**Integrating Screen and Play: Through the Lens of Early Childhood Education Teachers**

**Abstract**

Information and communication technology (ICT) has quickly become part of a modern life and now used in many different areas including education. Early childhood education teachers were challenged to balance the integration of technology and play-based learning in teaching. This study explored the lived experiences and strategies of six teachers as they navigate this integration in early childhood classrooms. Using a phenomenological approach, we gathered experiences through an in-depth interview from public and private schools in Davao Region. The extracted themes are: Improved Digital Literacy, Students’ Engagement, Fostering Creativity and Social Skills, Creating Balance and Holistic Learning Experience. Teachers shared that while technology can boost engagement and support learning, it requires careful planning to balance it with the hands-on, social benefits of play. They spoke about challenges like limited time, resources, and the need to manage screen time effectively. To overcome these, they used creative strategies like pre-selecting meaningful interactive videos, connecting screen activities to play, and prioritizing holistic child development. This study highlighted the need for more teacher training, better access to tools, and ongoing support to help educators create enriching and balance learning experiences for young children.

*Keywords: Play-Based Learning, Technology Integration, Digital Play, Holistic Learning, ICT Education*

**Introduction**

 Using technology in early childhood education is changing the way young children learn and build basic skills. As digital tools such as electronic books, tablets, interactive apps, and online learning platforms become increasingly prevalent, educators and policymakers are faced with both opportunities and challenges in leveraging these resources effectively (Kaynar et al., 2020). While developed nations often benefit from robust technological infrastructure and well-resourced educational policies, emerging economies face challenges such as limited access to devices, inadequate teacher preparation, and varying cultural perceptions of screen-based learning (Selwyn, 2019). Despite these differences, innovative approaches in low-resource settings demonstrate that effective digital integration is possible even with constrained budgets (Zosh et al., 2022).

 Globally, digital literacy initiatives in ECE vary in scope and implementation. Developed economies, such as those in North America and Europe, often adopt structured national policies promoting coding, digital storytelling, and interactive media literacy (OECD, 2021). For instance, Finland’s early education curriculum incorporates play-based digital learning, while Australia’s Digital Technologies Curriculum introduces computational thinking from preschool (Falloon, 2020). In contrast, emerging economies such as India, Brazil, and Kenya often face infrastructural and socioeconomic barriers, yet some have pioneered low-cost, scalable solutions like mobile-based learning apps and community digital hubs (UNICEF, 2022). These initiatives highlight both the potential and challenges of digital inclusion in resource-limited settings.

 In the Philippines, many schools have increased technology use in early childhood education, especially after the pandemic pushed digital learning forward. Kindergarten teachers often face challenges balancing screen time with traditional play, due to limited device access, unreliable internet, and lack of training in both public and private schools. A recent kindergarten report from Davao City revealed that students struggled most with alphabet knowledge (Parreño, 2024). Research shows that teachers must learn to use new tools to support children's development. As students’ learning changes with more technology exposure, educators need to integrate digital resources into the curriculum (Timotheou et al., 2023).

This research offers valuable insights into the challenges and strategies involved in managing the dual demands of modern technology and traditional learning methods. Additionally, this study also contributes to Sustainable Development Goal 4, which promotes inclusive and quality education, by addressing how early childhood educators can sustainably integrate technology in ways that support holistic learning.

This study aimed to explore the lived experiences of kindergarten teachers in Integrating Screen and Play. This study was anchored in Sociocultural Theory, primarily developed by Lev Vygotskyy (Vygotsky, 1978) and further elaborated by Scott and Palincsar (2013). This theory emphasizes that children's learning and cognitive development are fundamentally shaped through social interactions by means of play and the use of cultural tool such as language, symbols, and technology to facilitate learning experiences in the context of early childhood education.

