



How Generative AI Can Help in Learning Languages: Benefits and Problems

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ABSTRACT

Artificial Intelligence (AI), a concept introduced by John McCarthy in 1956, has progressively emerged as a transformative force across diverse domains of human activity. Its applications range from diagnosing complex diseases using deep learning models to generating creative outputs in literature, music, and art. AI is also employed in producing immersive multimedia content, enhancing cyber security through facial recognition, monitoring environmental changes, improving workplace safety, advancing gaming technologies, and supporting global exploration efforts.

Within the field of education, AI is increasingly recognized for its potential to personalize learning, particularly in English language acquisition. By adapting instructional pathways, fostering learner engagement, and enhancing classroom interaction, AI tools are reshaping the ways educators design and deliver content. However, the adoption of AI-driven systems also raises significant challenges, including issues of data privacy, over-reliance on technology, and inherent algorithmic biases.

It evaluates the role of AI in enriching teaching strategies and its influence on students' learning outcomes, participation, and overall performance. In conclusion, the study offers evidence-based recommendations for harnessing AI responsibly, emphasizing the need to balance technological innovation with sound pedagogical practices to achieve sustainable and effective learning outcomes.



INTRODUCTION-

English has become the heart and soul of all over the globe, serving as a key medium of communication in all spheres may it be commerce, international trade, tourism, academic research, and intercultural interaction (Lan et al., 2020). With an estimated two billion learners across the world, it stands as the most studied foreign language, making proficiency in English an essential skill for professional growth, global mobility, and socio-economic opportunities (Rich, 2021).

Despite its importance, mastering English is often challenging for learners. Many struggle due to limited exposure to authentic English-speaking environments, lack of opportunities to practice in real-world contexts, and the difficulty of navigating linguistic and cultural differences. Additional hurdles include inadequate teaching resources, weak self-regulated learning habits (Renandya & Widodo, 2016), and anxiety about making mistakes or miscommunication. These persistent difficulties highlight the need for innovative instructional strategies that can build confidence, autonomy, and effective learning experiences.

Artificial Intelligence (AI) is increasingly viewed as a powerful solution to these challenges in English language teaching and learning (ELT/EFL). Modern AI applications—such as adaptive learning systems, intelligent tutoring platforms, natural language processing tools, and automated assessment technologies—offer new ways to improve language learning. By providing tailored learning pathways, instant feedback, and interactive experiences, AI enhances learner engagement, supports diverse needs, and improves accessibility in educational settings (Baranwal, 2022).

- The current day scenario aims to critically investigate how AI can be effectively pinned into English language teaching to maximize its benefits. It tries to research on the potential of AI-driven tools and approaches in helping learner motivation, bridging between teacher and ELT learners. At the same time, the study tries to investigate the ethical, pedagogical, and technological challenges of relying on AI in education.

As digital transformation accelerates in the educational sector, AI is shifting from being a futuristic concept to an active tool of practice. Understanding the concept of AI on English



language teaching plays a crucial role for educators, policymakers, and researchers who aim to balance technological innovation with modern pedagogy. This research paper contributes in reviewing and identifying gaps in practice and offering recommendations for advancing AI-enhanced language education.

2. Theoretical Framework

The increasing use of Artificial Intelligence (AI) in education highlights the pressing need to move beyond traditional board and book teaching methods so that the diverse and evolving expectations of learners in today's interconnected world can be met. Language learning, more than many other fields, calls for innovative strategies that address differences among learners, maintain their motivation, and create meaningful opportunities for communication. AI is viewed as a powerful catalyst for educational change, offering new options for personalized guidance, adaptive assessment, and flexible modes of content delivery.

AI's application in education can be traced back to the mid-20th century when computer-assisted instruction first appeared in the 1960s and 1970s. These initial experiments gradually advanced into intelligent tutoring systems (ITS), which aimed to customize teaching and provide targeted feedback. Later progress in adaptive learning algorithms, machine learning, and natural language processing (NLP) enabled AI technologies to go far beyond repetitive practice drills. Modern tools can now interpret learner responses in real time, deliver immediate support, and adapt materials to match individual progress. This historical pathway helps explain the current role of AI in shaping language education.

