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A Theory-Informed Framework for Selecting AI Tools in Language Teaching

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Abstract

The revolutionary progress of Artificial Intelligence (AI) is redefining educational technology, enabling innovative approaches to education. However, the absence of a theory-informed support for selecting AI tools has raised concerns about instructional consistency and quality in language teaching. To address this gap, this study proposes an AI Tool Selection (ATS) Framework to guide educators in choosing AI tools for effective language teaching. To ensure theoretical rigor, the proposed framework synthesizes insights from nine established theories across three interrelated components: Pedagogical Alignment, informed by CLT, CALL, and SLA; Technological Integration, drawing on SAMR, TPACK, and HCI; and Adoption and Usability, grounded in TAM, Sociocultural Theory and DOI. Each component is defined by three clear indicators and guiding questions that prompt informed, context-sensitive decisions in AI tool selection. Overall, the conceived ATS Framework advances AI tool selection in language teaching by offering operational practicality, theoretical depth, and ethical-contextual sensitivity, ensuring that decisions are actionable, conceptually grounded, and culturally responsible. Future research should empirically validate and refine the framework across diverse educational and cultural contexts.

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Introduction

The rapid advancement of information technologies has ushered in a new era of possibilities across various sectors, with education being a notable domain of impact. Among these innovations, AI has emerged as a transformative force, driving profound and multi-level societal changes that redefine human capabilities and the structure of global progress (Gruetzemacher & Whittlestone, 2022). The proliferation of AI tools such as ChatGPT, DALL·E, and Midjourney marks a significant shift in how technology can be leveraged to support teaching and learning (Ojanperä, 2024; Khan, 2024). Unlike earlier digital tools focused on automation and content delivery, current AI technologies are increasingly oriented toward supporting interactive, creative, and learner-centered experiences (Nikolopoulou, 2024). Within the specific domain of language teaching, AI presents substantial opportunities for pedagogical innovation. Recent research has highlighted AI's potential to enable personalized and interactive learning, provide real-time feedback, and strengthen students' collaboration skills and active engagement (Hu & Chan, 2025). In addition, AI tools have proven effective in reducing pre-service teachers' public speaking anxiety and enhancing their speaking competence, offering an innovative solution for addressing anxiety in teacher education (Karagöl et al., 2025).

Furthermore, AI tools serve as key drivers in language education, addressing traditional instructional challenges, enhancing pedagogical precision, and supporting comprehensive teaching, thereby underscoring the importance of intelligent technological support in language teaching (Ba et al., 2025). In this context, AI tools offer not only access to rich language input but also adaptive feedback, affective scaffolding, and immersive environments that align with diverse instructional objectives. However, despite the pedagogical potential of AI, language teachers often struggle with tool overload and the absence of unified evaluation criteria (Du & Gao, 2022; Alzubi et al., 2025). This situation makes it difficult to determine which tools are instructionally meaningful, technically feasible, and culturally appropriate, especially amid growing concerns about data privacy, bias, and contextual relevance (Martin & Zimmermann, 2024). Thus, faced with tool overload, technical uncertainty, and ethical ambiguity, many teachers lack clear criteria for selecting effective and responsible AI tools (Alwaqdani 2024; Madanchian & Taherdoost 2025). As a result, this problem impedes informed decision-making and underscores the urgent need for a practical framework to support balanced and context-sensitive AI integration (Chawla & Bisla, 2025; Xue et al., 2024). Although some theories from language pedagogy, educational technology, and user interaction offer valuable insights, they are often discussed in isolation and rarely translated into actionable strategies for tool evaluation. Most existing research provides either conceptual overviews or technical evaluations without considering how these diverse perspectives can be synthesized into practical decision-making tools for teachers. This fragmentation results in a theory–practice gap: teachers may be aware of pedagogical principles like communicative competence or technological frameworks, but they lack a unified and operational means to apply these concepts when choosing AI tools (Ortega-Bolaños et al., 2024). Consequently, in the absence of structured criteria, educators tend to make intuitive or improvised decisions, which may compromise instructional consistency and weaken pedagogical accountability.

