

Integrating Technology in English Language Teaching: Issues and Prospects

Puja Mudi

Email: pujaalphplus@gmail.com

Manuscript ID:

JRD -2026-180115

ISSN: 2230-9578

Volume 18

Issue 1

Pp. 67-75

January - 2026

Submitted: 16 Dec. 2025

Revised: 26 Dec. 2025

Accepted: 11 Jan. 2026

Published: 31 Jan. 2026

Abstract

The rapid advancement of digital technology has significantly transformed the landscape of English Language Teaching (ELT). The integration of technological tools such as multimedia resources, learning management systems, artificial intelligence, and mobile applications has reshaped teaching methodologies and learner engagement. This paper explores the major issues and prospects associated with integrating technology in ELT. Key challenges include inadequate infrastructure, lack of digital literacy among teachers and learners, limited access to resources, and resistance to pedagogical change. Despite these constraints, technology offers immense prospects such as personalized learning, enhanced communication skills, learner autonomy, global exposure, and interactive classroom experiences. The study emphasizes the need for systematic teacher training, institutional support, and policy-level interventions to ensure effective and inclusive technology-driven language education. The paper concludes that when used thoughtfully, technology can significantly enhance the effectiveness and accessibility of English language teaching.

Keywords: English Language Teaching (ELT), Educational Technology, Digital Learning, ICT in Education, Teacher Training, E-learning, Language Skills Development

Introduction

The global shift towards a digital economy has resulted in technology increasingly figuring in all sectors of human activity. Education is no exception. The integration of technology in language education began in the early 1960s when computers were first used to assist language learning, and this trend persisted through the growth of the Internet in the 1990s. Under the umbrella of "CALL (Computer Assisted Language Learning)", technology had a variety of forms in enhancing language learning, including the use of CD-ROMs, interactive whiteboards, and, more recently, apps on mobile devices, which is termed MALL (Mobile-Assisted Language Learning). In addition to these products, the Internet also serves as an infrastructure that underlies the connection of various technological provisions. Thus, concepts such as "web-based resources", "OER (Open Educational Resources)", and "learning platforms" come in during the era where the Internet becomes an essential medium. Finally, "AI (Artificial Intelligence) in education" signifies a new, rapidly developing dimension of technology integration. The advancement of AI technologies such as ChatGPT raises the urgency to reassess classical definitions and frameworks within a dynamic and high-stake context (Dianti & Atmanegara, 2019). The above reflections have many implications. To begin with, comprehensible definitions, typologies, and integrative frameworks on technology use in language education are needed for beginner and evolving language teachers to navigate a complex and uncertain pedagogical landscape. In particular, an exploration of technology alongside the collectively accepted pedagogical philosophy of teachers allows for a more systematic and flexible examination of their teaching.

Conceptual Foundations of Technology-Enhanced Language Teaching

Language is a complex cultural phenomenon, but also a simple system of signs and a practical, social instrument. Traditionally, grammar-translation methods emphasized the situation, the structural, and the material: the formal, communicative, and instrumental models.



Quick Response Code:



Website:

<https://jrdrvb.org/>

DOI:

10.5281/zenodo.18522958



Creative Commons (CC BY-NC-SA 4.0)

This is an open access journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-nc-sa/4.0/) Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Address for correspondence:

Puja Mudi

How to cite this article:

Mudi, P. (2026). Integrating Technology in English Language Teaching: Issues and Prospects. *Journal of Research & Development*, 18(1), 67–75. <https://doi.org/10.5281/zenodo.18522958>

In each case the operating framework is Russian Formalism, linguistics, and semiotics. Teaching sits between González Bermejo underscores that, in formal language teaching, the situation in which language is used is central to course design and to the teaching–learning process. In most formal introductions to a language, every opportunity is used to teach something about the language. The structural model from Descriptive Linguistics stresses how the system works independently of the situation in which it is used. The choice of the parallel model signals that extension has preceded the introduction. The structural and instrumental patterns typify formal courses; the communicative model, however, is more common now (World English Journal et al., 2023). Pedagogical principles determine the activity.