For English language learning specifically, AI contributes several advantages. Adaptive platforms can personalize instruction to align with students' proficiency, pace, and learning preferences, overcoming the constraints of uniform classroom teaching. Automated evaluation systems provide continuous, formative feedback that supports self-directed learning while easing the burden on teachers. Moreover, AI-powered tools such as gamified applications, conversational bots, and virtual simulations create opportunities for interactive and authentic communication practice, the use of AI as a resource makes English learning more engaging, inclusive, and learner-centred.

There are various challenges in adopting AI in English language classrooms, Concerns such as



biased decision-making by algorithms, safeguarding of student data, lack of sufficient teacher preparation, and the potential for excessive dependence on technology require careful consideration. In addition, AI tools will lack the human elements of teaching—such as empathy, cultural understanding, and critical interaction—which are vital for developing learner confidence and intercultural competence.

This study places the role of AI in English language education within the broader conversation on digital transformation in teaching. By examining its historical evolution, analysing contemporary applications, and evaluating its pedagogical implications, the paper provides a balanced framework for educators, researchers, and policymakers. Such an approach emphasizes the importance of adopting AI responsibly maximizing its benefits while maintaining the human-centred values that remain essential to meaningful education.

Benefits of AI Tools in Teaching and Learning English

The integration of Artificial Intelligence (AI) in English as a Foreign Language (EFL) classrooms provides multiple pedagogical, cognitive, and practical benefits that support both learners and educators. Central among these is the capacity of AI tools to deliver personalized and adaptive learning experiences. Unlike traditional approaches, AI-powered platforms can analyze learner data in real time, tracking progress, identifying strengths and weaknesses, and adjusting instructional content accordingly (Heffernan & Heffernan, 2014). This adaptability ensures that students receive instruction that is closely aligned with their individual learning trajectories, thereby improving efficiency and learner autonomy.

Another key advantage of AI is the provision of instantaneous and formative feedback. Tools such as automated writing evaluators, intelligent tutoring systems, and speech recognition software enable learners to monitor their proficiency and immediately address areas of difficulty (Li, Link, & Hergesheimer, 2015). By offering real-time feedback on grammar, pronunciation, and vocabulary use, these tools reinforce continuous learning and build learners' confidence in communication.

AI technologies also contribute to greater accessibility and inclusivity in language education. Mobile applications, adaptive online platforms, and AI-enabled catboats provide learners with flexible, on-demand opportunities to engage with English learning materials beyond classroom



boundaries (Zawacki-Richter et al., 2019). Such resources are especially valuable for learners in remote or resource-constrained contexts, helping to reduce educational inequities by making high-quality learning support more widely available.

Furthermore, AI tools can increase learner engagement and motivation through interactive, gamified environments. The integration of game-based mechanics, virtual reality (VR), and conversational agents transforms language practice into a more immersive and enjoyable experience, encouraging sustained participation and deeper learning (Godwin-Jones, 2019). These technologies also allow for simulated intercultural interactions, which are particularly important for preparing learners to communicate effectively in real-world, global contexts.

In addition to student benefits, AI tools provide significant support for teachers. By automating time-intensive tasks such as grading and assessment, AI allows educators to devote more attention to creative instructional design and individualized mentoring. Teachers can also draw on analytics generated by AI systems to make data-informed decisions about curriculum planning and student support, thereby strengthening overall instructional effectiveness.

Taken together, these benefits demonstrate the potential of AI tools to transform English language learning and teaching by fostering personalization, accessibility, engagement, and teacher efficiency. However, the realization of these benefits depends on thoughtful implementation, ongoing teacher training, and careful attention to ethical considerations such as data privacy and algorithmic fairness.

Challenges of AI Tools in Teaching and Learning English

While the integration of Artificial Intelligence (AI) in English language teaching offers considerable promise, its adoption is accompanied by several challenges that must be critically addressed. These challenges span pedagogical, technical, financial, and ethical dimensions, highlighting the need for cautious and informed implementation.

A primary concern relates to the irreplaceability of human teachers. Although AI tools can provide adaptive instruction, feedback, and data-driven insights, they cannot replicate the socio-emotional, cultural, and interpersonal dimensions of teaching that are central to language learning. The teacher's role in fostering critical thinking, intercultural awareness, and empathy



remains indispensable, underscoring that AI should serve as a complement rather than a substitute for educators (Hockly, 2023).

