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Developing a Technology-Enhanced Programmed Instruction Model for English Reading Teaching

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ABSTRACT

The primary objective of this study is to develop a Technology-Enhanced Programmed Instruction (TEPI) Model tailored specifically for English reading teaching. Over the past few decades, the concept of "Technology-Enhanced Programmed Instruction" has gained widespread traction as a framework for effective teaching across diverse educational contexts. However, its broad and inconsistent usage across disciplines has led to conceptual ambiguity, necessitating a systematic synthesis of existing perspectives. This paper first provides a comprehensive overview of scholarly viewpoints on technology-enhanced programmed instruction in English reading teaching, integrating insights from instructional design, cognitive psychology, and second language acquisition. Second, it evaluates key theoretical frameworks in teaching methodology and English language teaching (ELT) to inform model development. Through literature synthesis and expert validation, the study concludes that the proposed TEPI Model is a viable instructional framework for ELT practitioners, with its identified stages uniquely suited to fostering reading comprehension skills.

1. Introduction

In an era marked by rapid technological advancement and globalization, English has solidified its role as the world's primary lingua franca, making English language teaching (ELT) more critical than ever for fostering academic, professional, and interpersonal success (Marlina & Xu, 2018). Among the core competencies in ELT, reading comprehension stands out as a foundational skill—one that underpins all other language abilities, including writing, speaking, and listening (Tengo et al., 2023). It is through reading that learners access academic content, engage with global perspectives, build vocabulary, and develop critical thinking skills necessary for navigating an information-saturated world (Madolimovich, 2022; Silalahi, 2023). For English as a Foreign Language (EFL) and English as a Second Language (ESL) learners, in particular, proficient reading comprehension is not merely a language goal but a gateway to educational equity, cultural competence, and lifelong learning (Lindawati, 2022).

To address the evolving needs of 21st-century learners, ELT has increasingly integrated digital tools—such as adaptive learning platforms, interactive reading software, online collaborative tools, and multimedia resources—into reading instruction (Reiser et al., 2025). Proponents of technology-enhanced ELT argue that these tools can enhance engagement, personalize learning experiences, and provide immediate feedback, all of which are critical for supporting diverse learner needs and improving reading outcomes (Heinich, 2004). However, despite the proliferation of digital technologies in education and the growing body of research highlighting their potential, many ELT practitioners continue to struggle with effectively integrating these tools into reading instruction. A common challenge is the lack of structured, theory-driven frameworks to guide technology integration, leading to inconsistent practices, superficial use of digital tools (e.g., using technology merely as a content delivery medium rather than a pedagogical enabler), and ultimately, suboptimal reading comprehension outcomes (Reiser et al., 2025; Shrock, 2011).

This gap between technological potential and pedagogical practice is particularly pronounced in programmed instruction—a learner-centered pedagogical approach rooted in behavioral and cognitive learning theories that has long been recognized for its ability to structure instruction in a sequential, scaffolded manner (Skinner, 2012). Developed in the mid-20th century, programmed instruction emphasizes core principles such as presenting content in incremental small steps, requiring active learner responses, providing immediate feedback, and allowing self-paced progression—all of which are highly compatible with modern digital learning tools (Heinich, 2004). Yet, while programmed instruction has a strong theoretical foundation, its application in contemporary technology-enhanced ELT contexts remains fragmented, with few studies synthesizing its principles with other evidence-based frameworks to create a comprehensive model for reading instruction.

Furthermore, existing research on technology-enhanced reading instruction in ELT often focuses on individual tools or strategies in isolation, rather than integrating multiple theoretical perspectives to address the complex, multifaceted nature of reading comprehension (Joyce et al., 2015). For example, some studies explore the use of adaptive feedback tools without linking them to cognitive frameworks for skill progression, while others focus on reading strategies without considering how technology can enhance their implementation. This fragmentation has led to a lack of cohesive guidance for ELT practitioners, who need structured models that balance technological functionality with sound pedagogical principles to support learners at all proficiency levels.