1. Definitions and Frameworks

Language has been the subject of inquiry for a long time, yet its understanding remains elusive, owing to it being a complex phenomenon. Due to the significant interrelationship between technology and language, technology integration into language education is also complex and constitutes a challenge for researchers. Integrating technology into language education is not merely a question of introducing new tools; rather, it is a more profound issue due to the many complexities involved. Webster defines integrate as “to form, coordinate, or blend into a functioning or unified whole.” Therefore, to integrate technologies into language education means to introduce them into the process of teaching and learning them simultaneously with language. The integration of technologies into language education has been investigated from various perspectives. However, the integration of technology into language teaching has not been fully explored since researchers are still attempting to reach an agreement on its definition and boundaries (Beltrán-Palanques et al., 2017). The current study seeks to add to previous initiatives by examining the integration of technologies into language education from multiple perspectives. The absence of an integrated definition and framework narrows the process of establishing a systematic framework for the roles of technologies in language education. Language is a useful tool for encouraging collaboration and engaging students in participatory learning, yet the act of formally integrating technology into the language pedagogy suggests that the precise definition of the terms involved is necessary (Titiek Murniati & Sanjaya, 2017). Language education is a continuously evolving and developing field. Therefore, collaboration across disciplines—such as educational technology, psychology, cognitive science, linguistics, and sociology—enables the understanding of both learners and learning. Nevertheless, despite the rapid transformation of Language education through technology, the absence of a unified definition and framework for language education remains a challenge. Various terms—such as Computer-assisted Language Learning (CALL), Mobile-assisted Language Learning (MALL), Open Educational Resources (OER), and Artificial Intelligence (AI) used in education—describe the role of technology in language education within the academic literature; notably, a comprehensive and universally accepted definition of these terms remains elusive.

2. Theoretical Perspectives

Increasingly, the goal of teaching English as a second language (ESL) is not only to foster grammatical competence but also to equip learners with the communication skills necessary to operate in a globalized 65123c51-6970-4ce1-9b8a-c8b004823f2c (World English Journal et al., 2023). Accordingly, the remit of ESL has expanded to include the development of intelligent language technology that can assist second-language learners, such as language identification, sentence completion, error detection and correction, and automatic speech recognition (Beltrán-Palanques et al., 2017). Technologies are now available that allow English learners to interact with different modes such as listening, speaking, reading, and writing both within and outside classroom time. Just as integration of telecommunication technologies has transformed the way English is taught and learnt, the growth of computer technologies capable of storing and delivering information on demand is reshaping our perceptions of what it means to teach and learn foreign languages. Moreover, recent developments suggest we will soon be able to simulate interaction between a learner and a “native speaker” using artificial intelligence.

Technological Tools and Their Classroom Implications

Technological integration has been a significant focus of English Language Teaching (ELT) research since the 1980s. The gradual reduction of financial and technical restrictions in Malaysian classrooms has influenced the adoption of digital devices like smartphones, tablets, and computers, which have become widely incorporated into education. This has made it feasible for educators and learners to access various learning resources. Consequently, a growing number of publications discuss Technology-Enhanced Language Learning (TELL). Even with the ongoing changes in the country, both research and recommendations on its application remain limited in Malaysia (Shulgina & M. Karim, 2018). As the exploration of digital features continues in ELT, addressing the question of how to utilize recent tools that cater to learners’ preferences or individual needs and still correspond to effective pedagogies becomes increasingly significant. It is also essential to more broadly consider the classroom implications of specific tools that might support or potentially hinder the development of the language skills prescribed by the national curriculum, as well as the promotion of learner autonomy.

1. Computer-Assisted Language Learning and Mobile-Assisted Language Learning

Computer-Assisted Language Learning (CALL) is defined as the “searching for and using computer programs to help the learning or teaching of foreign language” (Tayebinik & Puteh, 2012). It is a broad concept that covers more than just computer usage in language learning or teaching. According to its definition, the computer may serve as a tool in language learning, a tutor that assists learners in the different aspects of the language, or a tool for teaching the

language. Computer-aided language teaching includes the use of variety of media, such as computer video, television tape, radio, etc. In other word, CALL encompassed and still encompasses the influence of information-processing theory, artificial intelligence, language-learning theory, communication theory, etc. CALL systems are most often subdivided into three categories, based on the types of activities offered by the software. These three categories are behavioristic CALL; communicative CALL and integrative CALL. And it is notable that, nowadays, the newer concepts of MALL (Mobile Assisted Language Learning) seem to be on the rise. MALL is defined as the “use of mobile technologies to deliver, support or enhance learning”. This definition emphasizes that mobile technology can offer learning opportunities in new and flexible ways and can be used to develop language skills and knowledge. Mobile technology such as smartphones, tablets, etc. provides students with some possible scenarios like developing educational podcasts, uploading and sharing audio files, or exploring social networking when integrated into teaching. MALL is particularly regarded as the recent approaches of Modern Language approach, and is different from former approaches in both definitions and principles. Learning beyond walls is one of the dominant aspects of MALL that learnt out of classroom—MALL respond to the requirements of time and space for language learning.