Another challenge lies in the accuracy and reliability of AI-generated content. Automated systems occasionally provide misleading or contextually inappropriate suggestions, particularly in grammar correction or translation tasks. Such errors risk creating confusion among learners and may undermine trust in digital tools if not monitored carefully (Li et al., 2015). This raises the need for ongoing teacher mediation and quality assurance.

The financial and infrastructural demands of AI integration also present significant obstacles. Effective implementation requires robust digital infrastructure, regular software updates, and sustained professional development for teachers. Many institutions, particularly in low-resource contexts, may lack the funding or expertise to integrate AI equitably, exacerbating the digital divide in education (UNESCO, 2019).

Equally important are the ethical concerns surrounding AI in language learning. Issues such as data privacy, surveillance, and algorithmic bias pose risks to fairness and inclusivity. Learners' personal data, when collected and analyzed by AI systems, must be safeguarded to prevent misuse. Additionally, biases embedded in training data may reinforce stereotypes or disadvantage non-native speakers, challenging the goal of equitable education (Florida & Cowls, 2019).

From a pedagogical perspective, the readiness of educators to adopt AI tools varies as some of the teachers may face resistance due to limited digital literacy, concerns about workload, or fear of being displaced by technology. Without adequate training and institutional support, the integration of AI may remain superficial, limiting its potential to transform teaching practices meaningfully.

Finally, while AI aligns with the broader vision of the UN Sustainable Development Goal (SDG) 4: Quality Education, its rapid development demands continuous evaluation. As UNESCO (2019) emphasizes, the use of AI in education must prioritize fairness, inclusivity, and human-centered values to ensure that technological innovation truly enhances, rather than undermines, the aims of education.



In sum, although AI has the potential to revolutionize English language teaching by enabling personalization, accessibility, and innovation, these benefits must be balanced against significant challenges. Addressing ethical risks, ensuring equitable access, and empowering teachers through training are critical to realizing AI's role as a supportive and sustainable partner in language education.

3. Methodology

This study adopts a systematic literature review approach to investigate the role of Artificial Intelligence (AI) in English language education. The primary aim is to critically examine how AI technologies are being integrated into English language teaching and learning, with a focus on their applications, benefits, challenges, and implications for both students and educators. By synthesizing current research, this review seeks to contribute to the growing body of scholarship on digital transformation in language education.

3.1 Research Aim and Objectives

The overarching aim of this review is to evaluate the impact of AI on English language education and to provide evidence-based insights for effective integration. The specific objectives are to:

1. Examine the current state of AI technologies in English language education, including their applications, pedagogical uses, and limitations.
2. Investigate the impact of AI on key language skills—speaking, listening, reading, and writing.
3. Assess the effectiveness of AI-driven platforms in delivering personalized and adaptive learning experiences for English language learners.
4. Identify the challenges and ethical considerations associated with AI in education, with particular attention to privacy, algorithmic bias, and equity.
5. Offer practical recommendations for educators, policymakers, and developers to maximize the pedagogical benefits of AI while mitigating associated risks.

3.2 Research Design

This review follows a qualitative integrative research design, combining both thematic synthesis and critical evaluation of existing literature. Sources were collected from peer-reviewed journals, books, and conference proceedings published between 2010 and 2024, with a particular emphasis

on recent studies reflecting the rapid evolution of AI technologies. Databases such as Scopus, Web of Science, Google Scholar, and ERIC were used to ensure comprehensive coverage.

3.3 Inclusion and Exclusion Criteria

- Inclusion criteria: Studies focused on the application of AI in English language teaching and learning (EFL/ESL), research that addresses AI in personalized/adaptive learning, feedback mechanisms, and assessment.
- Exclusion criteria: Articles not written in English, studies focusing on AI in education outside the scope of language learning, and opinion pieces lacking empirical or theoretical grounding.

3.4

Data

Analysis

The selected studies were analyzed using a thematic synthesis approach, categorizing findings into key themes: (a) AI applications in language education, (b) impact on learning outcomes, (c) benefits for students and teachers, (d) challenges and ethical concerns, and (e) implications for future practice. By systematically organizing and comparing results, the review ensures a balanced understanding of AI's role in English language education.