According to Sociocultural Theory, the learning process is not an isolated cognitive event but is embedded in social contexts where more knowledgeable others such as teachers, as they play a key role in scaffolding children's learning. This scaffolding ensures that learners are guided within their Zone of Proximal Development (ZPD), allowing them to accomplish tasks they could not complete independently.

The central focused of the study is to know and explore the lived experiences of kindergarten teachers on balancing technology integration and play-based learning in early childhood education.

*Figure 1. Paradigm of the study (Sociocultural Theory)*

**Methodology**

This study employed phenomenological qualitative research methods for exploring and describing the lived experiences of teachers in the use of technology in early childhood education. It focused on capturing teachers' perspectives on the integration of screen and play time without manipulating or controlling variables. According to Lim (2023), this methodology emphasizes the depth and richness of context and voice in understanding phenomena and allows us to collect and analyze data. We conducted in-depth interviews to elicit the participant’s experiences, perceptions, thoughts and feelings (Moser & Korstjens, 2018).

The study involved 6participants from a mix of private and public schools in Davao Region to ensure diverse perspectives. The participants have at least two years of experience in early childhood education to provide insight on the integration of traditional play-based practices and application of digital tools. Within this sampling strategy participants have first-hand experience with the phenomenon, the ability to communicate with the researcher, and willingness to tell their story (Ataro, 2020).

The Inclusion Criteria are Kindergarten teachers who has experience using technology in the classroom (tablets, laptop, television, ppt, CAI), apply play-based learning approaches and is willing to discuss their perspectives on balancing technology and play. We obtained the approval of the Holy Cross of Davao College’s Research and Ethics Committee (REC) to be ethically compliant. A semi-structured interview guide, equipped with open-ended questions was developed and explore kindergarten teachers’ perspectives regarding the act of balancing screens as well as play within technology integration.

We have identified suitable participants of the research based on their years of teaching experience in kindergarten. Potential participants were invited to complete a brief pre-screening questionnaire to confirm their eligibility. The questionnaire collects information on their teaching role, years of experience, and familiarity with technology and play-based learning strategies and practices used in the classroom. The participants were selected through purposive sampling and received the invitations outlining the study’s purpose and its confidentiality measures as well as voluntary participation. After obtaining informed consent, certain interviews were conducted. The interviews were in-depth. Recordings were transcribed, subsequently anonymized, and then manually reviewed to determine accuracy.

Data was analyzed to identify themes and patterns with a systematic and respectful approach, ensuring alignment to the study’s objectives. The data collected was analyzed via thematic analysis, a flexible approach that allows researchers to identify as well as report patterns or themes within the qualitative data that are then interpreted for their natural meaning ([Liebenberg et al., 2020](https://journals.sagepub.com/doi/full/10.1177/16094069231205789#bibr44-16094069231205789); [Xu & Zammit, 2020](https://journals.sagepub.com/doi/full/10.1177/16094069231205789#bibr86-16094069231205789)). The process involved the familiarization with the data through iterative reading of the transcripts. Initial coding works to identify meaningful statements or ideas. These statements or ideas are relevant to the research questions. The theme development came by way of grouping similar codes together in order to form themes overarching that reflect perspectives main on integration and play. Interpretation of all the themes to fully understand how the teachers perceive and then navigate the integration of technology and play. We used software to assist in the data organization and coding process, ensuring systematic analysis.

**Results**

The paradigm connects the emerging themes and subthemes from the in-depth interviews of six ECE teachers who shared their lived experiences on the integration of technology and play-based in teaching.

Creating Balance and Holistic Learning Experience

Improved Digital Literacy

Fostering Creativity and Social Skills

Students’ Engagement

*Figure 2: Emergent Themes and Subthemes on Lived Experiences of ECE Teacher Grounded on Sociocultural Theory*

The integration of technology and play into early childhood education, particularly in Davao Region, highlighted the delicate balance teachers must achieve between embracing modern tools and preserving traditional play-based practices. Teachers showed extraordinary adaptability, learning to used digital resources despite generational gaps and limited training. They recognized technology’s ability to enhanced engagement and creativity while maintaining the critical role of hands-on activities in fostering social and emotional development. Challenges such as lack of internet access and time constraints are met with resourcefulness, as teachers find innovative ways to incorporate both digital tools and traditional methods. This balance ensures a holistic learning experience that nurtures children’s curiosity, social skills, and love for learning, reflecting the resilience and dedication of educators in adapting to the changing needs of their students.