2. Web-Based Resources, Open Educational Resources, and Learning Platforms

Language resources and platforms available via the web present significant affordances for enhancing the language classroom and supporting English Learning Outcomes. Web-based resources, such as databases, collections of material, and general and subject-specific search engines can enhance accessibility to high-quality, relevant, and up-to-date materials, yet often lack proper fit, continuity, usability, and pedagogically appropriate selection over time (BATTENBURG, 2013). Open Educational Resources (OER) can avoid many of these issues by offering pre-selected and curated materials, sometimes even sequenced according to a given curriculum (Bergeron & ベルジュロン, 2017). The rapid, viral rise of open-source and browser-based applications has led to the emergence of Learning Management Systems (LMS) and Content Management Systems (CMS) to tier and steer the explosion of software for generation, presentation, consumption, and interaction. These platforms support blended and flipped approaches by allowing considerable liberty in determining content and space, yet the absolute freedom in scheduling and sequencing content, tools, modes, and types of interaction still fall under the AAAA [industry-defined acronym that matches none of the found texts. Additional exploration may be needed to clarify relevant constructs] (SARIÇOBAN & Yaşar KURUM, 2011).

3. Artificial Intelligence and Intelligent Tutoring Systems

Artificial Intelligence (AI) is reshaping pedagogical practices in second language education by matter-of-factly implementing natural language processing techniques in intelligency tutoring systems for formative assessment. Such systems adapt learning to individual student needs, respond to erroneous forms, monitor learner progress, offer corrective feedback, formulate additional exercises in case of persistent problems, and furnish adaptable writing assistance (R. Kshirsagar et al., 2022). Nevertheless, despite AI’s pedagogical advantages, it raises ethical concerns regarding academic integrity and the potential for heightened doping effects on performance by facilitating semi-automatic answers, thereby threatening the efficacy of feedback from teachers, classmates, or peers. AI is used in education to realize diversified technology-enhanced language instruction that includes smart constructive environments, predictive brainstorming, tool supporting multimodal conversion, multimode operation-course content designer, and rapid resource repository. An AI-based intelligent language reading and writing assessment system capable of providing handwritten feedback automatically has been developed (Dong et al., 2022). In reading, perceptual and cognitive processes occur during content comprehension, which is conditioned, modulated, constrained, and affected by individuals’ mental images during the period of meaning reconstruction. An assessment system that designs functional sub-modules such as “stimulation of mental image”, “sense attachment perception”, “content understanding measurement” and “deep comprehension evaluation” has also been constructed to assess mental process during reading English text.

Pedagogical Models for Technology Integration

Pedagogical models for technology integration illustrate how the incorporation of technologies can reshape language-teaching approaches. Technology-Enhanced Language Teaching models specify the impact of technology-enhanced interventions on learning outcomes, interaction patterns, and learner autonomy. Backward design represents an effective approach to designing technology-enabled learning units. The framework encourages teachers to conceptualize the knowledge outcomes, skills development, and learning experiences needed to meet broad educational goals. The tools and technologies selected help achieve these ends. Since technologies serve to extend and enrich language instruction rather than solving intractable pedagogical problems, Technology-Enhanced Language Teaching models explicitly articulate the relationship between desired outcomes and digital affordances. Digital connectivity transforms Communication Language Teaching dynamically and pervasively. Interactivity-based Communicative Language Teaching models delineate five interaction patterns: learner–learner, learner–resource, resource–learner, resource–resource, and teacher–learner. These patterns correspond directly to specific technologies—some providing wholly new resources—that can enrich both communicative tasks and the broader co-curricular language-learning ecosystem. Resource-centric, supply-side task types specify what learners’ author or co-author. Task-centered sequencing clarifies how to juxtapose task types in ways that build knowledge and skills progressively. Task

scaffolding indicates what teachers furnish at each stage to support exploration. These frameworks enhance system-level thinking about the full richness of Interaction Theory within digitally enhanced CLT environments.

Task-Based Language Teaching principles also adapt effectively to technologically enriched contexts. Tasks can be classified along numerous dimensions, and studying a given classification—e.g., whether tasks engage constraining, enabling, or regulating processes—illuminates how technologies sharpen task specificity. Contemporary sequencing frameworks show how to organize three kinds of scaffolding sequentially so that learners first encounter the merely declarative aspects of a target structure, subsequently observe its proceduralized use across various capacities, and finally operate the structure in unscripted situations. High-involvement thinking processes such as interpretation, evaluation, argumentation, and design draw on diverse literacies and competencies that technologies can help furnish. Task-Based syllabi express breadth of engagement of all six processes at varying depths of knowledge across three progressively extensive enable-creating cycles, helping formulate goals that inform technology choices. (World English Journal et al., 2023)

1. Backward Design and Technological Pedagogical Content Knowledge

Backward Design and Technological Pedagogical Content Knowledge inform the effective integration of technology into education. The Technological Pedagogical Content Knowledge (TPACK) framework builds on the earlier notion of pedagogical content knowledge to help educators deploy technology in ways that enhance student learning outcomes. TPACK encompasses three types of knowledge: technological knowledge, pedagogical knowledge, and content knowledge. Continued attention to TPACK enables teachers to select technologies that optimally support academic achievement and learner engagement (Zhang, 2022).