Against this backdrop, the present study seeks to address these critical gaps by undertaking a systematic review and comparative analysis of existing research on technology-enhanced programmed instruction in ELT reading contexts. The primary aim of this review is to identify key disparities, unaddressed gaps, and promising practices across scholarly works, with a focus on how programmed instruction principles have been integrated with digital tools and other instructional frameworks. Drawing on insights from divergent findings, overlooked research areas, and expert feedback, the study develops a novel Technology-Enhanced Programmed Instruction (TEPI) Model tailored specifically for English reading teaching. This model integrates evidence-based instructional design principles (from programmed instruction and Gagné's framework), cognitive learning theories (from Bloom's Taxonomy and Vygotsky's Zone of Proximal Development), and effective reading strategies (the PQRST

technique) to deliver targeted, personalized support for reading comprehension in diverse ELT contexts.

The significance of this study lies in its contribution to bridging the gap between research and practice in technology-enhanced ELT. By synthesizing multiple theoretical frameworks into a single, practical model, the TEPI Model provides ELT practitioners with a structured roadmap for integrating digital tools into reading instruction in a purposeful, effective manner. Additionally, the model addresses the need for learner-centered instruction that supports hierarchical skill development, from basic recall to higher-order critical thinking, ensuring that learners not only develop reading proficiency but also the cognitive skills necessary for academic and lifelong success. Ultimately, this study aims to enhance reading comprehension outcomes for EFL/ESL learners by providing a theoretically grounded, practically feasible framework that leverages the potential of technology while upholding sound pedagogical principles.

2. Review of Related Literature

2.1. Technology-Enhanced Programmed Instruction

The programmed instruction movement, active from the mid-1950s to the mid-1960s, emerged as a pivotal contributor to the evolution of the systems approach to education (Heinich, 2004). Its theoretical foundation was laid by B.F. Skinner's (2012) seminal work The Science of Learning and the Art of Teaching, which articulated core principles for optimizing human learning: presenting content in incremental small steps, requiring active learner responses to formative questions, providing immediate feedback on responses, and allowing self-paced progression. A central assumption of this framework is that scaffolded, step-by-step learning supports near-constant correct responses, enabling positive reinforcement through timely feedback—a key motivational element for engaging English reading instruction.

Heinich (2004) further contextualized programmed instruction's legacy by highlighting its role in pioneering the systems approach to education. By breaking content into explicit behavioral objectives, designing sequential instructional steps, piloting and refining procedures, and validating programs against predefined goals, programmed instruction created a compact, effective self-instructional system that remains foundational for technology-enhanced models.

Technological progress over the past four decades has reshaped instructional design practices, laying the groundwork for the TEPI Model. In the 1980s, the widespread accessibility of personal computers shifted focus toward computer-based instruction, prompting educators to adapt programmed instruction principles to leverage interactivity, active engagement, and automated feedback (Dick, 1997; Shrock, 2011). Computers also streamlined the development of structured materials, enabling efficient creation of resources tailored to English reading (Reiser et al., 2025).

The 21st century brought further transformation with the adoption of the Internet as a versatile instructional tool. Beyond content delivery, the Internet enables learners to access

diverse reading materials, collaborate with peers, and create knowledge artifacts—deepening comprehension and skill application (Reiser et al., 2025; Schwen et al., 1998). The 2020 global pandemic and universal shift to online learning underscored the need for intentional, structured design for digital instruction, reinforcing the relevance of models like TEPI. Critical to this evolution is the principle that technology must be integrated with rigorous instructional planning—functioning as a purposeful enabler of reading skill development, not merely a delivery medium (Reiser et al., 2025).

2.2. Bloom's Taxonomy of Cognitive Domains

Designing effective programmed instruction requires clearly defined learner objectives—a principle advanced by Bloom et al. (1956). This influential work expanded objective-setting by identifying three key tenets: the cognitive domain encompasses diverse learning outcomes, objectives can be categorized by learner behaviors, and outcomes form a hierarchical structure. Bloom's Taxonomy is foundational to the TEPI Model, as its hierarchical structure—where each level depends on the mastery of skills from lower levels—guides the sequential design of reading tasks that build from basic to higher-order thinking (Engelhart et al., 1956).

