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Beyond the Screen: Pre-Service Teachers' Views on Technology, Teacher Indispensability, and Play-Based English Instruction for Elementary Students

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ABSTRACT
This study explores pre-service English teachers' perspectives on three interrelated issues: the role of technology integration in learning, the enduring relevance of the teacher in the digital era, and effective strategies for teaching English to elementary students. Data were collected over a period of six months through open-ended written responses from six pre-service English teachers, selected via purposive sampling, and were analyzed using thematic analysis. The findings revealed three overarching themes. First, participants viewed technology as a facilitative tool that enhances engagement, access to information, and personalized learning, though its benefits depend on responsible, guided use. Second, teachers were seen as indispensable not for content delivery but for functions technology cannot replicate emotional support, critical thinking guidance, character development, and differentiated instruction. Third, participants favored students-centered, playful pedagogy (games, songs, storytelling, visual aids) grounded in positive reinforcement and psychological safety. These findings suggest that, for this small sample, technology and teachers were perceived as complementary rather than competing, with implications for balancing digital competence and relational skills in teacher education programs.

Keywords : Technology integration, Pre-service teachers, Teachers' role.

INTRODUCTION

The rapid advancement of digital technology has fundamentally reshaped the landscape of education in the twenty-first century. Classrooms today are no longer confined to textbooks, chalkboards, and face-to-face lectures; instead, they increasingly incorporate smartphones, laptops, multimedia presentations, educational applications, and internet-based resources as integral components of the teaching and learning process. Research consistently links this shift to gains in student engagement, with a large-scale systematic evidence map of studies conducted between 2007 and 2016 finding that digital technology has become deeply woven into the student experience and is associated with increases in behavioural, affective, and cognitive engagement (Bond et al., 2020). Similarly, more recent work on higher education contexts has shown that technology integration continues to shape teacher pedagogical strategies, professional practice, and student engagement, even as it challenges educators to adapt their methods to increasingly tech-savvy learners (Panakaje et al., 2024). As technology

becomes more deeply embedded in everyday life, it has also become an inseparable part of how students learn and how teachers are expected to teach.

Amid this technological transformation, a critical pedagogical question has emerged: to what extent should technology be integrated into the classroom, and what role remains for the human teacher? Scholarly frameworks such as Technological Pedagogical Content Knowledge (TPACK) have attempted to answer this by positioning technology not as a standalone solution, but as one of three interacting knowledge domains alongside pedagogical and content knowledge that teachers must integrate meaningfully to design effective instruction (Mishra, 2022) .This framing implies that technology's educational value is inseparable from the teacher's professional judgment in deploying it. At the same time, other scholars caution that an overreliance on technology risks diminishing the relational, emotional, and moral dimensions of education that only a human teacher can provide. A recent review examining whether teachers remain necessary in the age of artificial intelligence concluded that, despite AI's growing instructional capabilities, teachers continue to play an irreplaceable role in guiding students' socio-emotional development and in mediating the human dimensions of learning that automated systems cannot fully replicate (Gentile et al., 2023). This tension between technological enthusiasm and pedagogical caution is especially relevant for pre-service teachers, who are being trained to enter a profession in which digital fluency and traditional pedagogical skill must coexist.

This tension becomes even more pronounced in the context of teaching English to elementary school students. Young learners possess distinct cognitive and psychological characteristics short attention spans, a strong reliance on play and sensory engagement, and heightened sensitivity to classroom atmosphere that demand teaching strategies fundamentally different from those used with older learners. Foundational theories of second language acquisition offer a useful lens here: Krashen's affective filter hypothesis holds that emotional variables such as anxiety, motivation, and self-confidence can either facilitate or obstruct language acquisition, with low-anxiety, comfortable learning environments producing more favorable conditions for learners to acquire a new language (Andriani et al., 2025). Complementing this, physically responsive methods such as Total Physical Response which link new vocabulary to bodily movement in low-pressure, game-like activities have long been advocated as developmentally appropriate for young language learners. Together, these theoretical foundations suggest that effective English instruction at the elementary level depends not merely on the availability of digital resources, but on a teacher's ability to design engaging, low-anxiety, and developmentally appropriate learning experiences (Nqoma, 2026).