To address this critical gap, this study explores this research question: How to conceptualize a framework for selecting AI tools that support effective language teaching? In response, the proposed framework draws on a

multi-theoretical foundation structured around interrelated components and supported by clear indicators. These components collectively offer insights into how AI tools can be accepted by individuals, integrated within specific educational contexts, and adopted at a systemic level. This framework combines theoretical and practical significance and contributes to the academic discourse by synthesizing cross-disciplinary theories into a unified model, and it empowers educators with a structured decision-making tool for real-world instructional needs. The theoretical underpinnings of this framework will be further elaborated in the following section. By integrating pedagogical, technological, and adoption-oriented perspectives, this study proposes a comprehensive selection framework that aims to support more informed, context-sensitive, and ethically grounded AI adoption in language teaching.

Theoretical Underpinning

To ensure that AI tools selected for language teaching are pedagogically sound, contextually appropriate, and ethically responsible, this study draws on a multi-theoretical foundation. The goal is not to test each theory, but to refer to specific elements from well-established theories in language teaching to guide AI tool selection. Each theory offers insights into specific aspects of AI-supported instruction, such as communication quality, feedback design and ethical considerations. These theoretical insights are operationalized into guiding prompts that support educators in evaluating whether a given tool aligns with sound pedagogical and contextual criteria. In this way, the framework enables educators to make pedagogically sound and context-sensitive decisions before integrating AI tools into practical instruction.

CLT

Communicative Language Teaching (CLT) emphasizes real-life communication, fluency, and meaningful interaction over decontextualized grammar instruction (Canale & Swain, 1980). Consistent with these priorities, both teachers and students report that AI tools improve the organization and content quality of writing, enabling learners to structure their thoughts more clearly and communicate more effectively (Malik et al., 2023). Research further suggests that such tools help learners express ideas coherently and in context, especially in instructional settings, thereby reinforcing CLT-oriented practices. Previous work has also called for clearer pedagogical criteria to assess whether digital tools genuinely support communicative competence (Liu et al. 2024). Therefore, this study draws on CLT to foreground how tools enable purposeful language use, which is directly reflected in the tool selection through instructional goal relevance: examining whether a tool helps learners engage in tasks that mirror real-world communicative contexts. Although CLT informs the central pedagogical perspective of this study, a flexible stance is maintained to accommodate diverse instructional practices that align with explicit and goal-oriented uses of technology in language teaching.

CALL

Computer-Assisted Language Learning (CALL) provides a framework for integrating technology into language instruction, emphasizing interactivity, learner autonomy, and the pedagogical potential of digital tools (Bax,

2003). It highlights that technology should enhance communicative competence through purposeful integration rather than isolated use. Recent research underscores that AI-assisted language learning tools should transcend a narrow focus on linguistic accuracy to support authentic communicative competence and contextually meaningful language use (Zhou et al., 2025; Yeh, 2025). Building on this consensus, the deep integration of technology and pedagogy is essential to enhance language learning outcomes. In this study, CALL theory provides the foundation for designing reflective prompts that help educators evaluate whether AI feedback mechanisms not only address correctness but also verify if AI-generated content aligns with practical communicative use. This approach ensures that selected tools are in line with meaningful and contextually appropriate language applications.

SLA

Second Language Acquisition (SLA) theory highlights that effective language acquisition depends on exposure to comprehensible input that is slightly above the learner's current level and is influenced by affective factors (Krashen, 1982). Recent research indicates that AI tools designed for language learning are more effective when they receive meaningful input and are in a positive emotional state (Yang et al., 2025; Zong & Yang, 2025), which aligns with the core principles of SLA. Drawing on this theoretical foundation, the present study incorporates SLA to inform AI tool selection, particularly in relation to feedback interactivity. The framework supports educators in evaluating whether AI tools provide feedback that promotes meaningful language development and contributes to instructional effectiveness.

SAMR

SAMR categorizes technology use into four levels—Substitution, Augmentation, Modification, and Redefinition—to distinguish superficial from transformative use (Puentedura, 2006). Research has increasingly shown that the real value of AI tools in education lies in their potential to transform, rather than merely replicate, traditional instructional practices (Labadze et al., 2023). This emphasizes the value of identifying AI tools that go beyond traditional methods to support transformative learning. Rather than applying the model as an outcome measure, it is used conceptually to prompt educators to reflect on whether a tool merely replicates existing practices or enables new forms of instruction, thus supporting more strategic and forward-looking adoption decisions.

