimedia

The effectiveness of teaching strategies depends largely on their ability to capture students' attention and promote active participation in classroom activities and discussions (Melissa & Samia, 2022). In response to this pedagogical demand, the integration of multimedia tools has emerged as a powerful approach for fostering interactive learning experiences. Findings from this study reveal that elementary school teachers perceive multimedia as an effective means of encouraging active learner participation and engagement.

Participants consistently emphasized that multimedia materials, particularly videos, serve as instructional guides that prompt interaction and participation. As expressed by the participants:

> *"After sa video, naa koy questions, sila gyud mo-answer."* - After the video, I ask questions and they actively respond. (IDI_P1)
>
> *"Mas active sila kung naay interactive activity."* - They are more active when there is an interactive activity. (IDI_P2)
>
> *"Dili lang sila tan-aw, mo-participate gyud."* - They do not just watch; they actively participate. (IDI_P3)
>
> *"Mas confident sila mo-share kung naa'y guide like video."* - They become more confident in sharing when there is a guide, such as a video. (IDI_P4)
>
> *"Ang multimedia maka-push nila to engage."* - Multimedia pushes them to engage. (IDI_P5)

These findings suggest that multimedia facilitates an interactive learning environment in which learners are not passive recipients of information but active participants in the learning process. In the context of the Kidapawan City Division, multimedia use enables students to watch, listen, perform, and respond, thereby sustaining engagement and fostering a positive classroom climate. Teachers reported incorporating activities such as singing, dancing, guided questioning, collaborative tasks, and game-based instruction to encourage learner involvement and build confidence.

The integration of multimedia also reflects a shift from traditional teacher-centered instruction, where teachers dominate classroom discourse and students assume passive roles, to a student-centered learning approach. In this model, teachers act as facilitators who guide learners through structured multimedia content that supports interaction and discussion. This aligns with contemporary pedagogical perspectives that emphasize learner autonomy, collaboration, and meaningful engagement.

Supporting this view, Franco and DeLuca (2019) highlighted that game-based and multimedia-enhanced learning environments integrate education with entertainment, thereby motivating learners to participate actively. Educational games and interactive tasks encourage problem-solving, critical thinking, and collaboration, allowing students to apply their knowledge in engaging and authentic contexts.

Despite resource constraints in some public schools in the Kidapawan City Division, particularly in remote areas, teachers identified multimedia projectors as essential for delivering interactive lessons. Projectors enable the display of digital content, such as videos, presentations, and virtual field trips, for the entire class, ensuring accessibility and inclusivity. As noted by Ngozi and Jennifer (2024), multimedia projectors enhance classroom interaction by making visual content more visible and engaging, thereby supporting equitable learning opportunities for all students.

Overall, the findings affirm that interactive learning through multimedia promotes learner participation, confidence, and sustained engagement. By

providing visual structure and guided prompts for discussion and activities, multimedia tools encourage students to interact more actively with lesson content and one another, resulting in a more dynamic and inclusive learning environment.

Values Integration through Visual Media

Schools serve not only as centers for academic development but also as environments that nurture moral and spiritual values, shaping students' character and promoting ethical conduct. Teachers, often regarded as "second parents," play a pivotal role in this developmental process. While values and moral foundations are initially established at home, schools provide a supplementary environment for reinforcing these principles and fostering responsible citizenship. In this study, the findings reveal that teachers effectively leverage multimedia to support values and character education through visual storytelling.

Participants reported using animated videos, audiovisual presentations, and visual parables to convey moral lessons, making abstract ethical concepts tangible and relatable. For example, participants shared:

> *"Nagamit ko ug animated video sa values, mas gets nila ang lesson."* - I used animated videos for values education, and they understood the lesson better. (IDI_P3)
>
> *"Kung storya lang, usahay dili kaayo sila attentive."* - If it is only verbal storytelling, they are sometimes not attentive. (IDI_P1)
>
> *"Pag naa'y video about values, ma-feel gyud nila."* - When there is a video about values, they truly feel it. (IDI_P4)
>
> "*Mas dali nila ma-relate ang good behavior kung makita."* - They relate more easily to good behavior when they can see it. (IDI_P2)
>
> *"Visual stories help them understand moral lessons."* (IDI_P5)

These insights indicate that multimedia facilitates the integration of values by fostering emotional engagement and enabling learners to internalize moral lessons more effectively than through verbal instruction alone. In public elementary schools in the Kidapawan City Division, teachers reported incorporating multimedia content, such as videos of prayers, animated parables, and moral stories, into lessons, thereby enhancing students' attention, comprehension, and engagement.

The role of teachers extends beyond knowledge transmission; they are instrumental in modeling ethical behavior and cultivating values in young learners. Multimedia provides an innovative platform for this pedagogical function, enabling students to observe modeled behaviors, reflect on moral dilemmas, and connect emotionally with the content. This approach aligns with the broader objective of preparing students to become conscientious and responsible citizens.

Access to appropriate digital resources is critical for the effective integration of values education. Celeste and Osias (2024) highlighted that the

absence of suitable software applications and digital learning materials can hinder teachers' ability to incorporate age-appropriate values content. Thus, providing a diverse and accessible repository of multimedia resources is essential to equip educators with the tools necessary to foster ethical and moral development in the 21st century.

The findings of this study echo prior research by Abdulrahaman et al. (2020) and Ishaq et al. (2020), which demonstrated that multimedia instructional strategies can transform abstract or complex teaching concepts into concrete, understandable content. Multimedia facilitates the efficient presentation of large volumes of information, stimulates interest in learning, and enhances teachers' capacity to influence students' understanding and engagement. In values education, multimedia achieves similar outcomes by visually modeling moral behavior and creating scenarios that resonate emotionally with learners.

Overall, visual media strengthens values education by combining ethical instruction with emotional and cognitive engagement. By presenting moral lessons through videos, images, and animations, teachers enable students to connect with the content ethically and emotionally, internalize positive behaviors, and apply these lessons in real-life contexts. Multimedia thus emerges as a vital pedagogical tool that supports both academic learning and character formation in contemporary elementary education.