The foundational level of knowledge involves remembering or recalling information, such as retrieving key terms from a reading text. For English reading, this translates to storing and retrieving textual information, mirroring behaviors fostered during initial learning. Beyond knowledge acquisition, comprehension stands as the most widely emphasized skill in K-12 and higher education, requiring students to interpret communications by grasping intended meaning. Learners demonstrate understanding by rephrasing content or making simple extensions beyond explicit information (Engelhart et al., 1956).

Application, the next level, builds on comprehension by requiring learners to use knowledge, theories, or principles to solve problems. Educators often note that true comprehension is demonstrated through application, making this level critical for preparing learners to transfer reading skills to real-world contexts (Engelhart et al., 1956). The significance of application objectives is underscored by the fact that most learning is intended for practical use, and the effectiveness of reading instruction often hinges on students' ability to transfer skills to unfamiliar situations.

Analysis represents a more advanced cognitive level than comprehension and application, involving breaking down content into components, identifying relationships between them, and understanding organizational structure. For reading, this includes examining textual techniques or argumentative structures to deepen comprehension. Though analysis can be an end in itself, it is more educationally valuable when positioned as a tool to enhance comprehension or as a precursor to evaluating text quality. Synthesis, the next hierarchical level, refers to combining elements to form a new, integrated whole—a process that involves reorganizing existing knowledge and new material into a coherent structure not previously evident. This level fosters creative engagement with texts, as students integrate reading comprehension with prior knowledge to construct original interpretations, arguments, or summaries (Engelhart et al., 1956).

Evaluation, the highest level of the cognitive taxonomy, involves making judgments about the value of ideas, works, or materials based on predefined or self-determined criteria. These

judgments may be quantitative or qualitative, assessing factors such as accuracy, effectiveness, or satisfaction. Evaluation is placed at the top of the taxonomy because it integrates all lower-level cognitive behaviors while adding a critical focus on value and criteria. This level bridges cognitive and affective domains, as judgments often reflect personal values and engagement—making it a pivotal component of the TEPI Model's goal to develop well-rounded English reading skills (Engelhart et al., 1956).

In line with this hierarchical structure, students must be provided with reading comprehension questions that target higher-order thinking levels to enhance their overall comprehension of reading texts. Furthermore, the quality of reading comprehension outcomes can be observed through the extent to which students construct, organize, and integrate new information into their existing prior knowledge and experiences as an internal mental process (Muharina Bayazid, 2024).

As a structured and empirically supported framework, Bloom's taxonomy supports the design of English lessons with clear learning objectives. It enables teachers to formulate targeted questions that assess learners' comprehension across the full spectrum of cognitive processing—from lower-order to higher-order thinking skills. Additionally, it helps teachers identify the integrative relationship between content and the cognitive dimensions of learning objectives. By offering a systematic foundation for planning diverse learning activities and instructional strategies, this taxonomy effectively fosters critical reading among students (Muharina Bayazid, 2024).

2.3. Gagne's Nine Events of Instruction

Robert Gagné's instructional design framework is a cornerstone of modern pedagogy, developed to identify instructional events that facilitate effective learning for adult learners through well-designed instruction (Gagné, 1985). As an applicable tool for English reading teaching, this framework fosters a more engaging classroom environment and comprises nine sequential events that shape students' engagement with learning materials and their achievement of learning objectives. At its core, the framework operates on the premise that effective learning entails a series of structured events, beginning with capturing students' attention to pique their awareness of and interest in the material, followed by stages that facilitate the transfer of concepts from short-term to long-term memory—ultimately enabling students to apply acquired knowledge in new situations.

Building on this premise, Gagné outlined nine sequential instructional events essential for supporting all types of learning outcomes, specifying which events are critical for different outcome categories and identifying scenarios where events can be omitted (Gagné, 1985); collectively, these events also provide a structured blueprint for integrating technology into English reading instruction. The events proceed systematically: gaining learners' attention via a hook or pre-instruction activity, informing them of learning objectives to mentally prepare them, stimulating recall of prior knowledge to connect new and existing information, presenting new learning content, providing learning guidance with meaningful resources, eliciting performance through practice, delivering feedback to support improvement, assessing performance to evaluate mastery, and finally enhancing retention and transfer through tasks that encourage application in diverse contexts (Gagné, 1985; Yulinda et al., 2024).

