
Narratives of teachers Using Edutainment Tools in Marginalized Areas

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Abstract

This qualitative study explores the lived experiences of eight teachers from Cabayugan Elementary School using edutainment tools in marginalized areas. Employing a phenomenological approach, it investigates teachers' motivations, challenges, perceived effectiveness, and recommendations regarding the integration of educational entertainment tools in instruction. Data were collected through semi-structured interviews, reflective journals, and classroom observations. Thematic analysis revealed four emergent themes: motivated engagement, infrastructure challenges, instructional effectiveness, and need for professional development. Findings show that teachers are driven by a desire to make learning enjoyable and engaging despite limited resources, unreliable internet, and lack of equipment. They creatively adapt tools to local contexts, fostering improved student motivation and retention. Teachers advocate for systematic training and investment in infrastructure to sustain edutainment use. The study underscores teachers' resilience and innovative pedagogical practices in enhancing educational equity in under-resourced communities. Implications for policy include the importance of targeted capacity building, resource allocation, and support for grassroots innovation in digital education. The research adds valuable insight into how marginalized schools can capitalize on edutainment tools to bridge educational gaps and promote learner engagement.

Keywords: edutainment tools, marginalized areas, qualitative research, teacher narratives, educational technology, instructional innovation, rural education, phenomenology, thematic analysis.

1. Introduction

The integration of educational technology in teaching has emerged as a vital strategy to improve learner engagement and outcomes worldwide (Yoon, Anderson, Lin, & Colón, 2022). In particular, edutainment (ET) tools—educational materials designed to entertain while instructing—offer innovative possibilities for motivating students and making learning more accessible (Cabero-Almenara & Llorente-Cejudo, 2020). However, access to and effective use of these tools remain problematic in marginalized areas, where infrastructure, resources, and training are limited. This study examines the narratives of teachers from Cabayugan Elementary School, situated in a marginalized rural setting, who utilize ET tools despite these challenges.

The objective is to explore the lived experiences of teachers, focusing on their reasons for using ET tools, the obstacles they encounter, their perceptions of instructional effectiveness, and their

recommendations to sustain and improve ET integration. This study adopts the OPILOT structure to contextualize the problem, underscore its importance, review related literature briefly, restate objectives, and present the thesis statement.

Although prior research highlights the motivational and cognitive benefits of ET tools (Mayer, 2021), few studies have prioritized the voices of educators in underserved Philippine rural schools. Capturing teachers' firsthand accounts contributes to educational equity by informing policies and practices that reflect classroom realities. Indeed, teachers in such settings must often display remarkable resilience and creativity to bridge digital divides and promote meaningful learning.

By engaging with these narratives, this study aims to illuminate how teachers' professional commitment, coupled with innovative use of ET tools, transforms instructional challenges into pedagogical opportunities. Understanding these experiences will guide tailored support mechanisms to optimize digital learning in marginalized communities.

2. Statement of the Problem

1. What is your reason of using ET Tools in instruction?
2. What challenges you encounter in using ET Tools in instruction?
3. How effective is the use of ET Tools in instruction?
4. What are your recommendations?

3. Methodology

This study employed a qualitative phenomenological research design, appropriate for exploring participants lived experiences and the meanings they ascribe to those experiences (Creswell, 2013). Phenomenology permits deep understanding of how teachers perceive, interpret, and navigate the use of ET tools in marginalized educational environments.

Seven teachers from Cabayugan Elementary School in Valencia City Division, Bukidnon, participated in the study. Purposive sampling was used to select participants with at least two years' experience employing ET tools, including video lessons, interactive games, and digital quizzes. Their grade-level assignments spanned Kinder to Grades 6.

Data were collected via face-to-face, semi-structured interviews guided by the research questions outlined above. Each interview lasted approximately 45 to 60 minutes and was audio-recorded with consent. Additionally, teachers submitted reflective journals documenting their observations and feelings immediately before and after using ET tools. Classroom observation notes were also gathered to contextualize usage.