Challenges or Barriers Teachers Faced in Nurturing Student Literacy in the Classroom

As the education system continues to adapt to innovation and shift from traditional to technology-integrated education, this underscores the importance of multimedia in students' overall learning experiences, especially for elementary learners, whose sensory learning begins to develop. The results of the first objective generally indicate that multimedia is an effective tool for classroom engagement and participation. The study further noted that the use of multimedia tools and platforms can cater to diverse learners through multisensory learning. According to the 2023 Global Education Monitoring (GEM) Report by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Philippines demonstrates positive attitudes among administrators toward integrating technology into basic education and school management.

Despite these results, elementary public school teachers faced various challenges in nurturing students' literacy in the classroom. This means that, despite the advantages and potential of multimedia integration, it also has several limitations, especially in public schools in Kidapawan City Division. The results of this study primarily indicated that technical and resource limitations are the primary challenges in integrating multimedia into classroom instruction.

Table 2 presents the technical and resource constraints faced by elementary school teachers in the Kidapawan City Division. Based on the analysis of interview responses, the participants have been challenged by the following: Equipment Malfunction, Lack of Internet and Learner Devices, and Financial Constraints Due to Policy.

Table 2.

Challenges in Multimedia Integration in Elementary Classrooms.

Themes	Issues Probed	Codes/ Categories	Significant Statements	Interpretation
Equipment malfunction	How device failures affect lesson delivery and classroom engagement	▪ Malfunctioning TVs, projectors, speakers ▪ Interruptions during multimedia use ▪ Dependence on functional devices	*"Sometimes television or speakers don't work properly or there was an interruption which made it difficult to show videos."* (IDI_P2) *"Usahay kalit lang mawala ang sound or mag-black screen ang TV."* (IDI_P3) *"Naa'y times nga dili mo-connect ang projector, sayang ang time."* (IDI_P4) *"Mag-start ko ug lesson unya mo-hang ang device."* (IDI_P1) *"Kung guba ang gamit, balik ko sa traditional teaching."* (IDI_P5)	Device malfunctions disrupt lesson flow, reduce instructional efficiency, and force teachers to revert to traditional teaching methods, affecting learners' engagement and comprehension.
Lack of internet and learner devices	How limited digital infrastructure constrains multimedia use	▪ Insufficient internet connectivity ▪ Unequal access to devices ▪ Limited digital resources	*"I need internet connection inside my classroom… maybe tablets at least 50% for my learners."* (IDI_P1) *"Dili tanan bata naay gadget, so lisod mag-digital activity."* (IDI_P2) *"Kung walay internet, dili ko ka-play ug videos."* (IDI_P3) *"Usahay mobile data ra akong gamit, hinay pa gyud."* (IDI_P4) *"Limited kaayo among resources para sa multimedia."* (IDI_P5)	Inadequate digital infrastructure, including poor internet connectivity and insufficient devices, limits the effective integration of multimedia, reducing access and participation for some learners.
Financial constraints due to Policy	How school policies affect teachers' ability to support multimedia activities	▪ Zero-collection policy ▪ Personal financial burden on teachers	*"I can't ask parents for money to load internet because of zero collection policy."* (IDI_P1) *"Maski ganahan mi mag-improve, walay budget para ana."*	Financial limitations and restrictive policies place additional burdens on teachers, making it difficult to implement multimedia-based

		▪ Lack of budget allocation for multimedia	(IDI_P8) *"Zero collection policy, so kami ra gyud teachers ang mo-adjust."* (IDI_P5) *"Usahay personal load na lang akong gamiton."* (IDI_P10) *"Lisod kaayo mag-multimedia kunlay financial support."* (IDI_P9)	learning and limiting equitable acces,s for students.
Limited Teacher Training and Technical Support	How professional development and support affect multimedia implementation	▪ Lack of training in device handling ▪ Absence of regular technology workshops ▪ Insufficient technical support	*"Naa'y multimedia pero dili kaayo mi kabalo mo-handle."* (IDI_P3) *"Walay regular training about using technology sa class."* (IDI_P7) *"Kung naay problem sa device, kami ra sad mangita ug paagi."* (IDI_P9) *"Lisod mo-explore ug multimedia kung walay technical support."* (IDI_P10) *"Gusto ko mo-learn more pero kulang ug guidance."* (IDI_P5)	Limited training and absence of technical support hinder teachers' confidence and ability to integrate multimedia effectively, constraining innovative instructional practices.

Equipment Malfunction

While multimedia technologies offer innovative opportunities for teaching and learning, they are not without limitations. Technical problems, such as equipment malfunctions, can disrupt lessons, interfere with instructional flow, and compromise student engagement. Tools such as televisions, projectors, and speakers are essential for implementing multimedia-based activities, but their effectiveness depends on their functionality and proper maintenance.

Findings from this study reveal that teachers in the Kidapawan City Division frequently encounter technical difficulties during classroom instruction. Participants reported instances in which televisions, speakers, and projectors failed to operate as intended, interrupting lesson delivery and impeding student learning. To cite, participants noted:

> *"Sometimes television or speakers don't work properly, or there is an interruption that makes it difficult to show videos."* (IDI_P2)

> *"Usahay kalit lang mawala ang sound or mag-black screen ang TV."* - Sometimes the sound suddenly disappears or the TV screen goes black. (IDI_P3)

> *"Naa'y times nga dili mo-connect ang projector, sayang ang time."* - There are times when the projector does not connect, wasting valuable time. (IDI_P4)

> *"Mag-start ko ug lesson unya mo-hang ang device."* - I start a lesson and then the device hangs. (IDI_P1)

> *"Kung guba ang gamit, balik ko sa traditional teaching."* - When the equipment is broken, I revert to traditional teaching. (IDI_P5)

These experiences highlight the dependency of multimedia instruction on reliable equipment and underscore how malfunctions can compromise lesson continuity. In public schools, where resources are often shared and collectively managed, the frequent use of equipment by multiple teachers without dedicated oversight can exacerbate wear and degrade technical performance. Furthermore, some devices may be outdated, increasing their susceptibility to failure and reducing compatibility with contemporary multimedia applications.