Notably, Gagné's Nine Events of Instruction are not only systematic but also easy to integrate into teaching and learning processes, making it a valuable tool for designing effective lesson plans (Rafiqah et al., 2023). Its logically ordered procedures boost learners' confidence in completing steps and achieving desired outcomes, and the theory's adaptability allows it to be tailored to diverse learning contexts, including English reading instruction (Yulinda et al., 2024). This combination of structure, practicality, and flexibility reinforces the framework's relevance as a cornerstone of modern pedagogy, aligning with its core goal of facilitating effective, transferable learning.

2.4. Vygotsky's Zone of Proximal Development

Vygotsky's (1978) Zone of Proximal Development (ZPD) redefines effective learning by centering on growth potential through scaffolded support, rather than solely on independent capabilities. He defines the ZPD as "the distance between the actual development level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers." This definition highlights two distinct levels of development: the actual level and the potential level. The actual level of development refers to tasks learners can complete independently, also known as achieved development; it represents matured mental functions and offers a retrospective view of what learners have already mastered. In contrast, the potential level—often described as the active learning zone—is where most cognitive development occurs, as it is forward-looking and encompasses tasks learners cannot yet complete alone but can achieve with support from more knowledgeable peers or adults (Machimana & Genis, 2025). In essence, the ZPD explains the space between a learner's independent problem-solving capacity and their capacity to complete the same task with assistance from a more competent other, such as a teacher (Dludla et al., 2024).

Building on this theoretical foundation, the ZPD's core insight translates directly to the design of the Technology-Enhanced Programmed Instruction (TEPI) Model for English reading teaching. Specifically, the model integrates technology-enhanced scaffolding—including adaptive feedback, guided questions, and collaborative digital tools—that mirrors the support of a skilled teacher. By strategically stretching learners' reading abilities within their ZPD, the TEPI Model fosters gradual progression toward independent reading proficiency, a central goal of ELT reading instruction (Vygotsky, 1978). This alignment ensures the model does not merely deliver content but actively supports learners in moving beyond their current capabilities, leveraging technology to provide targeted, context-appropriate scaffolding that aligns with the ZPD's emphasis on growth through guided support.

2.5. PQRST Reading Strategy

Reading is a complex cognitive activity involving active meaning construction, requiring learners to draw on prior knowledge, context, and critical thinking (Madolimovich, 2022; Silalahi, 2023). In EFL contexts, reading autonomy—rooted in proficiency, motivation, and content understanding—is pivotal for advancing skills (Lindawati, 2022). Two complementary approaches support this: intensive reading, which involves detailed analysis of short texts to build vocabulary, grammar, and textual structure awareness, and extensive reading, which centers on engaging with longer, accessible texts for fluency and enjoyment (Andrés, 2020; Ker-hsin & Razali, 2023). Together, these approaches create a balanced

framework for developing both analytical precision and fluent comprehension in EFL reading instruction.

A range of targeted strategies can further enhance reading ability, with Brown (2007) outlining ten key practices that support active interaction between readers and texts, with comprehension as the ultimate goal. Among structured instructional strategies for boosting reading comprehension, the PQRST technique—an acronym for Preview, Question, Read, Summarize, Test—has emerged as a well-established, evidence-based tool. This method guides systematic engagement with text by breaking the reading process into distinct, sequential steps (Westwood, 2004).

Westwood (2004) details the implementation of the PQRST technique: educators first introduce the method and its benefits to motivate student engagement, then guide students through previewing—skimming texts to identify headings, key terms, and structural elements for an overview. Next, students generate targeted queries from previewed material to focus reading attention, followed by deep engagement with texts to answer formulated questions, rereading complex sections as needed. Summarizing requires articulating key points in one's own words to reinforce understanding and identify knowledge gaps, while testing involves reviewing material without notes to evaluate comprehension and connect new content to prior knowledge for long-term retention.