Theme 1: Improved Digital Literacy

Teachers showed a remarkable progress in enhancing their digital literacy, a vital skill in today’s educational system. Despite generational challenges, many educators display a strong willingness to adapt, as evidenced by P1’s statement:

*“Integrating technology, um, is a big challenge for me considering nga dili ni akong generation, pero isip usa ka maestra, um, I need to meet my students’ interest ug nga dili pud sila ma ulahi. With 15 years of experience, nakita nako unsa ang kalahian sa una og sa karon, so, um, gina paningkamotan nako karon nga makasabay sa kani nga generation para sa akong mga bata.”*

*“Integrating technology, um, is a big challenge for me considering that this is not my generation, but as a teacher, um, I need to meet my students’ interest and that they don’t fall behind. With 15 years of experience, I’ve seen the difference between the past and the present, so, um, I’m trying to keep up with this generation for my children.”*

Their dedication to learning new tools and integrating technology into their teaching reflects a genuine effort to connect with the interests of digitally literate learners. Such efforts not only bridge the generational gap but also ensure that educators remain relevant and effective in fostering meaningful learning experiences for young students.

Theme 2: Students’ Engagement

Integrating technology and play into the classroom has proven to be powerful tools for boosting student engagement. Teachers have noticed that digital resources like videos, interactive storytelling, and presentations spark excitement and interest in their lessons. P3 noted:

*“After using videos in class, um, like nursery rhymes, nakita nako akong pupils nga mas active og happy sila. Nalingaw pud sila mokanta og motan-aw sa mga videos.”*

*“After using videos in class, um, like nursery rhymes, I saw my pupils being more active and happy. They even enjoyed singing and watching the videos.”*

Theme 3: Fostering Creativity and Social Skills

Integrating play-based activities alongside technology fostered both creativity and social skills in young learners. Teachers highlighted the role of traditional play, such as role-playing, building blocks, and group games, in helping children express themselves and connect with peers. P2 shared:

*“I let my students engaged first in free play. Nagdula sila og blocks og puzzles sa dili pa mi mag start sa klase para energized sila.”*

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*“I let my students engaged first in free play. They play blocks and puzzles for them to be energized before we start our class.”*

P6 added that play-based and group activities are highly important as it enabled children to express themselves and helped to build interpersonal relationships among their classmates, he explained:

*“Gagamit ko ug mga hands-on og group activities, um, sama sa drawing, coloring, ug role-playing para mas mahanas ang ilang creativity and boost their confidence and social skills.”*

*“I used hands-on and group activities, um, like drawing, coloring, and also role-playing to develop their creativity and boost their confidence and social skills.”*

Theme 4: Creating Balance and Holistic Learning Experience

Teachers emphasized the importance of integrating technology and traditional play to create a well-rounded educational experience. Through time management and balancing techniques, educators ensure that digital tools complement rather than replace play. P5 shared:

*“Para mabalance ang screen og play, um, I limit screen time to short, meaningful activities like showing an educational video or interactive game. Human kay mag hands-on activities mi like drawing, building blocks, ug outdoor games.”*

*“To balance screen and play, I limit screen time to short, meaningful activities like showing an educational video or interactive game. After that, we move to hands-on activities like drawing, building blocks, and outdoor games.”*

P4 shared his strategies on balancing screen and play, he added:

*“Ang akong gibuhat kay mag establish sa og routine og classroom rules usa pa nako ma achieve ang play-based strategies para mabalance nako ang pag integrate sa technology sa akong klase.”*

