HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

ENHANCING THE EFFECTIVENESS OF ENGLISH LANGUAGE TEACHING THROUGH THE USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES

Zarifova Mokhinoz Akbar kizi
English Language Teacher, Romitan District Technical School No. 3
doi:https://doi.org/10.5281/zenodo.22830355

Abstract. The rapid development of artificial intelligence (AI) has created new opportunities for improving English language teaching and learning. AI-powered chatbots, automated writing assessment systems, speech-recognition applications, adaptive learning platforms, and generative AI tools can provide learners with personalized practice, immediate feedback, interactive communication, and individualized learning support. This article examines the pedagogical potential of artificial intelligence technologies for improving the effectiveness of English language teaching, with particular attention to vocabulary, speaking, writing, listening, learner motivation, and autonomous learning. The study employs theoretical analysis, comparative analysis, synthesis of recent empirical research, and pedagogical modelling. Recent systematic reviews and meta-analyses indicate that AI-supported interventions can produce meaningful improvements in English language learning outcomes, although the effectiveness of AI varies according to the type of technology, learner characteristics, learning environment, assessment methods, and teacher involvement. The article argues that AI should not replace English language teachers but should function as a supportive pedagogical instrument within a human-centred instructional model. The proposed model integrates AI technologies with teacher guidance, communicative activities, formative assessment, learner reflection, and ethical principles. The study concludes that effective AI integration requires pedagogical purpose, teacher AI literacy, digital infrastructure, responsible data use, and continuous monitoring of learning outcomes.

Keywords: artificial intelligence, English language teaching, EFL, AI-assisted learning, ChatGPT, personalized learning, digital pedagogy, language skills.

Introduction. The rapid development of artificial intelligence has significantly influenced contemporary education. In English language teaching, AI technologies are increasingly being used to support language practice, assessment, communication, content generation, and personalized learning. Unlike traditional digital technologies, AI-based systems can process learner input, generate responses, identify patterns in performance, and provide adaptive feedback. These characteristics have created new possibilities for transforming English as a Foreign Language (EFL) education. The relevance of AI in English language teaching has increased particularly with the development of generative AI and conversational systems. Learners can use AI-powered tools to practise speaking, receive explanations of grammatical structures, generate writing ideas, obtain feedback on written texts, and simulate communicative situations. Teachers can also employ AI to develop lesson materials, formulate

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differentiated tasks, analyse learner performance, and provide additional learning resources. Recent empirical research provides increasing evidence of the potential value of AI in language education. A 2025 meta-analysis synthesizing 23 experimental and quasi-experimental studies reported a statistically significant overall effect of AI-supported interventions on EFL outcomes, particularly in areas such as writing accuracy, speaking fluency, and learner motivation. At the same time, the study found substantial heterogeneity across contexts and methodologies, indicating that AI effectiveness cannot be separated from the way technologies are pedagogically implemented. A broader 2025 multilevel meta-analysis covering 46 empirical studies and 117 effect sizes also reported a statistically significant medium-to-large overall effect of AI on language learning. The analysis examined five major language skills and indicated that implementation conditions, rather than the mere presence of a particular AI platform, are important determinants of effectiveness. It also suggested that AI is more appropriately understood as a supplement to teaching than as a replacement for teachers. Therefore, the central issue is no longer whether AI can be used in English language teaching, but how it can be integrated into pedagogically meaningful, ethical, inclusive, and learner-centred educational practices. UNESCO similarly emphasizes a human-centred approach to generative AI, highlighting issues such as data privacy, age appropriateness, ethical validation, and pedagogical design. The purpose of this article is to examine the pedagogical opportunities of AI technologies for improving the effectiveness of English language teaching and to propose an integrated model for their effective implementation.