Research confirms the PQRST strategy's effectiveness: it promotes critical engagement with texts, enhances information retention and analytical thinking, and significantly improves students' ability to interpret complex texts (Parameswari et al., 2021; Putra & Reflinda, 2021; Tengo et al., 2023). Additional benefits include activating prior knowledge to connect new information with existing understanding, encouraging active reflection through question formulation, fostering an inquiring attitude toward reading, deepening comprehension beyond surface-level engagement, promoting self-evaluation and metacognitive awareness via self-testing, supporting learning autonomy by equipping students with a portable, independent strategy, and ultimately enhancing academic performance through integrated comprehension, engagement, and assessment practices (Blanco Vázquez et al., 2006).

3. Development of the Teaching Model

3.1. Theoretical Integration

The TEPI Model was developed through a systematic synthesis of five core theoretical frameworks identified in the literature review. Technology-Enhanced Programmed Instruction provides principles of incremental steps, active response, immediate feedback, and self-pacing, while Bloom's Taxonomy of Cognitive Domains guides sequential task design from basic to higher-order thinking. Gagné's Nine Events of Instruction structures instructional flow to optimize learning outcomes, Vygotsky's Zone of Proximal Development informs scaffolding strategies to support growth, and the PQRST Reading Strategy delivers a systematic process for engaging with texts. These frameworks were integrated to create a student-centered model that balances structure from programmed instruction and instructional design theories with flexibility from cognitive and constructivist theories—essential for adapting to diverse learner needs in ELT contexts (Joyce et al., 2015).

3.2. Expert Validation

To ensure the model's appropriateness for ELT reading instruction, expert validation was conducted. Evaluation forms, accompanied by detailed descriptions of the model, were distributed to five experts specializing in educational test and measurement, educational technology, English, and ELT. The form included a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree) to rate components such as clarity, feasibility, and alignment with ELT needs, as well as open-ended questions to capture qualitative insights, opinions, and recommendations for improvement.

Descriptive statistics (means and standard deviations) were used to analyze quantitative data, with predefined criteria: a mean score of 1.00–2.00 indicated the model was "less appropriate," 2.01–3.01 signified "appropriate," and 3.02–4.00 denoted "most appropriate." The findings revealed that all item mean scores exceeded 3.02 (M = 3.58, SD = 0.32), indicating expert consensus that the model is "most appropriate" for ELT reading comprehension instruction. Qualitative feedback was used to refine scaffolding strategies and digital tool recommendations, ensuring the model's practical viability in real classroom settings. Collectively, a preliminary Technology-Enhanced Programmed Instruction (TEPI) Model designed specifically for English reading instruction is proposed, and its visual depiction is presented in Fig. 1.