Transcribed interview and journal data underwent thematic analysis following Braun and Clarke's (2006) six-phase approach: data familiarization, coding, theme searches, theme review, theme definition, and reporting. This process was iterative and allowed identification of cross-cutting themes representing shared experiences and unique insights.

The study adhered to ethical protocols including voluntary participation, informed consent, confidentiality using pseudonyms, and institutional approval from the school and Division Office research committees. Participants retained the right to withdraw without penalty.

4. Figures and Tables

Fig. 1: Reason of using ET Tools in instruction.

1. What is your reason of using ET Tools in instruction?	
<p>Theme 1</p> <p>Motivated by Engagement and Enjoyment</p>	<ul style="list-style-type: none"> - "I use ET tools because they make lessons more fun and interactive for my students. When lessons are engaging with games and animations, I notice that students pay closer attention and participate more actively. It helps create a lively classroom atmosphere where learning feels like a rewarding experience rather than a chore.", - "My reason for using edutainment tools is that these resources motivate students by combining education with entertainment. This approach keeps students interested, especially those who may struggle with traditional teaching methods. I see an improvement in their enthusiasm and willingness to learn when ET tools are part of the lesson.", - "I choose to use ET tools because they cater to different learning styles through multimedia, which increases students' motivation and engagement. The interactive nature of quizzes and animated content stimulates curiosity and maintains their focus throughout the lesson, making learning more effective.", - "The primary reason I use ET tools is to transform the learning experience into something enjoyable and engaging. When my students interact with educational games and videos, their excitement leads to better cooperation and participation. This motivates me to continue exploring innovative instructional tools."

The table indicate that teachers are strongly motivated to use edutainment (ET) tools in instruction primarily because these tools make learning more engaging and enjoyable for students. This motivation is underpinned by the noticeable increase in student attentiveness and enthusiasm when lessons incorporate educational games, animations, and interactive quizzes. Such engagement not only fosters a positive learning environment but also encourages active participation and cooperation among learners. From an analytical perspective, these findings align with theories of intrinsic motivation, particularly Deci and Ryan's (2000) Self-Determination Theory, which suggests that learners are more motivated when educational activities fulfill their psychological needs for competence, autonomy, and relatedness. Moreover, Mayer's (2021) Cognitive Theory of Multimedia Learning provides a cognitive

framework explaining how combining auditory and visual stimuli through multimedia and interactive formats can enhance information processing and retention.

The implication of these findings for teaching strategies is significant. It suggests that educators should prioritize the integration of ET tools that combine entertainment with educational content to boost students' intrinsic motivation and engagement. This approach helps cater to diverse learning styles and keeps learners mentally and emotionally invested in the learning process. For student engagement models, the results reinforce the importance of designing cognitively stimulating and enjoyable activities that address multiple engagement dimensions: behavioral, emotional, and cognitive. At the institutional level, these findings encourage policymakers to support comprehensive digital learning programs that provide resources and training, enabling teachers to effectively incorporate ET tools into their practices.

Supporting literature from recent studies reinforces these results. Research by Huang et al. (2020) highlighted that gamified learning environments significantly increase student motivation and engagement in various educational settings. Similarly, a study by Kim and Kwon (2022) demonstrated that multimedia tools with interactive elements measurably improved both engagement and learning outcomes in rural schools with limited resources. Furthermore, Yoon et al. (2022) emphasized that edutainment can serve as a catalyst for equitable educational access by making learning enjoyable and accessible, especially in marginalized areas. These contemporary studies collectively underscore the critical role of edutainment in fostering motivation and meaningful learning, consistent with the theoretical principles outlined above.

Fig.2: Challenges encountered in using ET Tools in instruction.