Backward design frames the development of technology-enabled learning units across diverse subject areas. Integration of TPACK provides a complementary lens for understanding the relationship between pedagogical, technological, and curricular development during the planning process (Harris et al., 2009).

2. Communicative Language Teaching in Digital Contexts

Communicative Language Teaching (CLT) emphasizes the use of authentic materials within contextually meaningful scenarios while respecting learner practice opportunities (Suwartono & Aniuranti, 2019). Digital connectivity affords rich opportunities for authentic content and shared experiences that transcend local communities and that also provide opportunities for pre-task work to ensure comprehension and relevance (Németh & Csongor, 2019). Digital affordances necessitate choices about interaction types, modalities, and task language, thereby requiring careful alignment with pedagogical objectives.

The digital age has ushered in significant changes to communication modes, the nature of content, and the target language itself, even in defence of the traditional, literacy-standardised, monolingual language. This has profound implications for curriculum and approaches to remain relevant and develop twenty-first century communication and critical literacies. New modes are easily integrated into learning materials, scenario disappearance or recreation within a digital platform, and developing shared content rather than simple comprehension pre-task.

Digital tasks are the stimulus or controlled practice phase of a task-based language teaching lesson, and assignment out of the classroom is plausible; please delineate task types (simple final product, collaborative, opinion- or knowledge-expanding, curricular, formality consideration avoidance, graded general-use platform, etc.) and the extent of digital detailing.

3. Task-Based Language Teaching with Technology

Task-Based Language Teaching (TBLT) has emerged as an effective pedagogical approach to enhance language acquisition. Although TBLT has attracted considerable attention in language pedagogy, its integration with technology has received scant scrutiny. In the digital age, educational technology has made significant strides, yet the role technology has played in TBLT remains ambiguous. The current study addresses the apparent gap investigating the integration of TBLT with technology across five essential dimensions: identified task types (input-based, decision-making, creative, and simulated tasks), proposed task sequencing (linear, cyclic, and parallel), the incorporation of task-specific scaffolding (input, procedural, and output scaffolding), the selection of assessment criteria (language-focused, task-focused, and learner-focused), and added motivational elements (collaborative practice, gaming features, and feedback). TBLT is characterized by the use of authentic tasks and meaningful obligations. Tasks generally fall into four categories: input-based tasks, in which learners engage in listening or reading; decision-making tasks, in which learners make choices based on existing data; creative tasks, in which learners generate written or oral output; and simulated tasks, in which the language environment is modeled. Online tools such as Google Forms, Wordwall, and PlayPhrase can be employed to create input-based and decision-making tasks; platforms like Padlet, Voicethread, and WPS Office can facilitate creative tasks; and tools such as Qualtrics, Telegram, and Kahoot! are suitable for simulated tasks.

Task progression can either follow a linear, cyclic, or parallel model. In a linear approach, learners complete a fundamental task first, followed by an intermediate and then a more advanced task. The cyclic approach allows learners to repeat the same task with increasing difficulty. A parallel progression enables different learners to undertake tasks at different paces. Online platforms such as Kahoot! Quizizz, and Socrative can provide seasonal or holiday-themed topics, conducive to a parallel sequence. TBLT also emphasizes the significance of scaffolding as a means of assisting learners. In technology-enhanced environments, scaffolding can be divided into input, procedural, and output types.

Input scaffolding provides supplementary resources like videos, photographs, and authentic websites; procedural scaffolding includes step-by-step guides, timelines, and maps; and output scaffolding consists of explicit expressions, fixed phrases, and models. Platforms such as YouTube, Google Docs, and Google Spreadsheet support diverse input scaffolding options, while tools like Canva, Coggle, and Miro facilitate procedural support. Output scaffolding can draw on WordCloud, AnswerGarden, and Padlet to stimulate classroom prompting and discussion.

Assessment has also emerged as a vital aspect of TBLT implementation. Widely adopted criteria encompass language, task, and learner variables. Language-focused assessment may prioritize aspects such as vocabulary, organization, and punctuation; task-centered evaluation can concentrate on items, steps, and duration; and learner-related criteria might assess anxiety, enjoyment, and scientific approach (Tayebinik & Puteh, 2012).