TPACK

TPACK combines Technological, Pedagogical, and Content Knowledge to define the essential expertise required for effective technology integration in education (Mishra & Koehler, 2006). It highlights the dynamic interaction among subject knowledge, appropriate instructional strategies, and the use of relevant technologies to design meaningful learning experiences. Currently, AI tools face the challenge of better adapting to diverse user needs and instructional contexts (Karataş et al., 2025; Strielkowski et al., 2025). Without such adaptability, these tools risk becoming rigid and pedagogically ineffective, failing to accommodate the varied requirements of both learners and teaching environments.

Against this backdrop, the TPACK framework offers a valuable conceptual lens for evaluating whether AI tools support the flexible integration of diverse teaching modalities and the accommodation of individual learner differences. By incorporating reflection prompts informed by TPACK, educators can make more informed decisions about selecting and adapting AI tools to enhance personalized, multimodal teaching and learning. By incorporating prompts grounded in TPACK, educators can make more informed decisions about selecting appropriate AI tools to support effective language teaching.

HCI

Human-Computer Interaction (HCI) explores how users interact with digital systems, with an emphasis on usability, adaptability, and user-centered design (Dix, 2009). Digital interaction is highly effective in stimulating active learning, supporting individualized instruction, and enhancing students' academic performance and engagement (Li & Wu, 2025). In educational contexts, HCI is applied to the development of responsive technologies that cater to diverse learner characteristics, such as age, language proficiency, and cultural background. However, many current AI applications still lack sufficient adaptability across these dimensions. Drawing on HCI, this study emphasizes adaptability as a key dimension in evaluating AI tools. It encourages educators to reflect on whether the selected tools accommodate diverse learner needs and provide usable, context-sensitive feedback.

TAM

The Technology Acceptance Model (TAM) identifies perceived usefulness and perceived ease of use as critical components of users' behavioral intentions toward technology (Venkatesh & Bala, 2008). In the context of AI tool integration, teachers frequently express frustration with tools that are difficult to navigate or fail to demonstrate clear instructional value (Alwaqdani 2024; Chhabra et al. 2025). Applying TAM during the tool selection process enables educators to critically evaluate whether an AI tool is both pedagogically valuable and accessible for themselves and their students. Recent studies further suggest that users' perceptions are shaped by their cultural and digital backgrounds, highlighting the importance of reflective, context-sensitive adoption. In this study, TAM serves as a guiding lens to help educators assess whether the tools they consider are likely to be perceived as ease of use, thereby promoting more informed, user-friendly decisions across varied language teaching.

Sociocultural Theory

Vygotsky (1978) articulated Sociocultural Theory by emphasizing that higher mental functions develop through social interaction and the use of cultural tools such as language and symbols within specific cultural contexts. In practice, teachers tend to express concern about the cultural and ethical compatibility of AI tools (Mouta et al., 2024). The sociocultural perspective offers a valuable foundation for addressing these concerns, as it highlights the importance of context-sensitive scaffolding, inclusivity, and culturally aware mediation (Puntambekar, 2022; Lantolf & Poehner, 2023). Therefore, this study adopts Sociocultural Theory as a conceptual guide to reflect on

whether AI tools ensure user privacy, minimize bias, and adapt to users' cultural backgrounds. These prompts help educators assess whether AI tools align with the core values of socially mediated, ethically responsible language teaching.

DOI

Diffusion of Innovation Theory (DOI) theory posits that the adoption and spread of an innovation are influenced by the innovation itself, the characteristics of adopters, communication channels, time, and the surrounding social system (Rogers et al., 2014). Previous studies have identified that the core challenges in the adoption of digital tools lie in the lack of digital skills training, insufficient infrastructure and resources, and poor access to the internet and digital platforms (Okoye et al., 2023). In this context, DOI provides an often-overlooked yet significant perspective for assessing the feasibility of implementing AI tools in real instructional conditions. Accordingly, this study incorporates DOI to guide the evaluation of whether AI tools can be easily piloted in a practical teaching context. This consideration of trialability helps teachers make low-risk, evidence-informed decisions prior to large-scale implementation.