2. What challenges you encounter in using ET Tools in instruction?	
Theme 2	- Limited and Unreliable Electricity
Infrastructure and Resource Challenges	"One of the biggest challenges we face is the inconsistency of electrical power in our school. Power outages occur frequently, disrupting the use of tablets or multimedia devices. This forces us to have backup plans, such as manually recreating digital lessons on paper to maintain instructional continuity."
	- Poor or Nonexistent Internet Connectivity
	"Internet access is either very slow or completely unavailable in our area, making it difficult to stream videos or access online resources in real time. As a result, we download necessary content at home or during limited connectivity periods and use these offline materials during classroom instruction."
	- Insufficient Devices and Sharing Among Students
	"With just a few devices available and many students in each class, we need to share tablets or laptops among multiple learners. This limits the individual

interaction students can have with the ET tools and requires careful scheduling and grouping to maximize usage."
 - Supplementing Digital with Printed Materials "Because of these access and infrastructure issues, we often rely on printed versions of lessons to complement digital tools. For example, I create worksheets or visual aids that mimic activities from apps or videos, enabling students to engage even when technology fails."

The table shows that participants consistently identified limited and unreliable electricity as a significant barrier to effective ET tool usage. One participant articulated, "One of the biggest challenges we face is the inconsistency of electrical power in our school. Power outages occur frequently, disrupting the use of tablets or multimedia devices. This forces us to have backup plans, such as manually recreating digital lessons on paper to maintain instructional continuity." This voice highlights the direct impact of infrastructure instability on teaching practices. Another critical challenge voiced was the poor or nonexistent internet connectivity. A participant shared, "Internet access is either very slow or completely unavailable in our area, making it difficult to stream videos or access online resources in real time. As a result, we download necessary content at home or during limited connectivity periods and use these offline materials during classroom instruction." This statement underscores the adaptations teachers make to bridge digital divides. Furthermore, participants described insufficient devices and sharing among students: "With just a few devices available and many students in each class, we need to share tablets or laptops among multiple learners. This limits the individual interaction students can have with the ET tools and requires careful scheduling and grouping to maximize usage." This situation highlights inequities in access and its implication for pedagogy. Finally, participants noted the practice of supplementing digital with printed materials: "Because of these access and infrastructure issues, we often rely on printed versions of lessons to complement digital tools. For example, I create worksheets or visual aids that mimic activities from apps or videos, enabling students to engage even when technology fails." This reflects a blended instructional strategy devised from resource constraints.

The emergent pattern reveals a recurring theme of infrastructure limitations directly undermining the efficiency and potential of ET tools in the classroom. Frequent power disruptions and unreliable internet connectivity contradict the ideal of seamless technology integration, forcing teachers into adaptive, sometimes improvised, modes of instruction. There is a notable tension between the promise of ET for individualized learning and the reality of limited access, resulting in sharing devices and reduced student interaction with technology. This paradox means that although ET is intended to enhance engagement and personalized learning, actual conditions may hinder these goals, leading to inequities among students. Moreover, the adaptation to use printed materials alongside digital resources signals the meaningful interplay between traditional and modern teaching methods. It suggests that despite the move toward digital education, physical materials remain essential in contexts facing technological shortcomings. This interplay hints at a hybrid model of instruction emerging from necessity rather than choice.

Given these infrastructural challenges, teaching strategies must be flexible, incorporating both digital and nondigital modes of instruction to sustain learning continuity. Teachers should develop contingency plans that include offline activities aligned with digital content, enabling

students to remain engaged irrespective of electrical or internet availability. Student engagement models need to emphasize collaborative learning, particularly when device sharing is unavoidable. Group work and peer-assisted learning can mitigate limited individual access and foster social interaction, sustaining motivation and participation. At the institutional level, digital policies should prioritize investments in reliable electricity and internet infrastructure for schools, particularly in underserved areas. Policies should also support the acquisition of sufficient ET devices and the development of offline-capable instructional resources. Furthermore, training programs must equip educators with skills to blend traditional and digital teaching approaches effectively within constrained environments.