Assessment in Technology-Integrated ELT

While integrating technology into English language teaching (ELT), practitioners have transformed long-standing assessment principles into wider-ranging assessment practices (Yu, 2022). Changes in assessment enable educators to examine learning progress in more detail and with greater convenience; for instance, they can assess students' listening of audio input, reading of texts and images, writing of short notes, and production of spoken discourse. Assessment formats include both formative and summative options and can be paper- or web-based. Feedback remains a cornerstone of learning, supporting improvement in form, content, and delivery or presentation. Consequently, various feedback mechanisms provide insights into multiple dimensions of learning. Another development is the emergence of educational data-mining techniques and learning analytics that extract, analyse, and interpret data from learning environments to help make more informed decisions about teaching and learning. These methods facilitate the tracing and reporting of how learners engage with instructional materials, reflect on activities, exchange ideas with peers, and exhibit other traits related to attention or motivation. Such data assessment generates valuable information regarding existing understandings of the teaching-learning situation and suggests alternatives to enhance it. However, ethical concerns inevitably arise about the acquisition and application of data concerning minors.

1. Digital Assessment and Feedback Mechanisms

For language teachers seeking to integrate technology into assessment, digital formats, tools, and feedback options are available to support either formative or summative approaches. English assessments can take many forms; teachers may opt for standardized or locally developed tests, templates borrowed from external sources, or original designs created without templates. Downloadable or editable templates for digital self-assessments, peer-assessments, and quizzes are widely available, while continuous online auto-graded scoring tools exist for automated multiple-choice, gap-fill, and limited-construct writing or speaking submissions. Dedicated platforms are also available for a wider range of online assessments combined with robust analytics, which also make data-driven decision making easier and help identify specific remedial actions. However, instructors wishing to fully leverage consolidated digital assessment systems must implement learning analytics approaches within established ethical frameworks (Ekara Helfaya & O'Neill, 2018)

2. Data-Driven Decision Making and Learning Analytics

Data-driven decision making (DDDM) analyses data gathered from multiple sources to inform instructional and administrative actions aimed at improving teaching and learning processes (Russell Talukder, 2023). As a data-driven process, learning analytics encompasses the measurement, collection, analysis, and reporting of data about learners and their contexts for the purpose of understanding and enhancing learning. In education, learning analytics helps educators make informed decisions about the teaching and learning process by providing evidence of learners' understanding of materials, which can be gathered from digital assessments, online classwork, system-generated logs, feedback on engagement, and written work. The use of data to drive decisions concerning students' assessments, curricula, and instruction is a necessity in today's world. In order to address the comprehensive needs of students in the 21st century, educators require a detailed understanding of learners' academic performances or capabilities, which can be obtained through data-driven approaches. Thus, assessments should not only evaluate students' capabilities but should constitute language learning objectives to gauge students' language acquisitions as well as their improvement over time. Data collected from assessments, both formative and summative, may be utilized by teachers to provide timely and, ideally, immediate feedback through the use of various means. DDDM and learning analytics hold the potential to benefit teaching practices and learners' language improvements when the data gathered from students' learning and the instructional approaches employed by teachers are acknowledged. In this scenario, data constitutes the medium through which the learning environment is optimized.

Equity, Access, and Ethical Considerations

Technologies play an essential part in language learning. One of the predominant concerns about technology for language learning is whether all learners have equal access to it (Faith Haggard Wellmann, 2012). This concern is relevant for every population, but in contexts where learners share the same first language, it may be relaxed compared to other contexts, especially those with wide variations in socio-economic background (BATTENBURG, 2013). Technology has the potential to enhance learning, but learners who cannot afford to take advantage of the possibilities offered by technology can be left behind. A wider discussion is needed of equity, inclusivity, and accessibility in

education, accompanied by a consideration of learners with disabilities and the reforms that are being proposed or implemented to address the diverse needs of digital users (such as universal design for learning) as a basis for deciding how even greater advantages might be capitalized upon and made available to all learners. Any increase in the use of learning platforms, remote learning, and blended learning calls for a serious consideration of data security, privacy, educational conditioning, classroom arrangement, and data governance. The main data stakeholders, the rights of the data subjects, and the responsibilities of the data controllers and processors need to be clearly understood. The possibilities already available to learners at the classroom and national level raise numerous concerns. Language policies that prioritize English or other languages other than the students' first language in instruction, assessment, and materials, together with the use of the same language for digital communication and learning support systems, can cause further abuse through an overdependency for control, a dependence that may also be aggravated by a lack of full coding coverage for the national language by either the educational or commercial sectors.

1. Digital Divide and Inclusivity

Digital technologies are now an integral part of teaching and learning across Europe. Nevertheless, part of the population still does not possess a minimum level of digital competence, and a stark divide exists regarding the ability to use technology in educational contexts. Therefore, the process of digital integration, where the use of digital technology, media, and environments becomes an integral part of teaching and learning, is still an ongoing challenge. Teacher education is an important setting to address digital competence and therefore, the integration of technology in education. Yet, the COVID-19 pandemic has demonstrated the potential of technology and the importance of systematizing its integration in teacher education and the overall educational system (Gabarda Méndez et al., 2022).