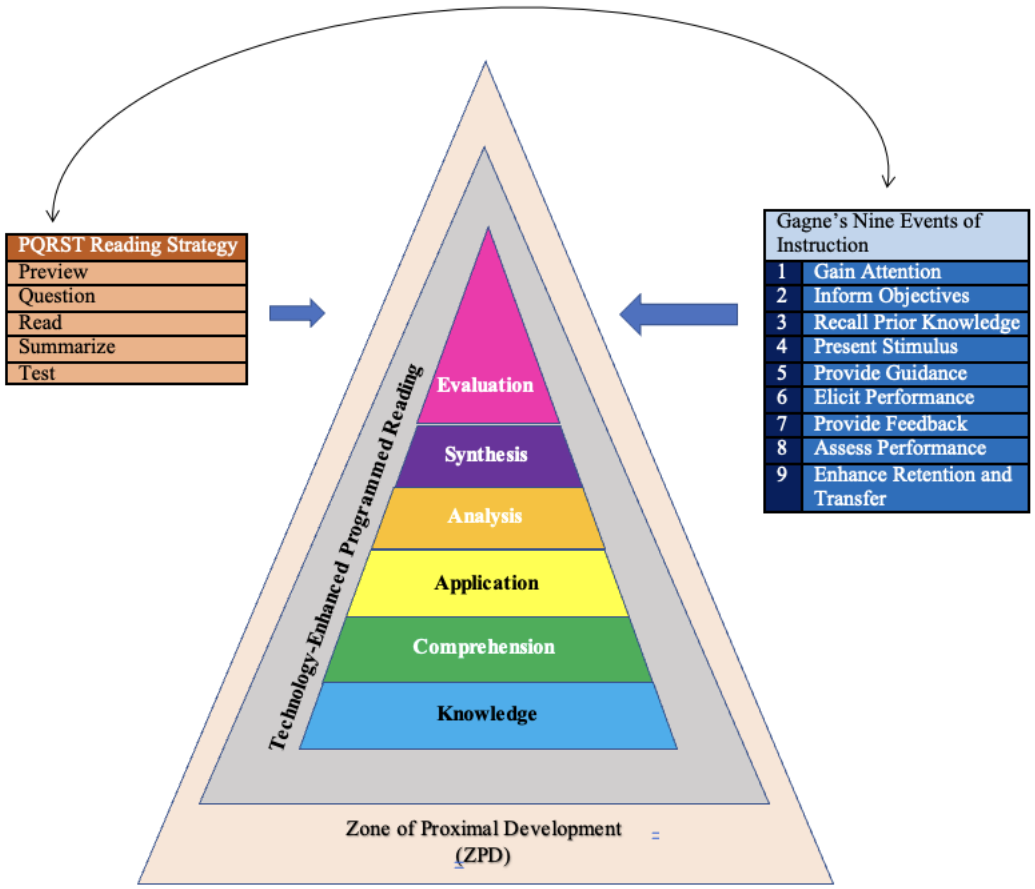

Figure 1. Technology-Enhanced Programmed Instruction (TEPI) Model for English Reading Teaching

4. Discussion

The TEPI Model addresses a critical gap in ELT: the lack of structured frameworks for integrating technology into reading instruction. By synthesizing five evidence-based theoretical frameworks, the model offers a balanced approach that is both theoretically grounded and practically feasible—addressing a longstanding challenge highlighted in prior research where technology integration in ELT reading often lacks intentional pedagogical alignment (Reiser et al., 2025; Shrock, 2011). A key strength of the TEPI Model is its student-centered design, which prioritizes active engagement, self-pacing, and personalized feedback—aligning with modern ELT principles that emphasize learner autonomy and individual difference (Joyce et al., 2015).

Unlike fragmented approaches that focus solely on digital tools or isolated reading strategies, the TEPI Model embeds technology within a cohesive pedagogical structure, ensuring that digital resources serve as enablers of learning rather than superficial add-ons. This aligns with Heinich's (2004) assertion that effective technology integration in programmed instruction requires tight alignment between technological functionality and instructional principles.

Another strength lies in its hierarchical skill development, as Bloom's Taxonomy ensures tasks progress from basic recall to higher-order analysis and evaluation, supporting comprehensive reading skill growth. This sequential progression is particularly valuable for EFL/ESL learners, who often struggle with moving beyond surface-level comprehension to critical engagement with texts (Madolimovich, 2022; Silalahi, 2023). By linking reading tasks to specific cognitive levels, the TEPI Model provides clarity for both teachers and learners: teachers can design targeted instruction that builds incrementally, while learners gain a clear understanding of their progress and areas for growth. This aligns with the core tenets of Bloom et al. (1956) and Engelhart et al. (1956), who emphasized the importance of hierarchical cognitive development in fostering deep comprehension—an element that is often missing from unstructured technology-enhanced reading instruction.

Flexible scaffolding, informed by Vygotsky's ZPD and programmed instruction principles, enables the model to adapt to diverse proficiency levels, making it suitable for EFL/ESL contexts with varied learner needs. Technology-enhanced scaffolding, such as adaptive feedback and guided questions, mirrors the support of a skilled teacher while allowing for self-paced learning—addressing the challenge of individualized instruction in large ELT classrooms. This scaffolding approach not only supports learners within their ZPD but also fosters gradual independence, aligning with Vygotsky's (1978) goal of moving learners toward autonomous proficiency.

Additionally, the integration of the PQRST Reading Strategy within the TEPI Model provides a systematic process for engaging with texts, reinforcing active reading and metacognitive awareness—key components of effective reading comprehension identified in prior research (Parameswari et al., 2021; Putra & Reflinda, 2021; Westwood, 2004). By embedding this strategy within a technology-enhanced framework, the TEPI Model makes evidence-based reading practices more accessible and engaging for 21st-century learners.