3.5

Contribution

of

the

Review

By synthesizing evidence across multiple studies, this review provides a comprehensive picture of how AI tools are shaping English language education. The methodology ensures that both the potential and limitations of AI are critically addressed, offering valuable insights for educators, researchers, policymakers, and technology developers. Ultimately, this review contributes to the advancement of English language pedagogy by identifying pathways for sustainable and equitable integration of AI into teaching and learning practices.

4. Results

Artificial Intelligence (AI) has emerged as a transformative force in English language education, offering innovative approaches to enhance learning effectiveness and bridge the limitations of traditional methods. The findings of this review highlight several key areas where AI has significantly influenced English language teaching and learning.



Firstly, AI demonstrates considerable potential in personalized learning. Unlike conventional approaches that often adopt a “one-size-fits-all” model, AI-driven systems can adapt to the learner’s pace, proficiency level, and preferred mode of learning. Tools such as intelligent tutoring systems and adaptive learning platforms allow students to receive targeted feedback, individualized study materials, and practice activities designed to meet their specific needs. This adaptability contributes to improved learner motivation and engagement.

Secondly, AI has proven effective in enhancing linguistic skills across speaking, listening, reading, and writing. For instance, natural language processing (NLP) tools provide immediate feedback on grammar, vocabulary usage, and sentence structure, allowing learners to self-correct and refine their writing skills. Similarly, speech recognition technologies support oral proficiency by evaluating pronunciation accuracy, fluency, and intonation. These technologies enable learners to practice communication in real time without constant dependence on human instructors.

Another important result concerns the automation of assessment and evaluation. AI-powered grading systems, plagiarism checkers, and adaptive testing tools ensure that evaluation is not only faster but also more consistent. This automation allows educators to focus on higher-order teaching tasks such as curriculum design and mentoring, while students benefit from timely, detailed, and objective feedback on their progress.

Furthermore, AI has facilitated the creation of immersive and interactive learning environments. Virtual classrooms, AI-driven chatbots, and simulation-based platforms provide students with authentic language contexts, fostering real-world communication skills. By simulating conversations and scenarios, AI encourages learners to apply language knowledge in practical, context-driven situations.

The integration of AI in language education also contributes to the promotion of autonomous learning. Students can independently explore authentic online resources, engage in self-paced learning modules, and receive instant corrections, which collectively support long-term skill retention and learner confidence. This self-directed approach reduces overreliance on traditional teacher-centered models and empowers learners to take ownership of their learning journey.

However, the results also underscore certain challenges and limitations. Despite its promise, AI



cannot fully replace the creativity, empathy, and cultural sensitivity that human teachers bring into language classrooms. Overdependence on AI may lead to standardized learning experiences that overlook contextual and cultural nuances of language use. Additionally, issues related to digital literacy, data privacy, algorithmic bias, and unequal access to technology remain critical barriers that must be addressed to ensure fair and equitable integration of AI into education.

Overall, the results of this review reveal that AI holds substantial potential to reshape English language teaching and learning. By offering personalized support, accelerating skill acquisition, and fostering autonomy, AI can complement and enhance traditional pedagogical methods. At the same time, its limitations call for careful integration, with educators playing a central role in guiding, contextualizing, and humanizing the use of AI in language classrooms.

5. Discussion / Concluding Remarks

The integration of Artificial Intelligence (AI) into English language education represents a significant shift from traditional pedagogical approaches towards more adaptive, interactive, and learner-centered practices. Findings from this review indicate that AI-driven tools—such as natural language processing (NLP) systems, chatbots, automated writing assistants, and speech recognition technologies—have demonstrated strong potential in enhancing the acquisition of key language skills, including speaking, listening, reading, and writing. By providing immediate feedback, personalized pathways, and interactive learning environments, AI offers opportunities to overcome limitations associated with conventional classroom-based learning.

A critical observation is that AI not only supports language skill development but also enhances learner motivation and autonomy. Digital platforms allow learners to engage in self-directed study, practice English outside the classroom, and receive real-time corrections. This fosters a more continuous and authentic learning process compared to traditional methods, where feedback is often delayed. AI-powered gamification and adaptive testing further strengthen learner engagement by transforming language learning into an interactive and rewarding process.