Overall, these theoretical perspectives provide a solid foundation for evaluating AI tools with greater depth and relevance. Instead of focusing only on a tool's functions, the framework encourages educators to consider how well the tool supports language learning goals, respects cultural and ethical concerns, and trialability within practical teaching conditions. By linking theoretical principles with real teaching questions, the framework supports educators in making choices that are both practical and pedagogically meaningful. This theory-informed approach encourages the thoughtful integration of AI in language teaching, aligned with both learner needs and instructional values.

Conceptualizing the Theory-Informed Framework

This section is organized into three parts. Firstly, it introduces the key components of the framework. Secondly, it explains the formation process of the framework. Lastly, it presents an implementation scenario to demonstrate an application in language teaching contexts.

Key Components of the Framework

To evaluate the pedagogical soundness, integration depth, and contextual feasibility of AI-powered tools in language teaching, this framework introduces three key components that encompass both theoretical foundations and practical indicators. Selecting AI tools for language teaching should follow a clear and logical progression based on the "Why–What–How" with a sound instructional framework (Figure 1). Educators should begin by clarifying why they are using AI, focusing on whether the tool meaningfully supports learning objectives and teaching approaches, rather than being chosen for its novelty or appearance. Once this purpose is clearly defined, attention should turn to what the tool is expected to do within the instructional process. It is essential to ensure that the tool integrates seamlessly into teaching tasks and contributes directly to learning, rather than functioning

as an adjunct element. Finally, educators should consider how the tool will be implemented in practice, evaluating its usability, accessibility, and feasibility within a practical teaching context. This helps ensure that AI adoption genuinely enhances instructional quality, rather than performing a display of innovation. Therefore, this framework is composed of the following three components: Pedagogical Alignment, Technological Integration, and Adoption and Usability, ensuring that AI tools not only function well technically but also align with instructional goals and sociocultural realities.

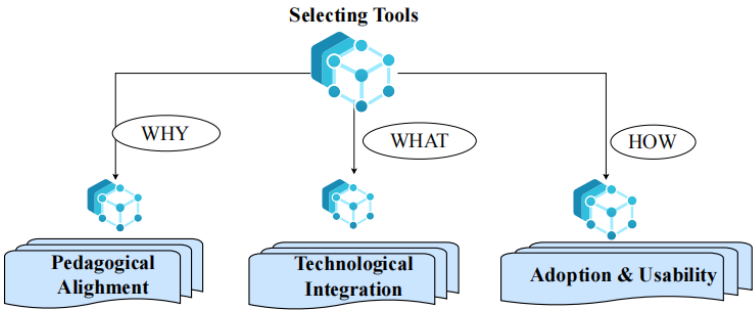

Figure 1. Key Components of the Framework for Selecting AI Tools in Language Teaching

The first key component of the framework is Pedagogical Alignment, which ensures that AI tools are grounded in sound language teaching principles. This component includes three indicators. The first, Instructional Goal Relevance, draws on CLT (Canale & Swain, 1980), emphasizing that AI tools must align with communicative goals central to modern language teaching. The second indicator, Content Appropriateness, is informed by the principles of CALL (Bax, 2003) and evaluates whether the content generated by the tool reflects authentic, task-based language use. The third indicator, Feedback Interactivity, is underpinned by SLA (Krashen, 1982), which highlights the importance of comprehensible input and interactive feedback in promoting acquisition. Together, these indicators assess whether the tool meaningfully supports pedagogical intentions and enhances instructional effectiveness. This logic ensures that the selected tools are pedagogically appropriate by supporting clear instructional goals, providing relevant content, and enabling meaningful learner engagement.

The second component, Technological Integration, evaluates what elements of an AI tool contribute to its effective use in innovative and contextually responsive teaching. It includes three indicators. The first, New Instructional Techniques, is informed by the SAMR model (Puentedura, 2006), which assesses whether technology transforms teaching practices beyond substitution. The second indicator, Personalization and Multimodality, is grounded in TPACK (Mishra & Koehler, 2006), which stresses the need for integrating content, pedagogy, and technology to support diverse learners. The third indicator, Technical Customization, derives from HCI (Dix, 2009) and examines whether the tool can adapt to different learner profiles, educational levels, and cultural contexts. These components are pedagogically coherent, progressing from the transformation of teaching practices to the integration of pedagogical and technological knowledge, and, ultimately, to contextual adaptability. This reflects a systematic rationale for AI tool selection, emphasizing the increasing integration of technological, pedagogical, and contextual considerations in determining a tool's instructional suitability.