Despite the growing body of literature on educational technology and on teacher roles in the digital era, comparatively little attention has been paid to how pre-service English teachers individuals who are simultaneously students of pedagogy and future practitioners synthesize these issues in their own words. Their perspectives are particularly valuable because they occupy a unique vantage point: shaped by their own experiences as digital-native learners, while also being trained to critically reflect on pedagogical theory and practice. Understanding how this group perceives the value and limits of technology, the enduring significance of the teacher, and appropriate strategies for teaching English to children can

offer meaningful insight into how future educators are likely to approach classroom practice (Brown, 2025).

It is within this context that the present study seeks to explore pre-service English teachers' views on three interrelated dimensions of contemporary language education: (1) the role of technology integration in learning activities, (2) the continued relevance of the teacher in an increasingly technology-mediated era, and (3) the strategies considered most effective for cultivating elementary students' interest in learning English. By examining these three dimensions together, this study aims to move beyond a simplistic "technology versus teacher" dichotomy and instead illuminate how future educators envision a balanced, student-centered approach to English language teaching one in which technology functions as a supportive tool, the teacher remains an irreplaceable human anchor, and instructional strategies are designed around the developmental needs of young learners. Specifically, this study addresses the following research questions: (1) How do pre-service teachers perceive the role of technology in learning? (2) How do they view the continued relevance of teachers in the digital era? and (3) What strategies do they consider effective for teaching English to elementary school students? The findings are expected to contribute to the broader discourse on teacher education and to offer practical implications for the design of English language teacher training programs in the digital era.

METHODS

This study employed a qualitative research design with a descriptive-interpretive approach to explore pre-service English teachers' perspectives on three interrelated issues: the role of technology in learning, the enduring relevance of the teacher in the digital era, and effective strategies for teaching English to elementary students. This approach was chosen for its capacity to capture the depth and nuance of participants' reasoning rather than measuring predetermined variables. Participants consisted of six pre-service English teachers (P1–P6) at a private university in North Sumatra, selected through purposive sampling due to their dual positioning as digital-native learners and future educators trained in pedagogical theory. The demographic information of the participants can be seen in Table 1 below.

Table 1. The demographic information of the participants

Participants	Age	Gender	Year of Study	Teaching Experience
P1	23 y.o	Female	2.5 years	1 years
P2	20 y.o	Male	2.5 years	1.5 years
P3	20 y.o	Female	2.5 years	2 years
P4	25 y.o	Female	2.5 years	3 years
P5	20 y.o	Male	2.5 years	1 years
P6	21 y.o	Male	2.5 years	1 years

Data were collected through open-ended written responses addressing the three core areas above, allowing participants to elaborate freely in their own words including instances of

code-switching between Indonesian and English, which were preserved and translated where necessary to maintain the authenticity of their original meaning.

Data were analyzed using thematic analysis, involving familiarization with the responses, initial coding, pattern identification, and iterative refinement of themes. To enhance credibility, emerging themes were cross-checked against the raw data, and divergent responses were deliberately retained and reported to represent the full range of perspectives rather than an artificially uniform consensus.

RESULTS AND DISCUSSION

Technology as a Facilitative Tool, Not a Replacement for Traditional Learning

All six participants converged on the view that technology integration enhances rather than replaces conventional teaching. P3 explicitly stated that:

> "*technology should be viewed as a tool that enhances learning instead of replacing traditional teaching methods*," while P6 echoed this by noting that "*technology should support the learning process, not replace it*."

This view aligns closely with the Technological Pedagogical Content Knowledge (TPACK) framework, which positions technology not as a standalone solution but as one of three interacting knowledge domains alongside pedagogical and content knowledge that teachers must integrate meaningfully to design effective instruction (Mishra, 2022). Rather than treating technology as an independent driver of learning, P3 and P6's responses reflect an implicit understanding that its educational value depends on how thoughtfully it is combined with sound pedagogical judgment.

One of the most salient patterns within this theme is the way participants linked technology to heightened student engagement and motivation. P1, P2, and P5 each emphasized that multimedia tools videos, animations, games, and interactive quizzes transform lessons that might otherwise feel rigid or monotonous into experiences that are lively and easier to follow.