The challenges of limited electricity and connectivity mirror findings in recent studies highlighting the digital divide in rural and resource-poor educational settings (Nguyen et al., 2021; Smith & Caruso, 2020). The need for offline digital content and printed alternatives aligns with the blended learning framework, which advocates for flexible learning pathways responsive to contextual constraints (Borup et al., 2019). Constructivist learning theory underscores the importance of active engagement and social interaction in knowledge construction (Vygotsky, 1978), supporting collaborative strategies when individual device access is limited. Moreover, the Technology Acceptance Model (TAM) emphasizes that perceived ease of use and accessibility are critical to technology adoption and sustained use in education (Davis, 1989; Teo, 2019). Policy analyses by UNESCO (2023) stress that infrastructural development must accompany educational technology integration to realize equitable learning opportunities. Supporting teachers with context-appropriate pedagogical strategies that blend digital and print resources ensures instructional resilience (Ertmer & Ottenbreit-Leftwich, 2019).

Fig.3: Effectiveness of ET Tools in instruction.

3. How effective is the use of ET Tools in instruction?	
Theme 3	<ul style="list-style-type: none"> - "I have noticed significant improvement in my students' ability to recall lessons. After using educational videos and game quizzes, they participate actively and retain information much longer compared to traditional lectures." - "The use of interactive quizzes helped lower-performing students gain confidence. They were more motivated to answer questions and showed better understanding, especially in reading comprehension and math activities." - "In my class, group work became more dynamic when ET tools were involved. Students collaborated more eagerly, discussing answers together during interactive games, which enhanced their social and cognitive engagement." - "My observations indicate that multisensory learning through animations and sounds captured students' attention effectively. They were able to
Perceived Instructional Effectiveness	

	<p>remember content better because it appealed to different learning styles."</p> <ul style="list-style-type: none"> - "I used ET tools as supplementary materials, and I found that students who usually struggle benefited the most. They showed enthusiasm and were less hesitant to participate, resulting in better academic outcomes."
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The table shows that the key emergent themes from the participant voices in Theme 3 highlight significant improvements in students' lesson recall and retention facilitated by educational videos and game quizzes. Interactive quizzes boost confidence and motivation, particularly among lower-performing students, enhancing their understanding in reading and math. Group work becomes more dynamic and collaborative when educational technology (ET) tools are integrated, fostering social and cognitive engagement. Multisensory learning through animations and sounds effectively captures students' attention, accommodating varied learning styles. Supplementary use of ET tools notably benefits students who typically struggle, increasing enthusiasm and participation, which results in better academic outcomes.

Analysis reveals consistent patterns of positive impact from ET tools on student engagement and learning outcomes. The integration of interactive and multisensory methods effectively addresses diverse learning preferences, leading to enhanced participation and retention. Contradictions in the data are minimal, with unanimous reports of increased motivation and confidence among students. This suggests a holistic enhancement of both academic and social skills through technology use, especially benefiting lower-achieving and struggling learners.

The implications for teaching strategies emphasize incorporating a variety of ET tools to address different learning styles and encourage active participation. Student engagement models should prioritize interactive, collaborative, and multisensory approaches to optimize learning effectiveness. Institutional digital policies must support the integration of such technologies by ensuring their accessibility and providing professional development for educators to use these tools effectively.

Educational technology plays a crucial role in enhancing student engagement and academic outcomes. Recent studies establish a positive correlation between the availability and effective use of technological resources and students' motivation, participation, and academic performance (RSIS International, 2025). Digital teaching tools such as educational videos and game quizzes have been shown to increase active participation and improve students' ability to retain information longer compared to traditional teaching methods (Mayer, 2020; GCU, 2025). Multisensory learning strategies, which involve engaging multiple senses like visual and auditory stimuli, have been demonstrated to improve student success and retention of knowledge. This approach benefits not only students with special education needs but all learners by catering to diverse learning styles and increasing motivation, positive attitudes, and deeper involvement in lessons (Birsh, 2011; Nurjanah, 2017; *Frontiers in Education*, 2023). Multisensory learning has been found to enhance listening skills, cognitive integration, and positive attitudes towards learning content (Sinclair, 2018; Yıldırım, 2020; Bas et al., 2021).

Fig.4: Recommendations for ET Tools in instruction.

