Chapter 3
The Role of AI in Personalized English Language Learning

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ABSTRACT

This chapter explores the transformative role of artificial intelligence (AI) in English language education, focusing on its potential to personalize learning and enhance language acquisition. AI-powered tools have revolutionized traditional language learning models by offering individualized learning experiences that cater to the unique needs, strengths, and preferences of each student. Through intelligent tutoring systems, AI-driven chatbots, speech recognition technologies, and adaptive learning platforms, AI provides learners with real-time feedback, tailored exercises, and immersive environments for language practice. These advancements shift the traditional one-size-fits-all approach to a more student-centered model that promotes deeper engagement and improved proficiency. The chapter also examines the challenges and ethical considerations associated with AI in language education, such as bias in AI models, data privacy concerns, and the irreplaceable role of human teachers.

INTRODUCTION

The education system has been transformed by Artificial Intelligence (AI) because it creates novel approaches for students to learn through knowledge interactions. The development of linguistic proficiency through AI in education happens specifically by creating personalized instruction programs for each student based

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on their individual learning characteristics. The widespread desire to learn English has received significant benefit from artificial intelligence technology since these solutions provide custom-adjusted evaluations alongside immediate language aid features and automated teaching components. English language learning experiences a fundamental teaching transformation through AI integration which aims to improve learner engagement as well as motivation levels while enhancing their language learning results (Zavalevskyi et al., 2024). AI has improved schooling education processes through STEM teaching and professional education as well as creative fields of study. Language learning involves specific obstacles because students need to activate their brains while participating in social dialogues. Current AI technology powered by NLP and speech recognition and machine learning algorithms successfully addresses these issues through interactive teaching experiences. The application of artificial intelligence in language education allows intelligent tutors and chatbots together with voice assistants and adaptive learning platforms to develop flexible learning systems which produce virtual conversations while measuring language skills and delivering tailored feedback. Learning solutions developed through these innovations serve beginner through advanced learners to meet their individual language learning requirements (Songsiengchai et al., 2023). AI provides individualized teaching as its most vital contribution to English language education. Classroom learning methods for language education adopt standardized models which expect students to advance at equal rates although they differ in their development abilities and learning matters. The educational method proves inadequate for numerous students because it fails to meet their individual requirements for supplemental assistance and independent study rhythms. Many educational tools which use AI technology help students by studying their performance to understand their skills and develop custom-made instruction accordingly. The AI algorithms operating on Duolingo and Babbel platforms detect how users perform in lessons to make intelligent adjustments which help learners experience appropriate difficulties. This practice prevents them from becoming overwhelmed. The writing tools operated by AI technology including Grammarly supply customized feedback about syntax and grammatical elements and stylistic elements to assist users in developing their writing competencies (Zavalevskyi et al., 2024; Tariq, 2025).

English language education requires customized learning models because the variety of students continues to grow. English functions as the principal language of international communication since it serves as the universal franca while students possess various linguistic cultural and academic backgrounds. AI-powered tools with adaptation capabilities serve different learners by creating customized educational plans combined with multilingual accessibility and cultural-sensitive material. The analysis of native language performed by AI-driven platforms allows them to deliver specialized help which targets the standard linguistic obstacles that students face