The study also emphasizes the need for teachers to develop technical expertise in operating and troubleshooting equipment to minimize disruptions. Without such skills, technical issues may force educators to revert to conventional teaching methods, thereby reducing the interactive and engaging potential of multimedia-based instruction. Similar challenges have been reported in other studies, including those by Shaswar (2022) and Arsari (2022), which noted that educators often struggle with integrating technology into lessons due to insufficient technical support and expertise. Likewise, Molines (2023) found that teachers in Masbate, Philippines, experienced difficulties in setting up and troubleshooting multimedia equipment, which impeded effective classroom use.

In sum, equipment malfunctions represent a significant barrier to the successful implementation of multimedia in classrooms. Malfunctioning TVs, projectors, and speakers disrupt lesson flow, reduce instructional efficiency, and may compromise learners' engagement and comprehension. Addressing these challenges requires both adequate infrastructure and the development of teachers' technical competencies to ensure that multimedia integration remains a reliable and effective pedagogical strategy.

Lack of Internet and Learner Devices

Effective multimedia integration in classrooms relies heavily on reliable internet connectivity and the availability of learner devices, such as tablets or computers. These digital tools are essential for accessing online platforms, streaming educational videos, and utilizing interactive materials that enrich learning experiences. However, findings from this study indicate that teachers

in the Kidapawan City Division face significant challenges due to inadequate digital infrastructure.

Teachers reported frequent difficulties accessing stable internet access, particularly in rural areas, which hampers the use of online resources and limits the implementation of interactive or multimedia-based activities. The scarcity of classroom devices further compounds this challenge. Many schools have only a few tablets, which are insufficient to accommodate all learners, while a considerable number of elementary students come from low-income households without personal learning devices. This combination of limited internet access and inadequate devices restricts the meaningful use of multimedia in lessons.

Participants highlighted these challenges:

> *"I need internet connection inside my classroom… maybe tablets at least 50% for my learners."* (IDI_P1)
>
> *"Dili tanan bata naay gadget, so lisod mag-digital activity."* - Not all students have devices, so digital activities are difficult. (IDI_P3)
>
> *"Kung walay internet, dili ko ka-play ug videos."* - Without internet, I cannot play videos. (IDI_P5)
>
> *"Usahay mobile data ra akong gamit, hinay pa gyud."* - Sometimes I have only mobile data, which is very slow.) (IDI_P7)
>
> *"Limited kaayo among resources para sa multimedia."* - (Our resources for multimedia are very limited. (IDI_P8)

These accounts suggest that the lack of digital infrastructure limits teachers' ability to implement multimedia effectively, reduces student engagement, and impedes equitable access to technology-enhanced learning. It also highlights the systemic challenge of integrating multimedia in public schools where resources are constrained, and infrastructure in rural areas remains underdeveloped.

This situation aligns with broader national and international observations. In the Philippines, internet connectivity is robust in urban regions but weak in rural areas, creating disparities in digital learning opportunities (Araneta *et al.,* 2021).

Afzal *et al.* (2023) similarly noted that rural households have lower connectivity rates than urban households, thereby limiting access to digital educational materials. Consequently, teachers' efforts to integrate multimedia are frequently constrained by infrastructure gaps.

To address this, organizations such as the Asian Development Bank (ADB) emphasize investing in digital infrastructure to ensure equitable access to technology, particularly in the post-pandemic educational recovery period. Government support and funding for information and communication technology (ICT) and educational technology are essential to maximize resource use across schools and to enable meaningful multimedia integration (NIPPSB-DICT, 2023).

Financial Constraints Due to Policy

In public schools in the Philippines, the implementation of a zero-collection policy prohibits teachers from requiring parents to pay or contribute financially for school projects. While designed to ensure free and accessible education, this policy presents significant challenges for multimedia integration in classrooms, particularly in schools with limited resources. Teachers often bear the financial burden of supporting multimedia activities, such as purchasing internet data or other digital materials, to maintain instructional quality and engagement.

Participants described the challenges they face:

> *"I can't ask parents for money to load the internet because of the zero collection policy."* (IDI_P1)
>
> *"Maski ganahan mi mag-improve, walay budget para ana." - Even if we want to improve, there is no budget for that.* (IDI_P8)
>
> *"Zero collection policy, so kami ra gyud teachers ang mo-adjust."* - Due to the zero-collection policy, only teachers adjust and provide resources. (IDI_P5)
>
> *"Usahay personal load na lang akong gamiton."* - Sometimes I use my personal mobile load. (IDI_P10)
>
> *"Lisod kaayo mag-multimedia kung walay financial support."* - It is very difficult to implement multimedia without financial support. (IDI_P9)

These statements indicate that restrictive school policies limit the financial support available for digital access, compelling teachers to use personal resources to supplement classroom needs. This burden is exacerbated by learners' socioeconomic realities: many come from low-income families and lack personal devices for at-home learning. The scarcity of devices and digital resources in schools, especially in rural and underserved areas, further hinders equitable access to multimedia-based instruction.

Research supports these findings. Bordoh (2024) identified limited resources and institutional support, restricted by zero-collection policies, as extrinsic barriers to educational innovation in public elementary schools. Aljawarneh (2020) emphasized that socioeconomic factors contribute to the digital divide, restricting students' access to multimedia tools, online platforms, and digital content, thereby limiting learning opportunities and perpetuating educational inequalities. Similarly, Tusiime *et al.* (2020) reported that inadequate access to digital technologies, including hardware, software, and internet connectivity, hampers teaching and the effective integration of technology in classrooms.

The findings suggest that the zero-collection policy, while ensuring free education, inadvertently constrains multimedia literacy by limiting financial support for teachers and students. As classrooms increasingly shift toward digitalization, there is a critical need for adaptive education policies that balance equitable access to resources with the practical requirements of modern, technology-driven instruction. Providing budget allocations for digital tools and internet access, alongside government or institutional support, would enable

teachers to implement multimedia-based learning more effectively and ensure that all learners benefit from contemporary pedagogical methods.

In summary, financial constraints stemming from policy limitations impose an additional burden on teachers, limiting their ability to implement multimedia-based instruction and exacerbating inequities in digital access. Addressing these challenges requires both policy responsiveness and targeted investments in educational technology to ensure inclusive and effective multimedia learning environments.