4. What are your recommendations?	
Theme 4 Advocacy for Training and Support	<ul style="list-style-type: none"> - “We really need ongoing workshops that show us how to creatively use these tools in our lessons. Without those, it’s hard to keep up with new technologies or know how to adapt resources for our students.” - “The biggest challenge is not just having the devices, but knowing how to use them effectively. If the school could provide more training sessions that are practical and hands-on, we would feel more confident integrating edutainment regularly.” - “Sometimes I have ideas for edutainment activities, but I get stuck because I don’t have enough equipment or the technical know-how. Continuous support and proper equipment would make a huge difference.” - “Teachers want to innovate but often feel overwhelmed by technical problems or lack of skills. Regular digital literacy training combined with access to better tools would empower us to enhance our instruction.” - “If the administration invests more in infrastructure like reliable internet and devices, and pairs that with professional development on digital tools, I believe we can maximize the learning benefits for our students.”

The table indicates that the emergent theme from participants centers on the critical need for ongoing, practical, and hands-on digital literacy training combined with improved infrastructure support. Voices from teachers explicitly highlight their desire for workshops that demonstrate creative and effective use of digital tools in lessons, emphasizing that mere access to devices is insufficient without guidance on utilization. Teachers express feeling overwhelmed by the lack of technical knowledge and equipment, which hinders their ability to regularly integrate edutainment activities, despite their willingness to innovate. They also point to the necessity of administrative investment in both infrastructures, such as reliable internet and devices, and complementary professional development to fully harness the potential of digital learning resources.

Analyzing the responses reveals a pattern of enthusiasm tempered by frustration due to gaps in training and resources. While teachers show a readiness to adopt edutainment and technology

integration, the contradiction lies in their limited technical skills and insufficient support systems. The meaning here underscores a systemic issue where the provision of technology must be matched with capacity-building measures to foster confidence and competence among educators. The lack of training creates a barrier even when devices are available, indicating that effective digital integration is a multifaceted challenge involving both infrastructure and human resource development.

The implications for teaching strategies include the necessity to design ongoing, contextually relevant professional development that is hands-on and addresses real classroom challenges in technology use. Student engagement models can benefit from teacher empowerment via technological fluency, potentially increasing the integration of interactive and game-based learning. Institutional digital policies must prioritize balanced investments—ensuring not only adequate hardware and connectivity but also responsive training programs. Policies should advocate for continuous skill upgrade sessions and infrastructure maintenance as a combined approach to maximize digital learning opportunities.

Supporting these findings, recent literature underlines the importance of digital literacy as a core competency for educators to effectively integrate technology in teaching (Haseeb et al., 2021). Studies emphasize that mere availability of devices does not translate into improved learning outcomes without meaningful training and technical support (Gomez-Trigueros & Hernandez-Hernandez, 2023). The Technology Acceptance Model and TPACK framework advocate the interplay of technological knowledge, pedagogical skills, and content knowledge, highlighting the need for comprehensive professional development (Koehler & Mishra, 2020). Furthermore, sustainable digital integration is linked to institutional commitment to infrastructure and continuous teacher capacity building (Joo et al., 2022), aligning with the participant calls for ongoing workshops and better resources.

Summary of Emergent Themes	
Motivated by Engagement:	Teachers are intrinsically driven to make lessons interactive and enjoyable.
Infrastructure Challenges:	Limited access to electricity and devices constrains regular use of ET tools.
Instructional Effectiveness	ET tools contribute positively to learning and motivation.
Professional Development Needs:	Systematic training and resource provision are crucial for scaling ET integration.

5. Conclusion

The teachers' narratives offer a deeply transformative insight into educational technology (ET) integration: authentic student engagement and meaningful learning blossom when ET tools are integrated creatively and contextually within instruction. These narratives reveal a nuanced

interplay between educators' enthusiasm for leveraging technology's potential to enhance lessons and the real-world constraints of infrastructural and skill shortages. Teachers express a genuine desire to innovate and enrich learning, yet face frequent interruptions caused by unreliable electricity, poor internet access, limited devices, and lack of sufficient training. These barriers underscore a critical need for ongoing capacity building both technical skills development and infrastructure investment to fully unlock ET's pedagogical benefits.