A critical component in the development of the TEPI Model is its intentional alignment with Gagné's Nine Events of Instruction, a cornerstone of modern pedagogy designed to facilitate

effective learning through structured instructional events (Gagné, 1985). This alignment ensures the TEPI Model embodies a structured instructional flow optimized for ELT reading outcomes, as it integrates all nine of Gagné's sequential events with programmed instruction principles and digital tools—operationalizing each event specifically for English reading contexts. For instance, the model uses interactive digital hooks to gain learner attention, reinforces reading-specific learning objectives, stimulates prior reading knowledge, and incorporates technology-enhanced guidance, practice, feedback, assessment, and transfer tasks (Gagné, 1985; Yulinda et al., 2024).

Expert validation confirmed the model's coherence, appropriateness, and feasibility for ELT settings, with all participating experts endorsing its alignment with reading comprehension instructional needs. The high mean score ($M = 3.58$, $SD = 0.32$) indicates strong consensus that the model is practical and relevant for real classroom use, while qualitative feedback helped refine scaffolding strategies and digital tool recommendations—ensuring that the model is not only theoretically sound but also practically viable. This validation is critical, as theoretical frameworks in ELT often fail to translate to classroom practice due to a lack of practitioner input (Reiser et al., 2025).

It is important to note that this study represents a preliminary assessment of the TEPI Model's appropriateness, rather than a full evaluation of its effectiveness. As such, future research should include experimental studies in real classroom contexts to measure the model's impact on reading comprehension outcomes—for example, comparing TEPI-implemented classes with traditional instruction or other technology-enhanced approaches. Such studies could also explore the model's impact on specific learner outcomes, such as higher-order thinking skills, metacognitive awareness, and reading motivation—areas that are critical for comprehensive reading proficiency. Additionally, exploring adaptations for specific learner populations, such as beginner EFL learners, learners with reading difficulties, or adult learners, would enhance the model's versatility and broader applicability in diverse ELT settings. Future research could also investigate the role of specific digital tools within the TEPI Model, identifying which tools are most effective for supporting different cognitive levels and instructional events.

Limitations of the present study should also be acknowledged. First, the expert validation involved a small sample of five experts, which may limit the generalizability of the findings. Future research could expand the validation process to include a larger and more diverse group of experts, including ELT practitioners from different contexts (e.g., primary, secondary, tertiary education) and regions. Second, the model's development was based on a systematic review of existing research, which may have omitted emerging studies or regional contexts that could inform further refinements. Third, the study did not include a pilot implementation of the model, which would provide additional insights into its practical challenges and strengths in real classroom settings.

Despite these limitations, the TEPI Model makes a valuable contribution to the field of technology-enhanced English reading teaching by bridging the gap between research and practice. By prioritizing active engagement, hierarchical skill development, flexible scaffolding, and intentional digital tool use, the model offers a roadmap for ELT practitioners seeking to enhance reading comprehension outcomes in technology-rich environments.

5. Conclusion

This study developed the Technology-Enhanced Programmed Instruction (TEPI) Model for English reading teaching through a systematic literature review and expert validation. The model integrates core principles from technology-enhanced programmed instruction, Bloom's Taxonomy of Cognitive Domains, Gagné's Nine Events of Instruction, Vygotsky's Zone of Proximal Development, and the PQRST Reading Strategy to create a structured, student-centered framework for ELT practitioners. Expert feedback confirmed the model's appropriateness for fostering reading comprehension, with its sequential stages and purposeful technological integration addressing key challenges in digital ELT.

The TEPI Model contributes to the field by providing a practical, theory-driven tool for integrating technology into reading instruction—bridging the gap between research and practice. By prioritizing active engagement, hierarchical skill development, flexible scaffolding, and intentional digital tool use, the model offers a roadmap for ELT practitioners seeking to enhance reading comprehension outcomes in technology-rich environments. Future experimental research will further validate its effectiveness, enabling refinements to better support diverse learner needs. As technology continues to reshape education, frameworks like TEPI are critical for ensuring digital tools enhance, rather than distract from, meaningful learning outcomes in English reading.

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