Limited Teacher Training and Technical Support

The findings of this study indicate that limited teacher training and technical support remain critical challenges to the effective integration of multimedia literacy in far-flung DepEd schools in Cotabato Province. Teachers reported difficulties in using multimedia tools, primarily due to insufficient professional development opportunities and limited access to functioning equipment. These findings align with UNESCO (2020), cited in Garcia and Espacio (2025), and Azad & Nahar (2024), which emphasized that teachers in rural areas often face constraints in technological skills and support, limiting their ability to implement multimedia-based teaching strategies effectively.

Participants highlighted these challenges:

> *"Naa'y multimedia pero dili kaayo mi kabalo mo-handle."* - Multimedia tools are available, but we don't really know how to handle them. (IDI_P3)

> *"Walay regular training about using technology sa class."* - There is no regular training on using technology in class. (IDI_P7)

> *"Kung naay problem sa device, kami ra sad mangita ug paagi."* - If there is a problem with the device, we have to figure it out ourselves. (IDI_P9)

> *"Lisod mo-explore ug multimedia kung walay technical support."* - It is difficult to explore multimedia without technical support. (IDI_P10)

> *"Gusto ko mo-learn more pero kulang ug guidance."* - I want to learn more, but there is insufficient guidance. (IDI_P5)

A notable observation is that many teachers in these schools are in their mid-40s, which may limit their adaptability to evolving technological trends. Some expressed reluctance or difficulty in adopting multimedia tools, citing the perceived complexity of digital platforms. This aligns with Villarama et al. (2023), who reported that older teachers in rural settings often experience technostress or resistance to adopting digital learning tools, leading them to favor traditional, theory-based instruction. Consequently, students may miss opportunities to develop multimedia literacy and other 21st-century competencies.

Additionally, the lack of functional equipment further diminishes teachers' motivation to integrate multimedia. Participants indicated that broken or

unavailable devices, such as projectors and tablets, often force them to rely solely on traditional teaching methods. This observation aligns with findings by DepEd (2022) and Espinosa et al. (2025), who reported that resource gaps in rural schools, including malfunctioning projectors, weak internet connectivity, and absent tablets, significantly limit the use of modern teaching methods.

The combination of limited training, an aging teaching workforce, and inadequate resources creates a cyclical problem (Dede & Richards, 2020). Teachers without the skills or confidence to implement multimedia are less likely to seek or fully utilize professional development opportunities, and students consequently miss opportunities to enhance comprehension, engagement, and critical thinking (Thelma *et al.,* 2024). This situation contrasts with the pedagogical emphasis on multimedia literacy, which demonstrates that multimedia-supported instruction can significantly enhance student understanding, motivation, and problem-solving, particularly for abstract or complex concepts (Muda *et al.,* 2025).

The implications for policy and practice are clear. First, professional development programs should be tailored to the context of rural teachers, providing step-by-step guidance, ongoing mentoring, and technical support rather than one-off workshops. As recommended by Montillano and Yango (2024), contextualized training aligned with available school resources increases the likelihood of practical implementation. Second, schools must improve infrastructure, including functional audiovisual equipment, reliable internet connectivity, and maintenance support. Even motivated and trained teachers cannot implement multimedia effectively without these structural supports. Third, peer mentoring or collaborative learning initiatives could leverage tech-savvy teachers to support colleagues, fostering gradual adoption of multimedia practices.

In the context of DepEd schools in Kidapawan City, meaningful multimedia literacy education requires a combination of teacher upskilling, resource provision, and ongoing support, with sensitivity to teachers' age, experience, and workload. Without such integrated interventions, students will continue to rely on traditional, theory-based instruction, limiting the development of digital literacy, critical thinking, and engagement in learning.

Strategies Employed by Elementary Teachers to Better Support Multimedia Literacy

In the 21st-century education landscape, to better support multimedia literacy despite the barriers and challenges teachers face, it is essential to employ diverse strategies to meet learning needs. According to Vivekananda and Khapre (2021), multimedia enables the delivery of educational content in myriad formats, making it more engaging and accessible to learners. Textbooks can be enriched with images, videos, and interactive elements to enhance understanding and cater to different learning styles. This means that teachers can still use multimedia despite resource, infrastructure, and policy constraints.

The result of this study highlights and supports the theoretical lens that elementary school teachers, especially those employed in the Kidapawan City Division, can thrive in challenging environments and situations, emphasizing that resilience helps them maintain classroom effectiveness despite the obstacles they face in integrating multimedia into their instruction. Bizami *et al.*

*(*2023) highlight that teachers, acting as facilitators, significantly expand their roles by selecting, adapting, and applying these multimedia tools to maximize their pedagogical potential. This means that they have the capacity to innovate multimedia classrooms most effectively when being challenged by various factors.

Shown in Table 3 are the strategies employed by elementary school teachers in Kidapawan City Division to better support students' multimedia literacy in utilizing multimedia-based instructions. There were eight (8) themes in this area, such as Offline preparation, Use of alternative visual aids, Content screening and selection, Provision of equipment, ICT trainings and seminars, Increased motivation and engagement, Real-life application of lessons, and Improved confidence and communication, which focus on institutional empowerment of a learner-centered multimedia instruction.

Table 3.
Institutional Empowerment of Learner-Centered Multimedia Instruction.