The third component, Adoption and Usability, ensures that the selected AI tool demonstrates user-friendly design, cultural and ethical alignment, and practical feasibility for practical implementation. It includes three indicators. The first indicator, Ease of Use, is based on TAM (Venkatesh & Bala, 2008), emphasizing that tools must be user-friendly for both teachers and learners to ensure adoption. The second, Cultural and Ethical Compatibility, reflects Sociocultural Theory (Vygotsky, 1978), assessing whether tools support diverse user backgrounds, minimize bias, and respect learner privacy. The third indicator, Trialability, is informed by the DOI (Rogers et al., 2014), which emphasizes the importance of assessing whether users have the conditions to experiment with new technologies on a limited scale before full implementation. In this context, it refers to whether the AI tool can be piloted in a small-scale teaching setting, supporting its gradual and evidence-based integration into existing practices. This indicator is essential for evaluating adoption feasibility, ensuring that the tool is usable, adaptable, and implementable. Thus, the combination of diverse dimensions enables educators to move beyond surface-level functionality toward reflective and critical tool selection that aligns with instructional goals, learner needs, and the sociocultural realities of diverse educational contexts.

The Formation of the Framework

In the context of the rapid proliferation of AI tools for language teaching, educators are often faced with the challenge of determining which tools best align with their instructional goals and contexts. This study proposes the ATS Framework (Figure 2) to support informed, theory-based decision-making for educators navigating the growing landscape of AI-powered tools in language teaching. By offering structured criteria grounded in educational theory, the framework aims to assist teachers in making informed and pedagogically sound decisions when choosing from a wide range of available AI tools.

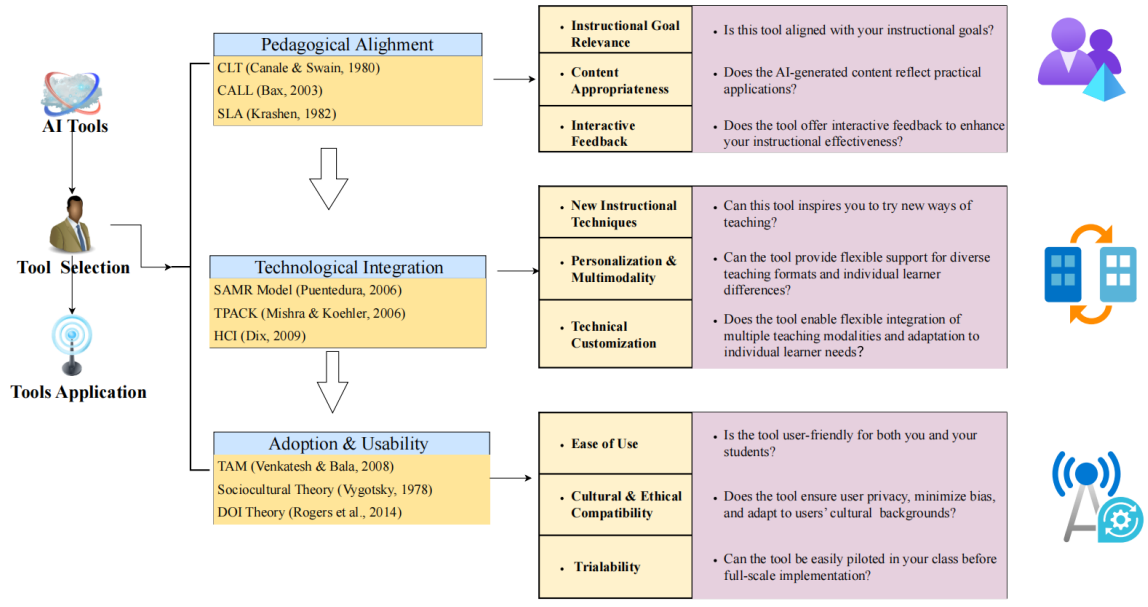

Figure 2. The Presentation of the AI Tool Selection (ATS) Framework

The framework illustrated above is designed to guide educators in the systematic selection of AI tools for language teaching. It addresses the practical challenge posed by the increasing availability of such tools by offering a

