

THE ROLE OF ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH TO MEDICAL STUDENTS

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Proficiency in English is essential for effective communication in the globalized medical environment, improving teamwork and patient outcomes [6]. In the contemporary era, which is characterized by the prevalence of global connections, the capacity to engage in cross-cultural interactions is becoming an increasingly crucial skill. [1; 214] Traditional methods of teaching English often fall short in addressing the unique linguistic needs of medical students [4; 139] This study examines the role of AI in bridging this gap. The application of AI in language learning can be supported by educational theories such as Constructivism, which emphasizes active learning and knowledge construction, and Connectivism, which focuses on learning in a technology-rich environment. These frameworks validate the use of AI tools that promote engagement and facilitate the acquisition of medical language skills.

Personalized Learning. AI-powered platforms such as Duolingo and Rosetta Stone use algorithms to analyze students' learning styles and progress. For medical students, these platforms can focus on specific terminologies and contextual vocabulary relevant to their fields. This allows for the creation of individualized learning paths that can adapt as students' progress [3; 110]. By providing tailored exercises and resources, AI helps maximize the learning process, ensuring that each student can work at their own pace and focus on their specific weaknesses.

Enhanced Assessment and Feedback. AI can facilitate continuous assessment through language learning applications that use algorithms to track progress over time. These tools offer immediate feedback, helping students quickly identify and correct language errors [5; 20]. Such assessments are particularly beneficial in medical language learning, where precise terminology and expressions are critical.

Development of Communication Skills. AI technologies, including chatbots and virtual reality (VR) simulations, enhance communication skills. Platforms like Woebot provide interactive practice, while VR simulations allow students to engage in realistic patient scenarios, applying medical vocabulary and demonstrating empathy. Evidence suggests that simulation-based learning improves clinical communication skills [8]. Furthermore, the use of chat bots like Replika offers students the opportunity to practice English conversation skills in a low-pressure environment.

Integration with Curriculum. AI can support educators in curriculum design and resource allocation. Learning analytics derived from AI help identify areas where students struggle, enabling targeted teaching strategies. Automating grading and administrative tasks allows educators to focus on mentorship and personalized student interactions [9; 162].

Challenges and Considerations. While AI offers numerous benefits, challenges such as accessibility, data privacy, and the need for trained educators must be addressed [2; 25]. The reliance on technology should not replace the critical human interaction necessary for developing empathy and understanding, which are vital in healthcare. It is crucial to address ethical issues related to AI in education, such as data security and bias in AI algorithms. Institutions should ensure transparency in AI systems and prioritize student privacy.

Conclusion

The integration of AI in teaching English to medical students provides innovative solutions for enhancing language proficiency and communication skills. Personalized learning experiences and realistic simulations significantly improve the readiness of medical graduates for the diverse healthcare environment. Continuous research is necessary to assess the long-term impacts of AI on language learning outcomes and its integration into medical curricula. Future studies should examine the long-term effects of AI-assisted language learning on healthcare professionals' communication abilities, patient outcomes, and the optimization of AI tools within medical

education frameworks. Collaboration between linguists, educators, and AI developers will be key in fostering effective solutions tailored for medical training.

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