Themes	Issues Probed	Codes/Categories	Significant Statements	Interpretation
Offline preparation	How teachers manage connectivity problems during lessons	Alternative access strategies	*"Nag-download ko daan ug mga videos para ma-play bisan walay internet."* (IDI_P3) – I download videos ahead of time so they can be played offline. *"Giprepare nako ang akong laptop para kung mag-fail ang projector, maka-tudlo gihapon ko."* (IDI_P3) – I prepare my laptop so I can still teach if the projector fails. *"Naa koy printed pictures ug visual aids para alternative kung wala multimedia."* (IDI_P2) – I have printed pictures and visual aids as backup if multimedia fails. *"Gisulayan nako ang materials daan before klase para sigurado nga ready."* (IDI_P4) – I test materials ahead to	Teachers ensure uninterrupted learning by preparing offline materials and alternative teaching aids.

			ensure they are ready. *"Gipangandaman nako ang offline resources para walay gap sa klase."* (IDI_P5) – I prepare offline resources so class won't be interrupted.."	
Content Screening and Selection	How teachers ensure multimedia content is appropriate for learners	Content appropriateness / relevance	*"Gisusi nako ang video daan before ipakita sa klase."* (FGD) – I screen the video beforehand before showing it to class. *"Siguradong ang content kay safe ug angay sa mga estudyante."* (IDI_P2) – Ensuring content is safe and appropriate for students. *"Ako gi-check ang pictures ug audio sa lesson before klase."* (IDI_P3) – I check pictures and audio before class. *"Nagpili ko ug content nga related sa topic ug sa experience sa students."* (IDI_P4) – I choose content related to topic and students' experiences. *"Gisulayan nako nga dili offensive ang materials sa tanan learners."* (IDI_P5) – I make sure the materials are not offensive to any learners.	Teachers actively select and screen multimedia content to ensure learner safety and lesson relevance.
Provision of Equipment	How availability of tools affects multimedia teaching	Access to teaching tools / infrastructure	*"Ang school naghatag ug projector ug speaker sa classroom."* (IDI_P4) – The	Availability of classroom equipment enables smooth and effective

			school provided a projector and speaker in the classroom. *"Naay available nga whiteboard ug laptop para magamit sa lesson."* (IDI_P3) – There's a whiteboard and laptop available for lessons. *"Mas sayon ang pagtudlo kung kompleto ang gamit sa classroom."* (IDI_P2) – Teaching is easier if classroom tools are complete. *"Gipangandaman ang tech tools before klase para ready dayon."* (IDI_P5) – Technology tools are prepared before class so they are ready immediately. *"Ang equipment kay makatabang sa interactive nga pagtudlo."* (IDI_P3) – Equipment helps in delivering interactive lessons.	multimedia teaching.
ICT Training and Seminars	How professional development influences multimedia competence	Teacher training / skill enhancement	*"Naay trainings sa ICT gikan sa DepEd nga among giapilan."* (IDI_P5) – We attend ICT trainings from DepEd. *"Gipadayon namo ang seminars para ma-enhance among skills."* (IDI_P3) – We continue seminars to enhance our skills.	Participation in ICT trainings and seminars enhances teachers' multimedia skills and confidence.

			"Nakakat-on ko sa paggamit ug new apps sa classroom." (IDI_P2) – I learned to use new apps in class. *"Ang trainings makatabang para mas confident sa paggamit sa multimedia."* (IDI_P4) – Trainings help me become more confident in using multimedia. *"Gisunod nako ang mga ICT strategies nga gi-tudlo sa seminar."* (IDI_P3) – I apply the ICT strategies taught in the seminar.	
Increased Motivation and Engagement	How multimedia affects learner interest and participation	Learner engagement / attention	*"Mas ma-engganyo ang students kung naay videos."* (IDI_P3) – Students are more engaged when there are videos. *"Gibati nila nga lingaw ang lesson kung multimedia ang gamiton."* (IDI_P2) – They feel lessons are fun when multimedia is used. *"Mao ni ang paagi nga ma-encourage ang shy students mo-share."* (IDI_P5) – This encourages shy students to participate. *"Mas dali nila masabtan ang lesson kung naa'y visual examples."* (IDI_P4) – They understand lessons better with visual	Multimedia lessons increase student motivation, engagement, and active participation.

			examples. *"Nagka-interes ang students sa topic tungod sa multimedia."* (IDI_P3) – Students become interested in the topic because of multimedia.	
Real-Life Application of Lessons	How students connect multimedia lessons to their lives	Knowledge transfer / relevance	*"Girelate sa ilang daily life ang lesson human sa video."* (IDI_P3) – They relate the lesson to daily life after the video. *"Makita nila ang connection sa classroom ug sa gawas."* (IDI_P2) – They see the connection between classroom and outside life. *"Gisulti nila nga nakat-on sila gamit ang example sa video."* (IDI_P5) – They said they learned from the examples in the video. *"Nagamit nila ang lesson sa practical nga sitwasyon."* (IDI_P4) – They apply the lesson in practical situations. *"Mas dali nila masabtan ang topic kung related sa ilang experience."* (IDI_P3) – They understand topics better when related to experience.	Students are able to transfer knowledge from multimedia lessons to real-world contexts.
Improved Confidence and Communication	How multimedia affects students' expression	Confidence / communication skills	*"Ganahan sila mo-share sa ilang nahibaw-an human sa video."* (IDI_P3) – They like sharing what they learned	Multimedia enhances students' confidence and communication

	and communication	after watching the video. *"Mas confident ang students sa pag-express sa ideas."* (IDI_P2) – Students become more confident in expressing ideas. *"Nagpakita sila sa ilang understanding sa group activity."* (IDI_P5) – They show understanding through group activities. *"Ang multimedia nakatabang para dili maulaw ang mga shy students."* (IDI_P4) – Multimedia helps shy students feel less embarrassed. *"Nagka-kumpyansa sila nga makig-istorya sa klase."* (IDI_P3) – They gain confidence to speak in class.	skills in classroom participation.

Offline Preparation

Inconsistent internet connectivity in schools presents a significant challenge for teachers when integrating multimedia resources into lessons. This study found that educators in the Kidapawan City Division address this issue by proactively preparing offline materials, such as videos and visual aids, on their personal devices. Teachers typically download multimedia resources in advance, often at home, where internet access is more reliable, so that lessons can proceed seamlessly in the classroom despite connectivity disruptions. As one participant explained,

> *"I overcome it by downloading videos ahead of time and using my own laptop so the class can still watch offline."* (IDI_3)

Similarly, other participants highlighted complementary strategies, including preparing laptops to mitigate projector failures, using printed pictures or visual aids as backups, testing materials before class, and ensuring offline resources are readily available:

> *"Nag-download ko daan ug mga videos para ma-play bisan walay internet."* (IDI_P3) – I download videos ahead of time so they can be played offline.