structured evaluation process grounded in three key components: Pedagogical Alignment, Technological Integration, and Adoption & Usability. Each component is supported by well-established theoretical underpinnings and corresponding indicators. To be more specific, these theories form an interrelated foundation that corresponds to the "Why–What–How" logic underpinning the framework. Firstly, within Pedagogical Alignment, CLT (Canale & Swain, 1980) establishes the communicative goal of instruction, providing the overarching pedagogical purpose. Building on this, CALL (Bax, 2003) situates technology as a normalized medium through which communicative competence can be achieved. Furthermore, Krashen's SLA theory (1982) complements these perspectives by providing the linguistic rationale, ensuring that AI-assisted input remains comprehensible and acquisition-driven in language teaching. Together, these theories explain why AI tools should be selected to enhance meaningful communication and authentic language use. Secondly, within Technological Integration, the SAMR model (Puentedura, 2006) conceptualizes the progressive levels of technology-enhanced transformation, clarifying the extent to which AI tools can augment or redefine teaching tasks. Building upon this structural understanding, TPACK (Mishra & Koehler, 2006) bridges pedagogy and technology through teachers' integrated knowledge bases. Moreover, drawing on HCI design principles (Dix, 2009), this framework promotes adaptability and user-centered interaction. Collectively, these theories define what kinds of technological configurations can effectively support pedagogical aims while maintaining an optimal user experience. Thirdly, within Adoption & Usability, TAM (Venkatesh & Bala, 2008) offers a multi-factor account of technology acceptance that encompasses system characteristics, social influence, facilitating conditions, and individual differences. Building on this perspective, Sociocultural Theory (Vygotsky, 1978) highlights the role of social mediation and collaborative scaffolding in supporting meaningful teaching uptake, while DOI theory (Rogers et al., 2014) explains how innovations diffuse and become institutionalized across educational contexts. Collectively, these theories clarify how AI tools can be feasibly implemented, adopted, and sustained in authentic language teaching settings. Through this coherent theoretical alignment, the ATS Framework integrates pedagogical purpose, technological design, and practical adoption into a unified, theory-informed model for AI tool selection in language teaching.

While the indicators delineate the key dimensions involved in evaluating AI tool selection, the accompanying guiding questions provide concrete directions for interpreting and applying each dimension within real-world instruction contexts. These questions serve to bridge the gap between theoretical constructs and practical decision-making by prompting educators to engage in context-sensitive and pedagogically grounded reflection. Rather than functioning as a static checklist, the ATS Framework operates as a theory-informed, multidimensional model that supports educators in making informed, instructionally sound, and contextually relevant choices. Importantly, each guiding question is grounded in well-established theories from language education and educational technology, thereby ensuring both conceptual rigor and practical relevance. This theoretically robust foundation reinforces the framework's capacity to guide nuanced evaluations. Moreover, this structured approach enables educators to assess AI tools not through isolated or superficial criteria, but through an integrated lens—one that aligns instructional objectives, technological affordances, and teaching realities. As a result, the framework facilitates reflective, informed, and adaptable decision-making. Its value lies not only in enhancing instructional coherence and empowering educators in their use of technology, but also in offering a transferable model that is applicable to both research and professional practice across diverse teaching contexts.

However, it is necessary to note that an AI tool does not need to perfectly satisfy all nine indicators of the ATS Framework to be adopted. Instead, the framework facilitates balanced and context-sensitive decision-making. Educators can prioritize indicators based on their specific instructional goals, teaching realities, and institutional constraints. For example, if a tool strongly supports pedagogical alignment and is feasible within the local infrastructure but offers limited technical customization, it may still be a valuable choice. The ATS Framework is designed not as a rigid checklist but as a structured guide to ensure that adoption decisions are informed, pedagogically sound, and contextually appropriate. Therefore, future research can focus on refining the weighting or prioritization of individual indicators within the ATS Framework. This would enable a more nuanced decision-making process, allowing educators to adapt the framework to diverse instructional conditions. By investigating which components are most critical in different teaching scenarios or educational settings, researchers can further enhance the framework's practical utility and ensure that AI tool selection becomes both more targeted and pedagogically meaningful.