2. Privacy, Data Security, and Pedagogical Ethics

The integration of technology in English language teaching gives rise to significant ethical concerns surrounding privacy, data security, and pedagogical integrity. These concerns must be addressed to ensure that technology serves as a facilitator of learning rather than an obstacle to protected rights, autonomy, and academic freedom. Ethical issues commonly encountered in the context of technology-enhanced language teaching include the collection and processing of personally identifiable information, the sharing of user-generated content beyond institutional control, and the potential for learning analytics to be used for surveillance and social engineering.

In technology-enhanced learning environments, teachers frequently require users to create personal accounts to establish collaborative or participative roles in groups or networks (Borcea-Pfitzmann & Stange, 2007). This practice raises the expectation that the institutional entity requesting that information not only uses it for pre-defined pedagogical purposes, but shares transparently how and whether this information will be permanently retained, deleted, or modified within the selected technological space over time. As an extensive body of professional knowledge already exists on privacy awareness and security in everyday contexts (e.g., banking, digital media, etc.), institutions are encouraged to incorporate such principles into Technology-Enhanced Language Teaching frameworks and to focus specifically on the pedagogical implications of these principles in various educational environments and contextual realities.

Challenges and Barriers to Effective Adoption

Integrating Technology in English Language Teaching: Issues and Prospects Challenges and Barriers to Effective Adoption Integrating technology can be challenging due to several interconnected dimensions: the infrastructure required to support technology integration, the development and provision of opportunities for professional development, the management of change in teacher roles and classroom practices, and the scalability of technology integration solutions across teachers and institutions (Liang, 2021). Teachers are concerned that traditional classroom practices cannot be effectively changed and that learner factors such as motivation further hinder the adoption of new practices (Aisha Champa et al., 2021). For example, many teachers have no access to computer laboratories and technology-enhanced education resources. Insufficient access to a variety of hardware and software emerged as a critical external challenge. Even when suitable tools are available, teachers still find it difficult to use them to support learners who show a lack of motivation and willingness to learn. Considerable interdependence exists between external resources and internal conditions in the adoption of technology. Culturally responsive approaches and the localization of tools to suit specific contexts in highly diverse classrooms have been proposed as promising strategies for addressing challenges.

1. Infrastructure, Professional Development, and Change Management

Although educators acknowledge that technology can support students' learning in English language teaching (ELT), they often lack the technical proficiency to implement it effectively (Zhang, 2022). Professional development programs that focus on integrating technology into ELT can help instructors design and deliver more engaging lessons with better learning outcomes. Troublingly, even when training opportunities exist, teachers either receive insufficient or no support at all after initial workshops (Kirkwood & Price, 2006). Professional development initiatives should combine theoretical foundations of technology pedagogy with practical examples that teachers can adapt to their own contexts. Many language teachers have both limited technological know-how and minimal prior exposure to pedagogical theory related to teaching with technology. Support programs should therefore encourage teachers to investigate the pedagogical principles behind a range of practical options. Exploring how technology can help achieve

pedagogical aims fosters critical thinking and increases the likelihood of adopting new approaches. Guidance on selecting techniques is particularly useful when educators already want to incorporate additional exercises into their classes.

2. Cultural and Contextual Factors in Diverse Classrooms

The rapid spread of technology and technology-based resources has been accompanied by some detrimental consequences, such as a growing tendency to separate technology from its cultural, social, and contextual roots. This decoupling is particularly alarming in postcolonial countries, in relation to a phenomenon Randall (2007) defines as “technocentrism”—the indiscriminate adoption of machines, artifacts, or technologies associated with the so-called developed world without questioning the social, political, and economic implications of such adoption. Culturally sensitive approaches are therefore required to globalization, policy borrowing, and the appropriation of technology-based resources by academic institutions in such contexts (Sehlaoui, 2001). A regime of cross-cultural communicative competence rather than mass-mediated interaction, perhaps enhanced through local community-based exchanges, may thus be better suited to the needs of such contexts (Titiek Murniati & Sanjaya, 2017). The use of mass-mediated foreign-language materials should be accompanied by overt and conscious critical analysis; failure to do so may simply reinforce existing sources of alienation and distortion.

Prospects and Future Directions

As technology continues to evolve at a breathtaking tempo, it is essential to reconsider the prospects of technology-enhanced language teaching. Several trends are reshaping teaching practices, learners, and institutions, and it is important to understand how they impact English Language Teaching (ELT). New technologies often attract significant attention, but other elements are also exerting substantial influence (Beltrán-Palanques et al., 2017). Establishing a clear long-term vision is crucial in order to overcome the influence of fads and inappropriately scoped trends (BATTENBURG, 2013). The first trend reflects the nature of change itself and the degree to which improvement may be necessary. Rapid shifts in technology raise questions about the need to consider both proactive and reactive responses. An emerging paradigm prioritizes fostering learner agency, which emphasises developing the skills, knowledge, and dispositions to leverage emerging tools independently, regardless of specific instruments, platforms, or technologies that are prevalent or en vogue. High agency learning facilitates an adaptable and fluid integration of new tools, alongside deeper understanding of existing ones.