> *"Giprepare nako ang akong laptop para kung mag-fail ang projector, maka-tudlo gihapon ko."* (IDI_P3) – I prepare my laptop so I can still teach if the projector fails.

> *"Naa koy printed pictures ug visual aids para alternative kung wala multimedia."* (IDI_P2) – I have printed pictures and visual aids as backup if multimedia fails.

> *"Gisulayan nako ang materials daan before klase para sigurado nga ready."* (IDI_P4) – I test materials ahead to ensure they are ready.

> *"Gipangandaman nako ang offline resources para walay gap sa klase."* (IDI_P5) – I prepare offline resources so class won't be interrupted.

These strategies demonstrate that teachers actively compensate for technological limitations to maintain lesson continuity. By preparing offline resources, educators not only reduce classroom disruptions but also ensure smooth lesson flow and sustained student engagement, even when internet access is limited. This proactive approach aligns with international research, which highlights the effectiveness of multimedia learning tools in enhancing student interaction and engagement (Adil Imroz, 2023). Moreover, it underscores the importance of selecting learning activities that accommodate technological constraints, as recommended by Owen et al. (2020) and Tsimba *et al.* (2020).

Overall, the findings suggest that teachers' offline preparation practices represent a practical and resilient strategy for sustaining multimedia-based teaching in contexts with limited internet connectivity.

Content Screening and Selection

In the digital era, educators are confronted with a vast array of online content, much of which may not be credible, age-appropriate, or suitable for classroom instruction. This study revealed that teachers in the Kidapawan City Division employ deliberate content screening and selection to ensure that multimedia materials used in lessons are relevant, safe, and aligned with educational objectives. The responsibility for identifying appropriate instructional content primarily rests with teachers, who serve as facilitators of learning and are responsible for safeguarding students' welfare.

One participant in a focus group discussion stated:

> *"I screen multimedia content before showing to ensure appropriateness."* (FGD)

Other participants described complementary strategies, highlighting the careful preparation required to maintain lesson quality and protect learners:

> *"Gisusi nako ang video daan before ipakita sa klase."* (FGD) – I screen the video beforehand before showing it to class.
>
> *"Siguradong ang content kay safe ug angay sa mga estudyante."* (IDI_P2) – Ensuring content is safe and appropriate for students.
>
> *"Ako gi-check ang pictures ug audio sa lesson before klase."* (IDI_P3) – I check pictures and audio before class.
>
> *"Nagpili ko ug content nga related sa topic ug sa experience sa students."* (IDI_P4) – I choose content related to topic and students' experiences.
>
> *"Gisulayan nako nga dili offensive ang materials sa tanan learners."* (IDI_P5) – I make sure the materials are not offensive to any learners.

These practices indicate that not all multimedia resources are suitable for free classroom use; rather, they require careful filtering to ensure alignment with learning objectives, student competencies, and developmental appropriateness. By selecting and screening materials, teachers minimize students' exposure to potentially provocative or mature content while promoting a safe and consistent learning environment.

The findings align with international research emphasizing the importance of contextualized instructional materials. Abdulrahaman et al. (2020) highlight that teachers must understand their students' needs and select tools appropriate for specific educational objectives, while Buttuller (2023) underscores that instructional content should be tailored to children's abilities, interests, and learning needs to prevent confusion and enhance comprehension. Contextualized multimedia learning, therefore, not only facilitates understanding but also reinforces student safety, engagement, and learning continuity.

Overall, the results suggest that active content screening and selection are key strategies for teachers to ensure learner safety, lesson relevance, and effective multimedia integration in classrooms across diverse educational contexts.

Provision of Equipment

The effective integration of multimedia in the classroom requires not only teacher preparedness but also institutional support through the provision of necessary equipment. This study revealed that, despite limited resources and connectivity challenges, schools in the Kidapawan City Division support teachers by providing essential tools such as projectors and speakers, which facilitate the use of multimedia in instruction. One participant noted:

> *"The school provided a projector and speaker ready in my classroom."* (IDI_P4)

Other participants shared similar experiences, emphasizing the practical role of available equipment in delivering lessons:

> *"Ang school naghatag ug projector ug speaker sa classroom."* (IDI_P4) – The school provided a projector and speaker in the classroom.
>
> *"Naay available nga whiteboard ug laptop para magamit sa lesson."* (IDI_P3) – There's a whiteboard and laptop available for lessons.
>
> *"Mas sayon ang pagtudlo kung kompleto ang gamit sa classroom."* (IDI_P2) – Teaching is easier if classroom tools are complete.
>
> *"Gipangandaman ang tech tools before klase para ready dayon."* (IDI_P5) – Technology tools are prepared before class so they are ready immediately.
>
> *"Ang equipment kay makatabang sa interactive nga pagtudlo."* (IDI_P3) – Equipment helps in delivering interactive lessons.

The findings indicate that the availability of multimedia equipment facilitates smoother, more interactive, and more effective teaching, enabling students to engage more actively in lessons. While resource constraints may limit individualized support or the provision of extensive devices, the institution's efforts to equip classrooms reflect a commitment to adapting to technological change and fostering multimedia literacy.

These results are consistent with international research emphasizing the importance of infrastructure in digital pedagogy. Almacen and Labitad (2024) highlight that educational institutions must integrate multimedia tools to create inclusive, engaging, and digitally competent learning environments. Providing projectors, speakers, and other instructional technologies enhances student participation, facilitates active learning, and supports teachers in delivering interactive lessons, making multimedia integration a cornerstone of effective 21st-century pedagogy.

Overall, the study suggests that institutional support through equipment provision is critical in enabling teachers to implement multimedia strategies, ensuring lessons are engaging, interactive, and aligned with contemporary educational needs.

