THE ROLE OF ARTIFICIAL INTELLIGENCE IN IMPROVING MEDICAL STUDENTS' ENGLISH SPEAKING SKILLS

Xamidova S.N.
Impuls tibbiyot instituti Chirchiq filiali Ijtimoiy-gumanitar fanlar kafedrasi o'qituvchisi
sadoqatxamidova7@gmail.com

Abstract: In the era of globalization, English has become the dominant language of international medical communication, research publications, and academic collaboration. Medical students are expected to possess not only professional medical knowledge but also strong communication skills in English. Effective speaking skills are particularly important for participating in international conferences, understanding medical literature, and communicating with colleagues and patients from different countries. However, many medical students face challenges in developing speaking proficiency due to limited opportunities for real-life communication, lack of confidence, and traditional teacher-centered teaching methods. In recent years, technological advancements have introduced new approaches to language learning, among which artificial intelligence (AI) has gained significant attention.

Keywords: artificial intelligence, medical education, English speaking skills, language learning, medical students.

This study was conducted among first-year medical students at a medical institute. A total of 20 students participated in the research. The participants were divided into two groups: an experimental group and a control group.The experimental group used AI-based language learning tools such as speech recognition applications, AI chatbots, and interactive speaking platforms during their English language classes. These tools allowed students to practice pronunciation, engage in simulated conversations, and receive immediate feedback on their performance.The control group continued learning through traditional teaching methods, including classroom discussions, textbook exercises, and teacher-led speaking activities. The research lasted for eight weeks. Pre-tests and post-tests were conducted to evaluate students' speaking fluency, pronunciation accuracy, vocabulary usage, and confidence in communication.The results of the study demonstrated that students in the experimental group showed greater improvement in their speaking skills compared to the control group. The use of AI-based learning tools significantly increased students' engagement and motivation during the learning process.Students who practiced speaking with AI technologies improved their pronunciation accuracy and fluency due to the instant feedback provided by speech recognition systems. Additionally, AI chatbots enabled learners to practice conversations in a low-stress environment, which helped reduce speaking anxiety and encouraged more frequent practice.The findings also indicate that AI technologies provide personalized learning opportunities. Each student can practice at their own pace and receive individualized feedback, which contributes to more effective language acquisition. These results confirm that integrating modern technologies into language education can support the development of essential communication skills among medical students.

In conclusion, artificial intelligence technologies can play a significant role in enhancing English speaking skills among medical students. AI-based learning tools create interactive and flexible learning environments that support students' motivation, confidence, and communication abilities.The integration of AI in medical education can help future healthcare professionals develop the language skills necessary for international collaboration, research participation, and effective patient communication. Therefore, educational institutions should consider incorporating

AI-based language learning tools into their English language curricula to improve the overall quality of medical education.

References

1. Cui, W., & Zhang, J. (2025). Artificial intelligence in language learning: Improving speaking fluency and pronunciation through speech recognition technology. Interactive Learning Environments.
2. Ding, D., & Yusof, A. (2025). The impact of AI-powered conversational agents on second language speaking performance and anxiety reduction. Humanities and Social Sciences Communications.
3. Qiao, H., & Zhao, A. (2023). Artificial intelligence-based language learning and its impact on students' speaking performance in higher education. Frontiers in Psychology.
4. Kuswiyanti, T., Hidantikarnillah, V., Rosfiani, O., & Adiyan, F. (2023). Using artificial intelligence to enhance speaking skills among university students. Proceedings of the Educational and Educational Innovation Conference.