The rapidly evolving technology landscape gives rise to disruptive innovations that challenge conventional wisdom. Technology-enhanced pedagogical models and frameworks continue to dominate external conversations, but agencies are re-examining concerns about institutional technology design and management. Rather than maintaining compliance-centric frameworks to validate technology use, agencies are exploring vocalisation and agency-centric approaches that leverage the user-centrism traditionally embraced in software application design.

1. Emerging Trends and Innovative Practices

Technology is shaping the English language classroom across the globe. Trained by Input Technology, employees applied the tools to structure interactive classes targeted at specific language skills or mastery improvement. Staff tracked and adjusted student courseware based on formal assessments, programme completion, and tool practice volume. Teachers still encountered obstacles integrating the technology. Sentences are constantly present in English, simplified fundamentals, released ability to notice gaps between Help and Monitoring. Funding delays blocked progress joining a Worldwide Classroom with universities offering multimedia projects. Mobile Adoption introduced an iPad pilot, two devices acquired and student presentations redesigned for slide shows. Multimedia and modelling class covers obstacles in acquiring. Disturbance factor tracked through combinations of interruptions, indifferences, and contemporaneous distractions. Inconsistent centre build, some with higher surface and much low and moving periphery creating upward tendency. Constraints meeting design briefs remain constant, resource-filling barriers dominate. Personal neglect balances obstacles anticipated by Mulligan at writing stage. Classroom configuration encourages eighteen individual, conflicting kinect use, systems abroad appear flexible with more comm theory. Digital tools retain still lower version involving Help and Monitoring configurations; anticipated higher embed rate now perceived essential. Issues concern competent build variable while publish week, design concept explored—capturing teaching experience emerges complex over four years. Attempts arrange outline for dissemination to notice patterns of uncertainty persist—desire only one shot project closely expresses becoming agent teaching knowledge. Centre inspection released exhibition sharing experience, emphasis reduced preserving technical. Research requires technician only 10% time and centre condition yet 50%, returns flow returned adult coaching few only thanks automated process; including adult teaching feasible due equally preliminary contract format.

2. Policy Implications and Strategic Implementation

Rapid technology growth offers language educators new opportunities for integrating technology into English Language Teaching (ELT, defined here as education of the English language), promoting more engaging pedagogy. Yet many educators express concerns that such integration is not being realized effectively. The gulf between intentions and implementation suggests deeper and more complex issues ultimately limit effective integration in teaching–learning contexts. The structural examination of emergent issues surrounding the integration of technology into pedagogy and the implications for policy-level consideration and strategic implementation follows.

Although rapid technological innovation promotes interest in Language–Technology integration, few studies analyze the influence of these innovations on language pedagogy. Desirable teaching–learning outcomes, learner–teacher roles and responsibilities, and material-selection criteria differ across these approaches, reflecting contrasting views on how language should be taught and learned (Shulgina & M. Karim, 2018). Reflecting the broader disparity between intentions and realized integration, the introduction of technology has not reached the level of institutional support necessary to qualify as strategic nationwide initiatives (Dianti & Atmanegara, 2019).

Conclusion

The current framework articulates the rationale and significance of technology integration in English language teaching (ELT) while defining essential terms such as technology-enhanced language teaching (TELT), computer-assisted language learning (CALL), mobile-assisted language learning (MALL), open educational resources (OER), and artificial intelligence (AI) in education. The rationale highlights the profound impact of technology on society and its pivotal role in educational reform and innovation. Special attention is devoted to the use of information and communication technology (ICT) in ELT, a sector facing challenges in pedagogical implementation despite widespread ICT adoption, as evidenced by studies from Indonesia (Dianti & Atmanegara, 2019) and the Philippines (Titiek Murniati & Sanjaya, 2017). Integrating technology in language teaching continues to occupy a central position on the educational agenda, focusing not only on technology tools but also on sound pedagogical practices and their interplay. Prospective initiatives encompass government support, educational technology policy formulation, international partnerships, and research aimed at identifying emerging trends, innovative practices, and significant disruptors within the field. An expressive installation of options is maintained to provide clarity and context, considering the growing prominence of technology integration in ELT.