ICT Training and Seminars

Professional development through ICT training and seminars has emerged as a crucial mechanism for equipping elementary teachers with the skills necessary for effective multimedia instruction. This study revealed that the Department of Education (DepEd) in the Kidapawan City Division offers various training programs to integrate ICT into classroom teaching. These initiatives ensure that teachers develop the competencies required to utilize multimedia tools effectively. As one participant stated during a focus group discussion:

> *"We have trainings on ICT integration from DepEd and attend seminars."* (FGD)

Participants highlighted that these professional development activities significantly enhanced their teaching skills and confidence in using digital resources:

> *"Naay trainings sa ICT gikan sa DepEd nga among giapilan."* (IDI_P5) – We attend ICT trainings from DepEd.
>
> *"Gipadayon namo ang seminars para ma-enhance among skills."* (IDI_P3) – We continue seminars to enhance our skills.
>
> *"Nakakat-on ko sa paggamit ug new apps sa classroom."* (IDI_P2) – I learned to use new apps in class.
>
> *"Ang trainings makatabang para mas confident sa paggamit sa multimedia."* (IDI_P4) – Trainings help me become more confident in using multimedia.
>
> *"Gisunod nako ang mga ICT strategies nga gi-tudlo sa seminar."* (IDI_P3) – I apply the ICT strategies taught in the seminar.

The findings underscore the importance of continuing professional development in enabling teachers to navigate technical challenges, maximize the use of multimedia tools, and deliver engaging lessons. In contexts where technical difficulties are common, such as limited internet access or device shortages, ICT training provides teachers with practical strategies to ensure lesson continuity and enhance instructional quality.

These results are supported by international literature highlighting the need for digital literacy among educators. Bordoh (2024) emphasized that many experienced teachers are hesitant to engage with digital tools, relying instead on younger colleagues to adopt technology. This indicates that, despite the growing importance of multimedia in education, professional development remains essential for equipping teachers with the skills to integrate technology effectively. Developing basic computer skills, becoming proficient with educational applications, and understanding ICT strategies are critical for teachers to thrive in a technology-driven learning environment.

Overall, the study suggests that participation in ICT trainings and seminars significantly enhances teachers' multimedia competence and confidence, providing them with the knowledge and skills required to implement technology-integrated instruction effectively.

Increased Motivation and Engagement

Multimedia instruction has been widely recognized as an effective pedagogical approach, particularly in elementary education, where young learners benefit from visual, auditory, and interactive stimuli. Findings from this study indicate that the use of multimedia significantly increases students' motivation and engagement, as evidenced by their positive responses, sustained attention, and active participation during lessons. When multimedia materials evoke emotional interest and connect with learners' experiences, students demonstrate heightened curiosity and willingness to engage in classroom activities.

One participant highlighted this impact, stating:

> *"My students respond positively and become more engaged when I use multimedia materials."* (IDI_P2)

Supporting this observation, participants shared several experiences illustrating how multimedia enhances learner engagement:

> *"Mas ma-engganyo ang students kung naay videos."* (IDI_P3) – Students are more engaged when there are videos.
>
> *"Gibati nila nga lingaw ang lesson kung multimedia ang gamiton."* (IDI_P2) – They feel lessons are fun when multimedia is used.
>
> *"Mao ni ang paagi nga ma-encourage ang shy students mo-share."* (IDI_P5) – This encourages shy students to participate.
> *"Mas dali nila masabtan ang lesson kung naa'y visual examples."* (IDI_P4) – They understand lessons better with visual examples.
>
> *"Nagka-interes ang students sa topic tungod sa multimedia."* (IDI_P3) – Students become interested in the topic because of multimedia.

These findings emphasize that multimedia not only captures students' attention but also enhances comprehension, participation, and confidence in expressing ideas. By presenting concepts through engaging visual and interactive formats, learners are better able to understand complex ideas, sustain focus, and participate actively in discussions. Teachers in the Kidapawan City Division consistently perceive multimedia as an effective instructional tool that promotes a more dynamic and learner-centered classroom environment.

The results align with international studies highlighting the affective and cognitive benefits of multimedia learning. A study by Lamar University (2024) found that students exposed to visual and interactive media associate learning with curiosity, enjoyment, and positive emotions, which in turn enhance engagement and academic performance. Similarly, Olufunke *et al.* (2022) reported that multimedia-based activities sustain students' attention and reinforce skills more effectively due to their interactive and enjoyable nature.

Overall, the study suggests that multimedia instruction significantly enhances student motivation, engagement, and active participation, making it a powerful instructional strategy for improving learning experiences and outcomes in elementary classrooms.

Real-Life Application of Lessons

Multimedia instruction enables students to relate academic content to their real-life experiences, thereby facilitating meaningful knowledge transfer. Findings from this study indicate that when lessons are presented through multimedia, students are better able to connect abstract concepts to familiar situations, resulting in deeper understanding and more practical learning. This approach supports student-centered instruction by encouraging learners to reflect on, compare, and apply new knowledge within real-world contexts.

One participant described this experience, stating:

> *"Some relate lessons to their real-life experiences after watching videos."* (P3)

Additional accounts from participants further illustrate how multimedia supports real-life application of lessons:

> *"Girelate sa ilang daily life ang lesson human sa video."* (IDI_P3) – They relate the lesson to daily life after the video.
>
> *"Makita nila ang connection sa classroom ug sa gawas."* (IDI_P2) – They see the connection between the classroom and outside life.
>
> *"Gisulti nila nga nakat-on sila gamit ang example sa video."* (IDI_P5) – They said they learned from the examples in the video.
>
> *"Nagamit nila ang lesson sa practical nga sitwasyon."* (IDI_P4) – They apply the lesson in practical situations.
>
> *"Mas dali nila masabtan ang topic kung related sa ilang experience."* (IDI_P3) – They understand topics better when related to experience.

These findings suggest that multimedia materials encourage learners to reflect on personal experiences, share insights, and engage in storytelling, thereby promoting interaction and fostering an emotionally safe and participatory classroom environment. When students encounter content that mirrors their lived realities, they are more inclined to critically explore ideas, deepen their understanding, and actively engage in learning processes. Multimedia thus serves as a bridge between classroom instruction and real-world application, enhancing both relevance and comprehension.

The results are consistent with the study by Zamiri and Esmaeili (2024), which emphasized that digital and social media-based content supports communication, discussion, and knowledge sharing among students and teachers. Such platforms allow learners to engage with real-world issues, current events, and social contexts, making learning more relevant and meaningful. This alignment suggests that teachers who integrate real-life-oriented multimedia content effectively support students in connecting lessons to their own experiences and the broader world.

