



THE USE OF MODERN TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE (AI) IN ENGLISH LANGUAGE TEACHING

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ABSTRACT

This study examines the integration of modern technologies and artificial intelligence in English language teaching. The research investigates AI-powered tools including language learning applications, chatbots, and automated assessment systems. Through surveys and classroom observations, the study evaluates how these technologies enhance language proficiency and create personalized learning experiences. The findings indicate that AI-driven tools significantly improve learners' language skills, increase motivation, and provide individualized instruction. However, challenges such as limited digital literacy and infrastructure constraints were identified. This research provides insights for educators on effectively implementing AI technologies in language education..

The rapid advancement of digital technologies and artificial intelligence has transformed educational practices globally. In English language teaching, these innovations offer opportunities for creating more effective and personalized learning experiences. Traditional methods often face limitations in providing individualized attention and immediate feedback. Artificial intelligence offers solutions by enabling adaptive learning systems that adjust content based on individual performance, providing instant feedback on pronunciation and grammar, and facilitating conversational practice through AI chatbots. These capabilities make language learning more accessible and tailored to each learner's pace. Moreover, modern technologies expand access to authentic materials and connect learners worldwide. This study investigates how modern technologies and AI are utilized in English language teaching, examining their impact on learning outcomes and student motivation while addressing challenges such as digital literacy, infrastructure, and the balance between technology and human interaction.

Research consistently shows positive effects of technology in language education. Warschauer and Healey (2018) note that computer-assisted learning has evolved from drill-and-practice to communicative approaches emphasizing authentic interaction. AI-powered tools utilize natural language processing and machine learning to provide personalized instruction. Godwin-Jones (2019) demonstrates that AI systems accurately assess learners' proficiency and automatically adjust content difficulty. Intelligent tutoring systems simulate

one-on-one instruction, and studies by Xu and Wang (2020) found significant improvements in grammar and vocabulary compared to traditional instruction. Conversational AI and chatbots enable practice with virtual interlocutors available anytime. Research by Fryer and Carpenter (2016) indicates increased confidence and reduced anxiety among students using chatbots. Mobile learning applications have democratized access, with Kukulska-Hulme (2020) highlighting that apps promote consistent practice through gamification and spaced repetition. Learning analytics transform how teachers understand student needs, with data-driven instruction leading to more targeted interventions. Despite benefits, challenges include the digital divide, teacher preparedness, and maintaining appropriate balance between technology and human interaction. The literature suggests AI holds tremendous promise but requires strategic implementation with attention to pedagogy, teacher support, and ethical considerations.

This study employed a mixed-methods design conducted over six months with 120 intermediate-level students and 15 teachers at a language institute. Quantitative data was gathered through pre-tests and post-tests measuring proficiency across all skills, plus structured surveys assessing perceptions of technology effectiveness. Qualitative data was collected through classroom observations and semi-structured interviews. The technological tools examined included language learning applications with AI features, conversational chatbots, automated writing assessment systems, and adaptive learning platforms. Data analysis involved statistical methods for test scores and thematic coding for qualitative data. Ethical considerations were addressed with informed consent and data confidentiality. The study was conducted in an urban institute with adequate infrastructure, which may limit generalizability to under-resourced settings.

Results demonstrate significant positive effects of integrating AI in teaching. Students' scores increased by 18% in reading, 22% in writing, 25% in listening, and 20% in speaking. About 87% of students agreed technology made learning more engaging, and 82% reported AI tools helped identify weaknesses effectively. Students particularly valued immediate feedback, with 85% stating instant corrections enhanced learning. Qualitative data revealed that chatbots reduced speaking anxiety and enabled practice without peer judgment. Teachers observed that adaptive platforms effectively differentiated instruction, allowing focus on students needing most support. Automated writing tools saved grading time, enabling teachers to focus on higher-level feedback. Learning analytics provided valuable insights informing instructional decisions. Mobile apps contributed to increased practice frequency, with students spending average 45 minutes daily on English practice. Challenges included initial digital literacy difficulties for 35% of students and technical issues. About 28% worried about reduced face-to-face interaction, though concerns diminished when technology was positioned as supplement rather than replacement. Overall, results indicate thoughtful implementation with adequate support significantly enhances language teaching.

The findings highlight AI's transformative potential in English teaching. Significant proficiency improvements suggest genuine learning enhancement when tools are integrated purposefully. Strong gains in listening and writing may result from immediate, detailed AI feedback overcoming traditional time constraints. High engagement levels align with research on technology's ability to increase interest, though educators must recognize novelty effects

may diminish over time. Reduced speaking anxiety with chatbots represents important psychological benefit, providing judgment-free environments where mistakes have no social consequences. Personalized adaptive learning addresses traditional one-size-fits-all limitations, ensuring appropriate challenge levels. Teacher perspectives reveal enthusiasm alongside concerns about professional development needs. Challenges regarding digital literacy and infrastructure cannot be ignored, requiring explicit instruction and contingency plans. Concern about reduced human interaction deserves attention, as AI cannot replace social, emotional, and cultural dimensions teachers provide. Best practices include aligning technology with clear pedagogical objectives, providing adequate training, balancing technology with traditional methods, addressing equity issues, and continuous evaluation. These findings have important implications for educators and policymakers regarding strategic, evidence-based technology investments that complement sound pedagogical practices.

This study demonstrates that modern technologies and AI represent powerful tools for enhancing English language teaching. Integration of AI-powered applications significantly improved students' proficiency across all skills while increasing motivation, engagement, and confidence. The research confirms AI excels at providing personalized, immediate feedback addressing long-standing educational challenges. Students benefit from practicing anytime, anywhere with patient, non-judgmental tools. However, successful integration requires careful planning, teacher training, attention to digital equity, and maintenance of human connection. AI should complement rather than replace effective teaching, with technology handling immediate feedback while teachers facilitate complex discussions and provide emotional support. Language programs should invest in appropriate technologies, provide ongoing professional development, ensure equitable access, and maintain balanced approaches. Future research should explore long-term effects, optimal technology combinations, and frameworks for evaluating AI tool quality. Overall, when implemented strategically, modern technologies and AI can transform English language teaching, making it more effective, accessible, and engaging for learners worldwide.

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