Implementation Scenario

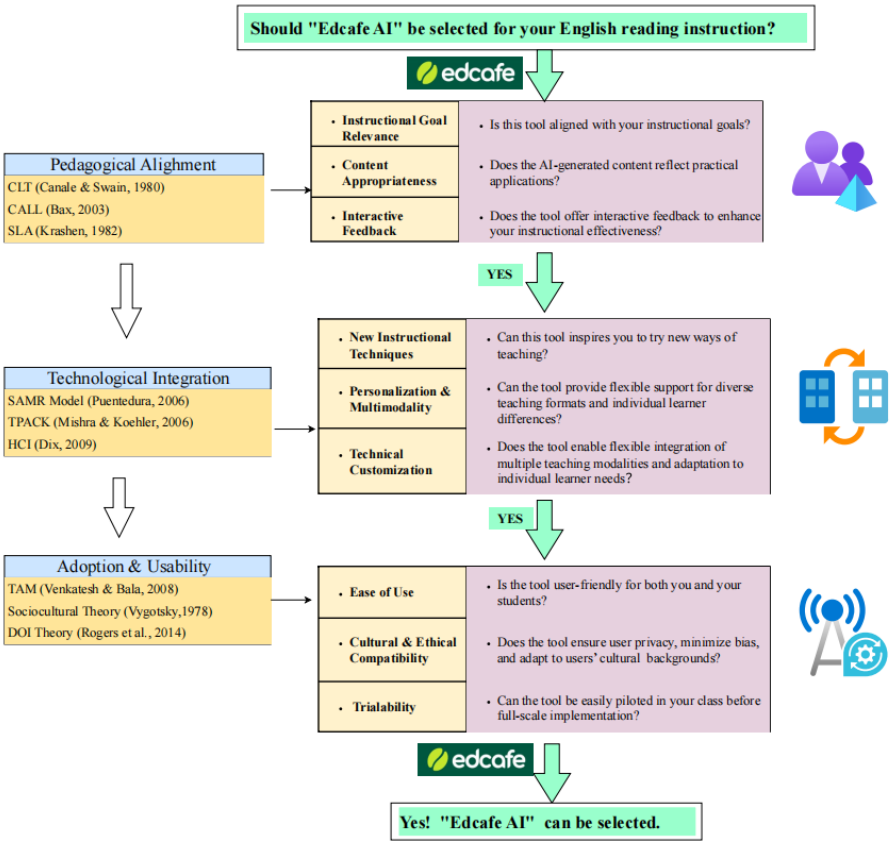

Figure 3. An Example of ATS Framework–Informed Decision on AI Tool Selection

As illustrated in Figure 3, to illustrate how the ATS Framework informs AI tools selection, the following scenario considers whether to adopt the AI tool "Edcafe AI" (n.d.) for the English reading instruction at a Chinese university. Based on the ATS Framework, all indicators across Pedagogical Alignment, Technological Integration,

and Adoption & Usability support the selection of this tool. First, in terms of Pedagogical Alignment, Edcafe AI demonstrates strong consistency with instructional goals. It enables teachers to design tailored reading tasks aligned with teaching objectives, ensuring the relevance of instructional content. The generated materials incorporate practical, contextualized language use. Integrated functions, such as AI voice reading, keyword highlighting with explanations, and interactive quizzes, provide immediate feedback that enhances students' comprehension and engagement. Together, these features effectively support reading comprehension and language development within authentic learning contexts. Second, regarding Technological Integration, the tool facilitates innovative instructional approaches and multimodal learning experiences. The combination of reading texts, audio input, vocabulary annotations, and embedded assessments encourages diversified reading activities and supports flexible adaptation to students' needs. Its customization options allow teachers to adjust task complexity and integrate multiple instructional resources, including flashcards, quizzes, and lesson slides, within a single platform. This seamless integration enhances the coherence and efficiency of technology-mediated reading instruction. Finally, under Adoption & Usability, Edcafe AI exhibits high user-friendliness and adaptability. Its intuitive interface allows both teachers and students to operate the system with minimal training, while the platform's privacy-conscious and adaptive design ensures ethical and inclusive use. Moreover, its scalability supports small-scale piloting before full implementation, enabling teachers to evaluate and refine instructional practices. As a result, Edcafe AI aligns with pedagogical objectives, promotes meaningful technological integration, and demonstrates strong adaptability. These findings collectively justify its selection as a pedagogically sound and practically viable tool for language teaching.