Literature review. The relationship between technology and language learning has been investigated from different theoretical and pedagogical perspectives. Earlier computer-assisted language learning approaches focused primarily on providing learners with additional opportunities for practice. The development of AI has expanded these possibilities by introducing adaptive interaction, automated feedback, natural-language processing, and intelligent content generation. Recent research has increasingly focused on AI-supported EFL education. A 2026 systematic review analysed 708 publications on AI technologies and EFL learning and retained 103 studies for detailed analysis. The review found that research activity has increased considerably and that AI-powered chatbots and deep-learning technologies are among the most frequently investigated tools. The evidence particularly highlights applications in integrated language learning, writing, and speaking. Another systematic review published in 2026 examined empirical research on AI in English as a foreign and second language education from 2023 to 2025. It emphasizes the growing role of AI in language education while also pointing to the need for more systematic investigation of pedagogical conditions and implementation practices. The British Council's research on AI and English language teaching identifies three broad areas of AI application: learners can use AI for learning, teachers can use AI to support teaching activities such as assessment and material preparation, and administrative staff can use AI for educational management and learner data. From a pedagogical perspective, AI can support personalized learning. Traditional classroom instruction often requires teachers to work with groups of learners who differ in proficiency, motivation, learning speed, and preferred learning

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strategies. AI systems can potentially provide differentiated exercises and immediate feedback according to individual learner needs. However, AI-based learning also introduces challenges. Generative AI may produce inaccurate or inappropriate information, while excessive dependence on automated systems can reduce learners' independent cognitive engagement. Questions of academic integrity, privacy, algorithmic bias, unequal access, and AI literacy are also important. The British Council's human-centred framework therefore emphasizes pedagogy, teacher involvement, AI literacy, accessibility, ethical standards, and inclusion. Thus, the literature indicates that the effectiveness of AI does not depend solely on technological sophistication. Rather, it emerges from the interaction between technology, teacher expertise, learner characteristics, curriculum objectives, assessment, and learning environment.

Research methodology. The study employed a qualitative theoretical research design based on the analysis and synthesis of contemporary literature on artificial intelligence and English language teaching.

The following methods were used:

1. Theoretical analysis – to identify the pedagogical functions of AI in English language education.
2. Comparative analysis – to compare traditional and AI-supported approaches to language teaching.
3. Systematic synthesis – to generalize findings from recent empirical studies and systematic reviews.
4. Pedagogical modelling – to develop an integrated model for AI-supported English language teaching.
5. Content analysis – to identify the major areas in which AI technologies are applied to language learning.
6. Generalization – to formulate pedagogical recommendations for teachers and educational institutions.

The analysis focused on five major dimensions of English language learning: vocabulary, speaking, writing, listening, and reading. Learner motivation, autonomy, formative assessment, and teacher–learner interaction were also considered.

Results and discussion. Vocabulary acquisition is one of the areas in which AI can provide substantial individualized support. AI-powered applications can generate vocabulary exercises according to learner proficiency and provide contextual examples, definitions, synonyms, antonyms, pronunciation support, and personalized revision activities. Traditional vocabulary instruction may require teachers to prepare the same set of exercises for an entire group. AI-supported learning can provide differentiated tasks based on learners' performance. For example, learners who have difficulty with academic vocabulary can receive additional contextual exercises, while more advanced learners can work with collocations, idiomatic expressions, and discipline-specific terminology. Recent meta-

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analytic evidence indicates that vocabulary learning is among the language areas in which AI-supported interventions have demonstrated particularly strong effects.

AI-supported speaking development. Speaking is one of the most challenging components of EFL instruction because learners require frequent opportunities for meaningful communication. Classroom time, group size, and learner anxiety can limit individual speaking practice. AI conversational systems can create simulated communication environments. Learners can practise dialogues related to everyday situations, academic communication, professional contexts, travel, interviews, or presentations. Speech-recognition technologies can additionally provide pronunciation-related feedback. The pedagogical value of AI-supported speaking practice lies in its capacity to provide repeated opportunities for interaction. Learners can practise without waiting for a teacher or partner, repeat activities, and gradually increase task complexity. Recent research synthesis has reported improvements in speaking fluency among learners receiving AI-supported interventions, although the magnitude of effects varies across studies and contexts.