> P1 articulated this most directly, explaining *that technology makes students far more focused and actively engaged*, a claim substantiated by P2's observation that *students become more active learners "because they are not only listening to the teacher all the time,"* and P5 remark that *tools such as videos and apps make learning "more fun and not boring."*

These accounts reflect the pedagogical dimension of the TPACK framework, in which technology's contribution to student engagement is realized not through the tool itself but through its integration with deliberate pedagogical strategy selecting and sequencing digital resources in ways that actively involve students rather than positioning them as passive recipients of content (Mishra, 2022) .This is consistent with survey findings among pre-service teachers themselves, who report a degree of familiarity with TPACK principles even as gaps remain in translating that knowledge into confident classroom application (Gromik et al., 2024).

Taken together, these accounts suggest that participants perceive multimedia technology not merely as a supplementary aid, but as a catalyst that shifts students from passive recipients of information to active participants in the learning process. Closely related to this is the theme of unrestricted access to information, which P1, P2, P3, and P5 identified as a defining advantage of technology integration. Where learning was once confined to textbooks and teacher-led explanation, these participants described a shift toward self-directed exploration of digital resources journals, articles, and educational videos accessible at any time.

> P1 characterized this shift as one that *gradually cultivates student independence and curiosity, noting that this freedom "gradually builds students' independence and sparks their curiosity*".

P3 offered a first-hand illustration of this dynamic, recalling how being permitted to use smartphones responsibly during university lectures allowed immediate access to unfamiliar vocabulary and supporting references, which in turn made classroom discussions "more interactive" and gave students greater confidence to contribute. This suggests that unrestricted access to information is valued not only for its convenience, but for its capacity to democratize participation in the learning process.

A third and related dimension concerns personalized and independent learning, wherein technology is seen as accommodating the differing paces and abilities of individual students (Al-sayid et al., 2026). Participant 1 pointed to educational applications capable of adjusting question difficulty to a student's demonstrated level, ensuring that faster learners are not held back while those who need more time still receive appropriately paced guidance. P6 extended this idea by framing technology as a means of fostering learner autonomy more broadly, observing that when students do not understand a lesson, they are able to "search for additional information, watch tutorials, or use online learning platforms to improve their understanding" without needing to wait for direct teacher intervention.

Together, these responses position technology as a mechanism for differentiation one that allows instruction to flex around the learner rather than forcing the learner to adapt to a single, uniform pace. Beyond its benefits for students, participants also recognized technology as a source of practical efficiency for teachers (Tudor & Adam, 2026). P2 and P4 specifically noted that digital tools streamline the demands of lesson preparation and classroom management.

> P2 described how technology "*makes preparing learning materials easier and saves time," while also enabling teachers to assign work online, review student submissions, and communicate more quickly*. P4 offered *concrete examples of this efficiency in practice, citing platforms such as Kahoot for assessing student knowledge and PowerPoint presentations as a more dynamic alternative to the traditional whiteboard.*

These accounts indicate that participants view technology's value as extending beyond the student experience alone, encompassing tangible improvements to teachers' workflow and instructional delivery as well. Despite this broadly positive outlook, a significant counterpoint

emerged across the responses: the recognized risk of distraction. P2, P3, P5, and P6 each tempered their endorsement of technology with caution, warning that its benefits are contingent on responsible use.

> P2 observed plainly that *"some students spend too much time on social media or online games instead of studying,'* while P6 warned that *without proper guidance, "technology may become a distraction instead of learning tool*." P3 reinforced *this concern from a more pedagogical angle, arguing that technology integration "is not simply about using digital devices in the classroom" and that, absent clear structure and rules, it risks undermining rather than supporting learning.*

This recurring caveat suggests that participants' enthusiasm for technology is not unconditional; rather, it is consistently framed as dependent on active teacher guidance and responsible use a qualification that anticipates and reinforces Theme 2's emphasis on the teacher's enduring supervisory and mentoring role (Adeline, 2024).

The Irreplaceable Human Role of Teachers as Guides, Mentors, and Character Educators

Teachers remain indispensable despite the advancement of technology not because of their role in delivering content, but because of functions technology cannot replicate. This indispensability is most vividly expressed through the theme of emotional and relational support.