Overall, the findings indicate that multimedia-based instruction enables students to transfer classroom learning to real-world contexts, fostering deeper understanding, relevance, and meaningful engagement in elementary education.

Improved Confidence and Communication

Integrating multimedia into classroom instruction has been shown to significantly enhance students' confidence and communication skills. Through videos, images, audio, and interactive simulations, students are better able to engage with complex concepts, leading to improved comprehension, retention, and expression. Findings from this study indicate that multimedia encourages

learners to actively share ideas, participate in discussions, and communicate their understanding more confidently.

As one participant observed:

> *"Students enjoyed watching and were eager to share what they learned."* (P3)

This observation was consistently supported by participants' accounts describing how multimedia fosters student expression and participation:

> *"Ganahan sila mo-share sa ilang nahibaw-an human sa video."* (IDI_P3) – They like sharing what they learned after watching the video.
>
> *"Mas confident ang students sa pag-express sa ideas."* (IDI_P2) – Students become more confident in expressing ideas.
>
> *"Nagpakita sila sa ilang understanding sa group activity."* (IDI_P5) – They show understanding through group activities.
>
> *"Ang multimedia nakatabang para dili maulaw ang mga shy students."* (IDI_P4) – Multimedia helps shy students feel less embarrassed.
>
> *"Nagka-kumpyansa sila nga makig-istorya sa klase."* (IDI_P3) – They gain confidence to speak in class.

These findings suggest that multimedia-based instruction creates a supportive and interactive learning environment where students feel more comfortable articulating ideas and engaging in collaborative activities. By providing visual and auditory cues, multimedia reduces anxiety, particularly among shy learners, and enables students to express their understanding through discussion, storytelling, and group work. This aligns with the principles of learner-centered instruction, in which communication and participation are essential to meaningful learning.

The results are consistent with international research emphasizing the role of multimedia in developing 21st-century skills. Monika *et al.* (2023) highlighted that high-quality multimedia resources enhance engagement but require ongoing updates and technical expertise to remain effective. Kenwright (2020) further emphasized that incorporating sound and music can significantly increase learner stimulation and emotional engagement. Additionally, Rinekso (2021) underscored the importance of integrating the 4Cs, creativity, critical thinking, communication, and collaboration, into instruction, identifying communication as a key competency developed through multimedia-supported learning environments.

Despite the benefits, the study also recognizes contextual challenges within the Kidapawan City Division, including limited access to digital infrastructure and multimedia resources, particularly in rural areas. Teachers demonstrated resilience by supplementing multimedia instruction with traditional materials to ensure continuity of learning. While these strategies may not fully address systemic limitations, they serve as adaptive mechanisms to bridge resource gaps and maintain instructional effectiveness.

In support of these findings, Azad (2024) emphasized the need for practical teacher training, improved access to multimedia resources, reliable internet connectivity, and continuous student feedback to strengthen digital learning environments. Overall, this study concludes that multimedia integration enhances students' confidence and communication skills, but sustained institutional support, infrastructure development, and resource equity are necessary to ensure that learners, especially in underserved contexts, can fully develop multimedia literacy and compete in a globalized educational landscape.

CREATIVE SYNTHESIS

This chapter presents a concise synthesis of the study's findings, followed by the corresponding conclusions and recommendations derived from the results.

Synthesis

The study reveals that multimedia integration in public elementary schools significantly enhances learner engagement and comprehension by making lessons more interactive, concrete, and values-oriented through visual, auditory, and participatory elements. However, teachers' experiences also highlight persistent barriers, including inadequate infrastructure, unreliable internet connectivity, limited learners' access to devices, malfunctioning equipment, and constraints imposed by the zero-collection policy. Despite these challenges, elementary teachers demonstrate resilience and adaptability by employing practical strategies such as preparing offline materials, utilizing printed visual aids, carefully curating multimedia content, and participating in ICT-related training. These findings collectively illustrate that multimedia integration is both beneficial and complex, requiring not only teacher competence but also systemic and institutional support.

Theoretical Implications

From a theoretical perspective, the findings affirm the relevance of multimedia learning and multiliteracy theories by demonstrating how combined media elements support deeper understanding and learner engagement, particularly among young learners. The study also reinforces resilience theory, as teachers consistently adapt their pedagogical practices to overcome structural and technological limitations. The results suggest that effective technology-enhanced instruction is not solely dependent on access to advanced tools but is also shaped by teachers' capacity to interpret, adapt, and contextualize multimedia resources within constrained environments.

Practical Implications

In practice, the study underscores the importance of multimedia integration as an effective instructional approach in elementary education, as it enhances learner participation, comprehension, and motivation. It highlights the need for schools to provide teachers with adequate preparation time, functional multimedia equipment, and ready-to-use instructional materials aligned with learning competencies. Furthermore, the findings encourage teachers to adopt structured, multisensory lesson designs that cater to diverse learning styles while remaining feasible in low-resource classrooms. These implications underscore that thoughtful, well-supported use of multimedia can significantly enhance classroom instruction, even in challenging contexts.

Possibilities

The findings offer opportunities to improve policy and institutional practices related to multimedia integration. DepEd and school administrators may consider reassessing existing policies, such as the zero-collection policy, to explore transparent, regulated community-based support mechanisms that sustain internet access and basic digital needs without burdening families.

There is also potential for expanding ICT-focused professional development programs that emphasize practical skills, including troubleshooting, responsible content selection, and the creation of localized multimedia materials suitable for rural and resource-limited settings. Additionally, future research may explore longitudinal or comparative studies examining the long-term effects of multimedia literacy on academic performance across rural and urban contexts to better understand issues of digital equity.

Epilogue

Overall, this study highlights that while multimedia integration holds strong promise for improving elementary education, its success depends on the interplay between teacher resilience, instructional adaptability, and institutional support. Teachers remain at the forefront of navigating technological limitations to ensure meaningful learning experiences for their students. Strengthening policies, infrastructure, and professional development initiatives will not only support teachers' efforts but also help bridge existing gaps in access and equity, ensuring that multimedia literacy becomes an inclusive and sustainable component of elementary education.

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