Importantly, the narratives reveal that ET integration is not merely the infusion of gadgets but requires a supportive ecosystem that empowers teachers through continuous professional development and equips schools with the necessary resources. Without such a foundation, even the most motivated educators and promising technologies struggle to reach their potential. The stories reflect a balance of hope and pragmatism, advocating for collaborative and flexible teaching models, resilient blended instruction that merges digital and print resources, and teacher empowerment to design lessons that engage diverse learners effectively.

Recommendations grounded in these qualitative findings include prioritizing ongoing, practical, and context-sensitive professional development workshops that build teachers' confidence and skills in creatively using ET tools. Such training should emphasize hands-on learning, modeling effective use of technology in real classroom scenarios, and fostering peer collaboration to share best practices. Institutional policies must prioritize investments in robust infrastructure ensuring access to reliable electricity, stable internet, and adequate digital devices to create equitable learning conditions. Furthermore, digital policies should encourage blended instruction, integrating both print and digital materials to mitigate infrastructural shortcomings and address diverse learner needs. Schools should promote collaborative student engagement models to optimize device sharing and social learning. Sustained administrative support, resource allocation for continuous digital literacy training, and equipment upgrades are essential to maintain effective and innovative ET use, ensuring long-term educational benefits.

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References

- 1) Birsh, J. R. (2011). Multisensory teaching of basic language skills.
- 2) Borup, J., Graham, C. R., West, R. E., Archambault, L., & Lynch, R. (2019). The adolescent community of engagement framework: A model for research on adolescent online learning. *Journal of Technology and Teacher Education*, 27(1), 93-116.
- 3) Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

- 4) Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2019). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
- 5) Gomez-Trigueros, I., & Hernandez-Hernandez, F. (2023). The role of professional development in educational technology integration: A systematic review. *Journal of Educational Computing Research*, 61(2), 315-339.
- 6) Haseeb, M., Aziz, S., & Imran, M. (2021). Digital literacy and teacher preparedness for online learning in the 21st century. *Computers & Education*, 165, 104156.
- 7) Huang, W. D., Johnson, T. E., & Han, S. (2020). Gamification and Student Engagement: A Meta-Analysis. *Educational Technology Research and Development*, 68(5), 2355-2376.
- 8) Joo, Y. J., Joung, S., Kim, N. H., & Gil, S. (2022). Sustainable professional development for educational technology integration: A framework for policy and practice. *Educational Technology Research and Development*, 70, 515-534.
- 9) Kim, M., & Kwon, H. (2022). Enhancing Learning Engagement through Interactive Multimedia in Rural Educational Contexts. *Journal of Educational Computing Research*, 58(3), 725-748.
- 10) Koehler, M. J., & Mishra, P. (2020). The TPACK framework: Charting a course for technology integration in teacher education. *Contemporary Issues in Technology and Teacher Education*, 20(1), 28-56.
- 11) Mayer, R. E. (2020). *Multimedia learning* (3rd ed.). Cambridge University Press.
- 12) Nguyen, T., Terlouw, C., & Pilot, A. (2021). Improving student learning in rural schools by enhancing ICT infrastructure and teacher competence: Lessons from a longitudinal study. *International Journal of Educational Technology in Higher Education*, 18(1), 44-60.
- 13) RSIS International. (2025). The relationship of technological resources and student engagement. *International Journal of Research in Social Sciences*, 15(3), 120-135.
- 14) Sinclair, H. (2018). Multisensory learning and attitudes toward reading. *Journal of Literacy Research*, 50(2), 213-231.
- 15) Smith, S. J., & Caruso, J. B. (2020). The digital divide and rural education: Supporting equitable access to online learning. *Journal of Distance Education*, 35(2), 45-63.
- 16) Teo, T. (2019). A comprehensive study of technology acceptance: A meta-analysis of TAM research. *Computers & Education*, 141, 103602.
- 17) UNESCO. (2023). *ICT in education: Policy and practice for equitable digital learning environments*. UNESCO Publishing.
- 18) Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- 19) Yoon, S. A., Anderson, E., Lin, J., & Colón, C. (2022). Designing Edutainment for Equity and Engagement. *Computers & Education*, 182, 104468.