> P1 argued that *emotional touch and empathy is a fundamental element of education that technology is simply incapable of providing, describing how a teacher can instinctively sense when a student is withdrawn, losing confidence, or facing personal difficulties at home—an intuitive, human form of noticing that no device can replicate.*
> P5 echoed this *sentiment from a slightly different angle, observing that teachers can "fully understand students' feelings, difficulties, or personal needs" in a way technology alone cannot, reinforcing the idea that education is not solely a cognitive transaction but an emotionally attuned relationship between teacher and student.*

Together, these accounts position emotional presence as a form of pedagogical labor that resists automation entirely. Closely tied to this is the theme of critical thinking and information literacy, which was raised by a striking majority of P1, P2, P3, P5, and P6, Across their responses, a shared concern surfaced: that the internet's abundance of information is not matched by its accuracy, and that students therefore require guidance in distinguishing reliable sources from misinformation. This concern prompted several participants to explicitly reframe the teacher's role in the digital era (Sitorus & Tamba, 2026).

> P3 articulated this *reframing most directly, stating that teachers are "no longer the only source of knowledge, but they remain mentors, facilitators, and role models" who guide students in using technology wisely.* P1 offered a similar formulation, *describing the*

teacher's task as teaching students how to filter information and cultivating critical thinking so they are not easily misled by hoaxes or harmful content online.

This reframing reflects a broader shift within the TPACK framework itself, in which the teacher's expertise lies not in possessing exclusive access to content, but in the pedagogical judgment to guide students' engagement with technology and information (Mishra, 2022). Empirical work on TPACK-based active learning similarly positions the teacher as a facilitator whose role is to cultivate students' digital literacy and critical evaluation skills, rather than to serve as the sole transmitter of knowledge (Angraini., et al 2023).

This shared emphasis suggests that participants perceive the teacher's evolving function not as diminished by technology, but as elevated into a more sophisticated form of intellectual guardianship. A third dimension of teacher indispensability concerns character and moral development, identified by P1, P2, P4, and P6 as a domain fundamentally outside technology's reach. These participants collectively argued that education extends beyond academic competence to encompass values, ethics, discipline, and social skills dimensions of human development that cannot be transmitted through a screen.

P4 expressed *this most bluntly, stating that morals are "something technology can't teach," a sentiment that reflects a broader consensus among these participants that character formation depends on lived, interpersonal modeling rather than information delivery*.

This positions the teacher not merely as an instructor of subject matter, but as a moral exemplar whose influence operates through relationship and example rather than content transmission.

Finally, participants pointed to differentiated instruction as another area where the human teacher's responsiveness surpasses what current technology can offer. P2, P3, and P6 each described how teachers adapt their explanations, pacing, and teaching methods to accommodate the differing learning styles and abilities of individual students recognizing, for instance, that some students grasp new material quickly while others require repeated explanation and encouragement before gaining confidence. This capacity to read a classroom and adjust instruction in real time was framed as a form of responsiveness that even sophisticated educational technology or AI cannot fully replicate, since it depends on an accumulated, relational understanding of each student that develops only through sustained human interaction.

Taken together, these four sub-themes reflect a broader redefinition of teacher identity in the digital era: a shift away from the traditional role of knowledge-transmitter toward that of facilitator, curator, and moral guide. This finding resonates with contemporary discourse on twenty-first-century teacher roles, in which the affective and ethical dimensions of teaching are increasingly positioned as technology's clearest and most enduring limitation the aspect of education that no degree of technological sophistication is expected to displace.

Play-Based, Interactive, and Affectively Supportive Strategies for Teaching English to Young Learners

When addressing strategies to increase elementary students' interest in English, all participants converged on child-centered, playful pedagogy rather than formal, textbook-driven instruction, reflecting a shared understanding that young learners respond best when learning is framed as enjoyable rather than academically demanding.

The most frequently cited strategy involved games and physical or interactive activities (Agustina et al., 2026). Participant 1 proposed a particularly structured approach, combining Total Physical Response (TPR) with lighthearted competitive games. P2, P3, P5, and P6 offered variations on this same principle, proposing matching games, guessing games, and role-play activities as ways to keep students physically and mentally active during lessons. The consistency of this recommendation across five of the six participants suggests a shared pedagogical intuition that movement and interactivity are not peripheral to language learning for children, but central to how young learners best acquire and retain new material (Pujiyanti et al., 2026).