*“I did establish routines and classroom rules before I can achieve play- based strategies in order for me to balance the integration of the technology in my class.”*

 As researchers who understand the Philippine education system, we approached this study with respect for the voices of kindergarten teachers. We saw ourselves as both observers of their teaching and supporters of effective, age-appropriate methods. This study confirmed our belief that technology doesn’t need to be expensive or high-tech to work well, especially when it’s guided by good teaching and local creativity. We aimed to connect the teachers’ experiences with the larger academic world, making sure their ideas were respected and clearly shared.

**Discussions**

The first theme emphasized the initial challenges many teachers faced when incorporating technology into their classrooms. This sentiment reflected a common struggle among older educators who feel out of their depth in adapting to new digital tools. Despite these hurdles, the teachers expressed a strong commitment to learning and growing for the benefit of their students. It indeed shows a remarkable progress for teachers as digital literacy is one of the important skills in this generation (Lauricella, Herdzina, & Robb, 2020). Teachers’ willingness to embrace change showcases their evolving roles, from knowledge providers to adaptive facilitators. The experiences aligned with research suggesting that intrinsic motivation and belief in the potential of technology are critical factors in successful integration (Ertmer et al., 2012). The nobility of this approach lies in the teachers’ self-driven efforts to bridge generational gaps and align their methods with 21st-century learning needs.

Students’ engagement as the second theme proved that technology integration boosts the participation of students in class discussion and activities. The study by Rizk & Davies, (2021) highlighted how interactive technologies, such as video presentations, digital games, and learning apps, have been effectively used to capture students' attention and foster active involvement in learning activities. Digital technology fostered interactive learning experiences, where children and teachers co-navigate digital platforms to explore, create, and problem-solve (Undheim, 2022).

The third theme underscored the creativity and social skills of kindergarten students in terms of integrating play-based activities alongside technology. Traditional games, when used in play-based learning, enhanced the acquisition of social skills such as resilience, self-esteem, self-confidence and cooperation (Mwinsa, & Dagada, 2025). By engaging in play, kindergarten pupils learn how to interact with others, share ideas, and navigate emotions in a safe and supportive environment. The study conducted by Aguilar (2020) emphasized that through structured and free-play activities, children not only build friendships but also gain the ability to express themselves, manage conflicts, and understand empathy. These experiences lay the groundwork for maintaining meaningful and healthy relationships as they grow.

The final theme explored the creative strategies teachers used to balance digital tools with traditional, hands-on activities. This method ensured that screen time served as a tool to enhance, rather than dominate, the learning process. Teachers recognized the importance of play in fostering holistic development. According to Lalani (2020), play-based learning is foundational for developing creativity, critical thinking, and social skills. The innovative aspect of these strategies lies in their ability to seamlessly integrate short, meaningful screen sessions with dynamic, interactive play, addressing both cognitive and physical developmental needs. Through play, children engage in hands-on exploration, problem-solving, and collaboration, which are critical for their holistic development (Taylor & Boyer, 2020)**.**

 The study showed that even in rural places with few resources, kindergarten teachers used technology in smart and helpful ways. They did this by being creative, flexible, and focused on making learning fun for kids, even without much training or tools. At first, people thought it would be hard to mix technology with play, but teachers proved they can do both well. Their simple ways of teaching can be good examples for other schools too. In the future, more support like offline lessons, solar-powered devices, and teacher training could help them even more.

Several key challenges faced by kindergarten teachers in integrating screens and play play-based learning, particularly in low-resource settings like schools in Davao Region. One of the primary challenges encountered by teachers in rural areas is the lack of professional development opportunities in integrating technology into their classrooms. The major barrier to technology integration in rural kindergarten classrooms is the lack of consistent access to electricity and digital devices. This disrupts the teachers’ ability to use digital resources as planned, and they are forced to rely on limited alternatives, which may not be as effective.