From the perspective of educators, AI contributes to reducing routine workloads such as grading, assessment, and content delivery, thereby enabling teachers to focus more on higher-level pedagogical tasks, such as fostering critical thinking, creativity, and cultural awareness. The ability of AI to generate personalized recommendations also supports differentiated instruction,



ensuring that learners with diverse needs and backgrounds are adequately supported.

Nevertheless, the discussion also highlights several challenges and limitations. While AI excels at pattern recognition and immediate feedback, it lacks the empathetic, humanistic, and cultural dimensions essential for language education. Over-reliance on AI risks reducing language learning to mechanical exercises, neglecting the social and intercultural aspects of communication. Ethical concerns—including data privacy, algorithmic bias, and unequal access to technology—pose further barriers to equitable implementation. Learners from underprivileged or rural contexts may not have the same opportunities to benefit from advanced AI tools, exacerbating existing educational inequalities.

Another concern is the teacher-student dynamic. AI should not be viewed as a replacement for teachers, but rather as a complementary tool. Teachers remain central to interpreting cultural nuances, fostering collaboration, and ensuring that AI-based recommendations align with pedagogical goals. Effective integration of AI therefore requires balanced adoption strategies that combine technological affordances with human expertise.

Looking forward, the advancement of AI in education calls for strategic institutional adoption. Policymakers, curriculum designers, and educational institutions must work collaboratively to establish frameworks for the responsible use of AI. Key priorities should include: ensuring equitable access to AI resources, embedding ethical guidelines, and providing training for educators to effectively integrate AI into teaching practices.

In conclusion, the findings of this review suggest that AI has the potential to transform English language education by providing personalized, efficient, and engaging learning experiences. However, its implementation must be carefully managed to mitigate risks and preserve the human-centered essence of education. By striking a balance between technological innovation and pedagogical sensitivity, AI can serve not as a substitute for traditional teaching but as a powerful ally in advancing language learning outcomes in the digital era.

6. Conclusion

The study reaffirms that Artificial Intelligence (AI) and digital technologies are no longer



supplementary but have become central to the evolution of English language education. AI-enabled tools, such as intelligent tutoring systems, chatbots, and automated assessment platforms, have demonstrated significant potential to improve learners' motivation, language proficiency, and overall engagement. They provide timely feedback, foster self-directed learning, and enable students to extend their practice beyond traditional classroom boundaries. At the same time, general technological resources—including smartphones, learning apps, and online platforms—remain essential facilitators of English language acquisition in the digital era.

However, the findings also highlight that student responses to AI-based tools are not uniform. While many embrace them enthusiastically, others remain cautious, signaling the need for personalized and adaptable AI solutions that cater to individual preferences and diverse learning contexts. Effective integration therefore demands thoughtful design, ensuring that technology enhances rather than overshadows human interaction, cultural context, and communicative competence.

Drawing from these conclusions, several key implications emerge. First, institutions should invest strategically in AI integration, not merely by adopting tools, but by embedding them within pedagogical frameworks that align with curriculum goals. Second, teacher training must become a priority: educators require not only technical competence but also pedagogical guidance on how to effectively balance AI with traditional methods. Without such preparation, there is a risk of over-reliance on technology, leading to reduced critical thinking, creativity, and intercultural sensitivity.

Third, policy makers and administrators should recognize and make certain rules for the ethical and social dimensions of AI adoption. Issues of data privacy, algorithmic bias, and unequal access to technology remain pressing challenges. Trainings of access to AI-driven learning opportunities should be considered a fundamental requirement to prevent widening educational inequalities, particularly in regions with limited infrastructure.

In conclusion, AI offers transformative opportunities for English language education by fostering personalized, engaging, and efficient learning environments. Yet, it is not a panacea. Its successful adoption requires a balanced, human-centred approach that leverages the strengths of AI while safeguarding the irreplaceable role of teachers in cultivating communication, cultural

awareness, and critical skills. With thoughtful implementation, AI can evolve from being a technological novelty into a powerful ally in shaping the future of English language teaching and learning.

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