Discussion

The development of the ATS Framework is driven by the growing need for a systematic and theory-informed approach to selecting AI tools in language teaching. The framework demonstrates that effective AI integration involves more than technical functionality. Its success depends on how well the tool aligns with pedagogical goals, supports meaningful interaction, and fits teaching realities. Through its three interrelated components and indicators, the framework transforms theoretical constructs into actionable evaluative criteria. Each component is supported by guiding questions that bridge theory and practice, enabling teachers to make reflective and evidence-based decisions rather than relying on intuition or technological novelty. This operational structure clearly demonstrates the framework's central strength: its capacity to translate educational theory into concrete, context-sensitive guidance for instructional decision-making.

In comparison with previous studies, the ATS Framework advances beyond existing models such as TPACK (Mishra & Koehler, 2006) and SAMR (Puentedura, 2006) by integrating pedagogical, technological, and adoption-oriented considerations within a single framework. Previous frameworks provide valuable conceptual insights but often lack practical mechanisms and actionable support for practical implementation in teaching contexts (Bower, 2017). Similarly, CALL-based approaches (Bax, 2003) tend to emphasize linguistic or technological dimensions in isolation, overlooking factors such as usability and teaching feasibility. However, the ATS Framework addresses these limitations through its layered and multidimensional design, which integrates theoretical depth with pedagogical pragmatism. This integration firmly positions the ATS Framework as a

theoretically coherent and pedagogically adaptable model for diverse instructional settings.

The ATS Framework also has significant implications for practice and policy. For educators, it serves as a framework to evaluate AI applications according to communicative relevance, instructional alignment, and contextual suitability, promoting pedagogically informed rather than trend-driven adoption. For institutions, it offers a structured reference to guide professional development, curriculum design, and policy formulation, fostering responsible and sustainable AI integration. Moreover, the framework introduces a context-aware and ethically attentive orientation by embedding culturally adaptive considerations and explicit privacy awareness into its structure. This orientation aligns with growing concerns regarding the ethical and sociocultural compatibility of AI tools in education (Al-Zahrani & Alasmari, 2024). As Mouta et al. (2024) note, there is an increasing demand for frameworks that balance innovation with ethical responsibility. The ATS Framework supports this direction by foregrounding pedagogical integrity and cultural relevance alongside technological advancement, ensuring that AI integration remains both meaningful and ethically grounded in language teaching.

Conclusion

This study proposes the ATS Framework for selecting AI tools in language teaching. By integrating theoretical perspectives from language education, educational technology, and innovation adoption, the framework bridges the gap between pedagogical goals and emerging AI capabilities. Moving beyond descriptive or tool-specific evaluations, the framework offers a systematic, theory-informed structure designed to support educators in making decisions that are both pedagogically sound and contextually relevant. The framework's strength lies in its multi-layered design, which begins with aligning tools to instructional objectives and learner needs, progresses through technological integration, and culminates in evaluating adoption and usability factors. Furthermore, by presenting the indicators through guiding questions and avoiding jargon-laden terminology, the framework ensures accessibility for educators while preserving theoretical rigor and practical relevance.

Nonetheless, this study is not without limitations, which provide valuable insights for guiding future development. As with any conceptual framework, ongoing refinement is necessary to keep pace with the rapid evolution of AI technologies and educational practices. The framework's broad categories, while offering flexibility, may lead to varied interpretations in practice, highlighting the need for clearer operational definitions and implementation guidelines. Additionally, while grounded in robust theoretical foundations, empirical validation through empirical studies will be essential to confirm its practical relevance and effectiveness. Future studies that involve educators and learners across varied educational and cultural contexts can further enrich the framework, clarify which components are most critical in different scenarios, and enhance its applicability for more targeted and pedagogically meaningful AI tool selection.

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