Closely aligned with this is the theme of songs and storytelling, cited by nearly all P1, P2, P3, P5, and P6) as an effective means of building vocabulary and pronunciation in a low-pressure, enjoyable format. These participants consistently pointed to children's natural affinity for rhythm, melody, and narrative as a pedagogical resource: songs were seen as helping students internalize vocabulary and pronunciation patterns almost incidentally, while storytelling often supported by props such as hand puppets or oversized picture books, as P1 described was viewed as a way to capture children's imagination while modeling language in meaningful context. This convergence suggests that participants regard music and narrative not merely as engagement tools, but as pedagogically sound vehicles for implicit language acquisition, allowing students to absorb linguistic patterns without the self-consciousness that more formal drilling might provoke.

Visual aids constituted another recurring strategy, mentioned by P1, P2, P3, and P5. Flashcards, picture books, colorful classroom materials, and short videos were repeatedly proposed as tools well-suited to young learners' visual learning preferences, helping to anchor new vocabulary to concrete, memorable images rather than abstract text. This emphasis reflects an implicit recognition among participants that elementary-aged students, who are still developing literacy skills and abstract reasoning, benefit from multisensory input that grounds new language in something they can see and recognize, rather than relying solely on verbal explanation or written text. Within the TPACK framework, this pattern illustrates the technological content knowledge (TCK) dimension, wherein technology is selected not for its novelty but for its capacity to represent specific content here, vocabulary in a form that matches learners' developmental stage (Mishra, 2022) .This aligns with empirical evidence that visual and multimedia tools, such as flashcards and short videos, accelerate vocabulary acquisition and sustain motivation among young learners more effectively than conventional, text-based instruction (Fazliddinova & Erkulova, 2025).

Equally prominent was the theme of positive reinforcement and psychological safety, raised explicitly by P1, P2, P5, and P6. These participants emphasized the importance of praise, small rewards such as stickers or verbal affirmations like "*Good job*!," and a broader

classroom atmosphere in which mistakes are treated as a normal and accepted part of learning rather than something to be feared. Participant 1, for instance, framed such small gestures of appreciation as instrumental in gradually building students' self-confidence, enabling them to speak up and attempt English without anxiety. This recurring emphasis suggests that participants view emotional safety not as a supplementary nicety, but as a precondition for effective language learning in young children without it, students may become too self-conscious to actively practice speaking, regardless of how engaging the surrounding activities are.

A notable departure from this pattern came from P4, who offered a distinctly different angle by proposing entertainment-based and digital motivation as an entry point for English exposure. Rather than focusing on structured classroom games, P4 pointed to popular digital media such as YouTube videos and games like Minecraft as avenues through which elementary students might encounter and engage with English informally, arguing that children's existing enthusiasm for these platforms could be leveraged to sustain motivation for language learning. This response extends the broader "fun learning" theme beyond the confines of the classroom, situating English exposure within informal, media-driven contexts that students already inhabit outside of school.

Collectively, this theme illustrates strong alignment with established principles of Second Language Acquisition for young learners, particularly Krashen's affective filter hypothesis, which holds that low-anxiety, enjoyable learning environments lower psychological barriers and thereby facilitate more effective language acquisition. At the same time, P4's emphasis on gaming and digital entertainment platforms points to an emerging sub-theme worth noting separately: a blurring of formal and informal, digital learning spaces as legitimate contexts for English language exposure a dimension that extends beyond traditional classroom-based strategies and may warrant further exploration in future research.

CONCLUSION

This study explored pre-service English teachers’ perspectives on technology integration, the enduring role of the teacher, and effective strategies for teaching English to elementary students. Findings revealed that these six participants tended to view technology as a facilitative tool that enhances engagement, access to information, and instructional efficiency, provided its use is responsibly guided rather than unsupervised. Despite this, teachers were consistently regarded as indispensable for functions technology cannot replicate emotional support, critical thinking guidance, character development, and differentiated instruction. In addressing young learners specifically, participants converged on child-centered, playful strategies such as games, songs, storytelling, and visual aids, underscored by an emphasis on positive reinforcement and psychological safety, consistent with Krashen's affective filter hypothesis. Overall, these findings suggest that pre-service teachers view technology and the human teacher as complementary rather than competing forces, with implications for English teacher education programs to balance digital competence with relational and pedagogical skills. Given the limited sample size, future research involving larger, more diverse populations and classroom-based observation is recommended to further validate these findings.

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