**Conclusion**

The lived experiences of early childhood education teachers overcome the challenges on integrating technology and play in the classroom. The study concluded that the integration of technology and play-based learning in kindergarten pupils with the used of creative strategies had increased student’s engagement and participation. It was also emphasized the importance to balance screen and play activities to foster creativity and social skills. In order to heightened students’ curiosity, child-centered approach is being applied. It was also emphasized in the study that accessibility to resources and proper training of teachers with an ongoing support will create a balanced holistic learning experiences for young children.

**Ethical Approval:**

The researcher obtained the approval of the Holy Cross of Davao College’s Research and Ethics Committee (REC) to be ethically compliant.

**Consent:**

Written informed consent was obtained from all participants before the interviews begin, ensuring that they understand all of the purpose of the study as well as their right to confidentiality. Participants’ names and all identifying information were kept confidential throughout the research process. The participants have the ability to withdraw from the study at virtually any point. There are no consequences at all.

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**References**

Aguilar, S. F. (2024). Play-based learning concept and development of teaching among kindergarten teachers. *European journal of education studies*, *11*(6).

Ataro, G. (2020). Methods, methodological challenges and lesson learned from phenomenological study about OSCE experience: Overview of paradigm-driven qualitative approach in medical education. *Annals of Medicine and Surgery*, *49*, 19-23.

Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & education*, *59*(2), 423-435.

Lalani, A. P. (2020). Play-based Curriculum and the Holistic Development of the Child.

Lauricella, A. R., Herdzina, J., & Robb, M. (2020). Early childhood educators’ teaching of digital citizenship competencies. *Computers & Education*, *158*, 103989.

Liebenberg, L., Jamal, A., & Ikeda, J. (2020). Extending youth voices in a participatory thematic analysis approach. *International Journal of Qualitative Methods*, *19*, 1609406920934614.

Lim W. M. (2023). Philosophy of science and research paradigm for business research in the transformative age of automation, digitalization, hyperconnectivity, obligations, globalization and sustainability. *Journal of Trade Science*, 11(2/3), 3–30. <https://doi.org/10.1108/JTS-07-2023-0015>

Moser, A. and Korstjens, I. (2018), “Series: practical guidance to qualitative research. Part 3: sampling, data collection and analysis”, European Journal of General Practice, Vol. 24 No. 1, pp. 9-18.

Mwinsa, G. M., & Dagada, M. (2025). Play-based learning: A pedagogical approach for social skills development in ECE learners in Zambia. *Social Sciences & Humanities Open*, *11*, 101396.

Kaynar, N., Sadik, O., & Boichuk, E. (2020). Technology in early childhood education: Electronic books for improving students’ literacy skills. *TechTrends*, *64*(6), 911-921.

Parreño, F. K. (2024). Alphabet Adventure: Gaming for Dynamic Alphabet Learning Fun. *Dalubhasang Guro*, *1*(1).

Rizk, J., & Davies, S. (2021). Can digital technology bridge the classroom engagement gap? Findings from a qualitative study of K-8 classrooms in 10 Ontario school boards. *Social Sciences*, *10*(1),

Scott, S., & Palincsar, A. (2013). Sociocultural theory.

Taylor, M. E., & Boyer, W. (2020). Play-based learning: Evidence-based research to improve children’s learning experiences in the kindergarten classroom. Early Childhood Education Journal, 48(2), 127-133.

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., ... & Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and information technologies*, *28*(6), 6695-6726.

Undheim, M. (2022). Children and teachers engaging together with digital technology in early childhood education and care institutions: A literature review. *European early childhood education research journal*, *30*(3), 472-489.

Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.

Xu W., Zammit K. (2020). Applying thematic analysis to education: A hybrid approach to interpreting data in practitioner research. *International Journal of Qualitative Methods*, 19, 1609406920918810. <https://doi.org/10.117ss7/1609406920918810>