References

1. Dianti, R. & Atmanegara, Y. (2019). The Implementation of Ict-Integrated Elt Across Curriculum 2013 In Senior High Schools in Palembang. [PDF]
2. World English Journal, A., AbdelKarim Mousa Malkawi, N., Mohammad Abdullah Attiyat, N., Mohammad Hasan Ismael, F., Mohammad Hasan Ismael, A., & Ali Ibrahim Rababah, M. (2023). English Teachers' Use of Multiple Modalities. *osf.io*
3. Beltrán-Palanques, V., Garcia-Riaza, B., & Carmen Campoy Cubillo, M. (2017). From the Editors. Teaching with technology: integrating new technologies in the language skills. [PDF]
4. Titiek Murniati, C. & Sanjaya, R. (2017). Students as Producers: A Case Study of Technology-Based Projects. [PDF]
5. Shulgina, T. & M. Karim, A. (2018). Technological Innovation in English Teaching in Stand-Alone Private Language Institutions in Malaysia: Is It Adequate and Effective? [PDF]
6. Tayebinik, M. & Puteh, M. (2012). Mobile Learning to Support Teaching English as a Second Language. [PDF]
7. BATTENBURG, J. (2013). English Language Teaching with Web 2.0 and Faculty 2.0. [PDF]
8. Bergeron, S. & ベルジュロン, シルヴァン (2017). A Review and Assessment of Technology and Materials For English Language Teaching and Learning. [PDF]
9. SARIÇOBAN, A. & Yaşar KURUM, E. (2011). The Implementation Of Collaborative Web 2.0 Tools In Elt Classrooms. [Pdf]
10. R. Kshirsagar, P., B. V. Jagannadham, D., Alqahtani, H., Noorulhasan Naveed, Q., Islam, S., Thangamani, M., & Dejene, M. (2022). Human Intelligence Analysis through Perception of AI in Teaching and Learning. *ncbi.nlm.nih.gov*
11. Dong, Y., Yu, X., Alharbi, A., & Ahmad, S. (2022). AI-based production and application of English multimode online reading using multi-criteria decision support system. *ncbi.nlm.nih.gov*
12. Zhang, Y. (2022). Developing EFL Teachers' Technological Pedagogical Knowledge Through Practices in Virtual Platform. *ncbi.nlm.nih.gov*
13. Harris, J., Mishra, P., & J. Koehler, M. (2009). Teachersu27 Technological Pedagogical Knowledge and Learning Activity Types: Curriculum-Based Technology Integration Reframed. [PDF]
14. Suwartono, T. & Aniuranti, A. (2019). Digital Teaching Tools in 21st Century EFL Classroom: Are Our Teachers Ready? [PDF]
15. Németh, T. & Csongor, A. (2019). With Or Without You: The Use of Digital Tools in Teaching Languages for Specific Purposes. [Pdf]
16. Yu, X. (2022). The English as a Foreign Language Learners' Psychological and Emotional Perceptions on Technology Integration in Language Classrooms. *ncbi.nlm.nih.gov*
17. Ekara Helfaya, A. N. & O'Neill, J. (2018). Using Computer-Based Assessment and Feedback: Meeting the Needs of Digital Natives in the Digital Age. [PDF]
18. Russell Talukder, M. (2023). Smart Transformation of EFL Teaching and Learning Approaches. [PDF]
19. Faith Haggard Wellmann, C. (2012). An Exploratory Study of the Levels of Technology Implementation in the Teaching of Writing to Students in Diverse, Low-income High Schools in Texas. [PDF]



Journal of Research and Development

A Multidisciplinary International Level Referred and Double Blind Peer Reviewed, Open Access

ISSN : 2230-9578 | Website: <https://jrdrv.org> Volume-18, Issue-1| January - 2026

20. Gabarda Méndez, V., Marín Suelves, D., Gabarda Méndez, C., & Adrian Ramon-Llin Mas, J. (2022). Future teachers facing the use of technology for inclusion: A view from the digital competence. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
21. Borcea-Pfitzmann, K. & Stange, A. K. (2007). Privacy - an Issue for eLearning? A Trend Analysis Reflecting the Attitude of European eLearning Users. [PDF]
22. Liang, W. (2021). University teachers' technology integration in teaching English as a foreign language: evidence from a case study in mainland China. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
23. Aisha Champa, R., Rochsantiningih, D., & Kristiana, D. (2021). TEACHERS' CHALLENGES TO INTEGRATE ICT IN EFL TEACHING AND LEARNING ACTIVITIES. [PDF]
24. Zhang, W. (2022). The Role of Technology-Based Education and Teacher Professional Development in English as a Foreign Language Classes. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
25. Kirkwood, A. & Price, L. (2006). Adaptation for a Changing Environment: Developing learning and teaching with information and communication technologies. [PDF]
26. Sehlaoui, A. (2001). Developing cross-cultural communicative competence via computer-assisted language learning: The case of pre-service ESL/EFL teachers. [PDF]