AI and academic writing. Writing is another major area in which AI can provide immediate formative support. AI systems can identify grammatical errors, suggest alternative formulations, provide vocabulary recommendations, and help learners organize ideas.

A pedagogically appropriate writing cycle may include:

Writing → AI feedback → learner analysis → revision → teacher feedback → final version.

This model is preferable to simply asking AI to produce a complete text for the learner. The primary educational goal should be the development of the learner's writing competence rather than the production of a finished text by the AI system. AI can therefore function as a feedback mechanism rather than a substitute for learner thinking. The teacher remains responsible for evaluating the quality, relevance, and educational appropriateness of the feedback.

AI-supported listening and reading. AI can also contribute to receptive language skills. Intelligent platforms can provide texts and listening materials at different proficiency levels and generate comprehension questions. Learners can receive vocabulary explanations and contextual information while working with authentic or adapted materials.

For example, an AI-supported reading task can include:

- pre-reading vocabulary;
- prediction questions;
- an adapted text;
- comprehension questions;
- vocabulary analysis;
- post-reading discussion.

Similarly, listening activities can be differentiated according to speed, vocabulary complexity, topic familiarity, and learner proficiency.

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Personalized learning. One of the most significant pedagogical advantages of AI is the possibility of personalization.

Traditional approach	AI-supported approach
Same task for most learners	Differentiated tasks
Delayed feedback	Immediate feedback
Limited individual practice	Extensive individualized practice
Teacher-centred monitoring	Teacher + AI-supported monitoring
Fixed learning pace	Adaptive learning pace
Limited conversational opportunities	Continuous simulated interaction

Personalization is particularly important in heterogeneous EFL classrooms. Learners with different proficiency levels can receive different levels of scaffolding while working toward the same learning objectives. However, personalization should not result in learner isolation. English is fundamentally a communicative subject, and interaction with teachers and peers remains essential.

AI and learner motivation. Motivation is another important dimension of AI-supported language learning. Interactive AI systems can provide immediate responses and create conversational environments that may make learning more engaging. A recent meta-analysis found positive affective effects associated with AI-supported EFL interventions, including improvements in motivation and engagement and reductions in language-learning anxiety in some contexts. Nevertheless, novelty alone cannot guarantee sustained motivation. If AI activities become repetitive or disconnected from meaningful communicative goals, their motivational value may decline. Therefore, teachers should integrate AI tasks with authentic communicative purposes.

Conclusion. Artificial intelligence technologies are creating significant opportunities for improving the effectiveness of English language teaching. AI-powered chatbots, adaptive learning platforms, automated feedback systems, speech-recognition applications, and generative AI tools can support personalized practice, immediate feedback, communication, and learner engagement. The analysis of recent empirical literature demonstrates that AI-supported approaches can contribute to the development of major English language skills, including vocabulary, speaking, writing, listening, and reading. Recent meta-analyses report statistically significant positive effects of AI-supported language learning, while also demonstrating substantial variation between studies. This variation indicates that the effectiveness of AI depends on pedagogical design, learner characteristics, learning environment, assessment methods, and teacher involvement rather than on technology alone. The study therefore proposes a human-centred model in which AI functions as a supportive instrument within teacher-guided instruction. The most productive approach is not the replacement of teachers by AI, but the integration of AI with communicative pedagogy, formative assessment, individualized learning, collaborative activities, and learner reflection. For effective implementation, educational institutions should prioritize teacher AI literacy, digital infrastructure, ethical standards, data protection, equitable access, and continuous evaluation of learning outcomes. Teachers should also teach learners how to

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critically evaluate AI-generated information rather than simply accept it. In conclusion, AI technologies can contribute substantially to the modernization of English language teaching when they are implemented according to clear pedagogical objectives and combined with human interaction. The future of AI-supported English language education should therefore be based on a balanced partnership between teacher expertise, learner agency, and intelligent technology.

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