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ENHANCING SPEAKING SKILLS OF MEDICAL STUDENTS THROUGH AI TOOLS: AN ESP-BASED APPROACH IN UZBEKISTAN

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Juraeva Maftuna Komilovna
Toshkent Davlat Tibbiyot Universiteti
O'qituvchisi
e-mail: maftunakomilovnajurayeva@gmail.com

Annotation (English)

This article delves into the role of Artificial Intelligence (AI) tools in the development of speaking skills among medical students in Uzbekistan in the context of English for Specific Purposes (ESP). The study targets students of A2-B2 level at Tashkent State Medical University, and aims at the role of using AI-based tools, like ChatGPT to improve students' speaking fluency, confidence, self-directedness and ability to communicate in medicine. The article discusses theoretical foundations, practical classroom applications, benefits, and challenges of AI integration in ESP instruction. The results indicate that AI generates learner-friendly and stress-free learning environments that have a positive effect on students' speaking performance and motivation.

Keywords

Artificial Intelligence, ESP, medical English, speaking skills, AI-assisted learning, learner autonomy, Uzbekistan.

Аннотация (Русский)

Данная статья рассматривает роль инструментов искусственного интеллекта (AI) в развитии навыков говорения у студентов-медиков в Узбекистане в рамках English for Specific Purposes (ESP). Исследование сосредоточено на студентах уровней A2–B2 Tashkent State Medical University и анализирует, как AI-инструменты, такие как ChatGPT, способствуют развитию беглости речи, уверенности, автономности обучающихся и профессиональной медицинской коммуникации. В статье рассматриваются теоретические основы, практическое применение AI в аудитории, преимущества и проблемы интеграции технологий в ESP-обучение. Результаты показывают, что AI создает интерактивную и комфортную среду обучения, положительно влияющую на мотивацию и развитие разговорных навыков студентов.

Ключевые слова

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Искусственный интеллект, ESP, медицинский английский, навыки говорения, AI в обучении, автономное обучение, Узбекистан.

Annotatsiya (O‘zbekcha)

Mazkur maqola O‘zbekistondagi tibbiyot talabalari orasida gapirish ko‘nikmalarini rivojlantirishda sun’iy intellekt (AI) vositalarining rolini ESP (English for Specific Purposes) doirasida o‘rganadi. Tadqiqot Tashkent State Medical University dagi A2–B2 darajadagi talabalar misolida olib borilgan bo‘lib, ChatGPT kabi AI vositalari og‘zaki nutq ravonligi, ishonch, mustaqil o‘rganish va tibbiy kommunikatsiya ko‘nikmalarini qanday rivojlantirishini tahlil qiladi. Maqolada nazariy asoslar, amaliy dars faoliyatlari, AI integratsiyasining afzalliklari va muammolari yoritilgan. Natijalar AI vositalari talabalar uchun interaktiv va stresssiz o‘quv muhitini yaratishini ko‘rsatadi.

Kalit so‘zlar

Sun’iy intellekt, ESP, tibbiy ingliz tili, gapirish ko‘nikmalari, AI yordamida ta’lim, mustaqil o‘rganish, O‘zbekiston.

Introduction

English is now the main language of international communication, science and medicine in the 21st century. The demand for English language skills to communicate with patients from abroad, attend international conferences and read medical literature is growing in demand amongst medical professionals. As a result, English for Medical Purposes (EMP) is a part of English for Specific Purposes (ESP) that has become indispensable in medical training.

Despite years of English language instruction, many medical students continue to face difficulties in speaking fluently and confidently. Students are frequently afraid of mistakes, have restricted vocabulary, and do not have enough chances to engage in authentic communication. In Uzbekistan, these challenges are especially noticeable among A2–B2 level learners studying in medical universities.

New technologies such as Artificial Intelligence (AI) have emerged recently, creating exciting new possibilities for language learning. AI-powered tools such as ChatGPT, speech recognition systems, and intelligent chatbots provide learners with interactive speaking environments and immediate feedback. Experts say that AI has the potential to greatly enhance the fluency, pronunciation, and eagerness to communicate.

This article explores how AI tools can enhance speaking skills among medical students in Uzbekistan within an ESP framework.

Literature Review

AI has recently received a lot of attention in the field of language teaching. The ability to support individualized learning, boost learner autonomy and set up a low-anxiety speaking environment are highlight points of AI technologies, which many researchers stress.

In ESP classrooms, AI tools are being leveraged to address "the diverse needs of learners" and to improve learning outcomes, says Mariana Boeru. In addition, Fathi, Rahimi, and Derakhshan discovered that the use of AI-mediated interactions had a positive influence on the speaking abilities and willingness to communicate among learners.

Similarly, research in Language Testing in Asia found that AI-supported oral activities significantly enhanced the students' speaking skills, psychological state and learner autonomy.

In ESP, simulation learning is particularly significant since the students need to learn how to communicate in the contexts of the professions. The opportunity to practice doctor–patient interactions, clinical discussions and case presentations is important for medical students, for instance.

Another recent study indicates that AI tools are especially beneficial for speaking practice, as they offer instant feedback and adaptability in learning.

There are also some drawbacks, however, raised by the researchers. Issues of over-reliance on AI, decrease in human interaction, and ethics are still relevant in the context of AI in education.

Theoretical Framework

This study is based on three important educational approaches.

Communicative Language Teaching (CLT)

Communicative Language Teaching focuses on communication and life-like interaction. The learner needs to communicate effectively in realistic professional contexts, e.g., during patient interviews and consultations.

English for specific purposes (ESP)

ESP is based on the language learning needs of students in the context of their academic and professional goals. Medical English is a special type of English that is used for specific purposes related to the medical field, and involves more complex vocabulary, context-specific communication skills, and interaction.

Sociocultural Theory

Vygotsky's Sociocultural Theory emphasises on interaction in learning. AI tools can act as interactive learning partners, where students can practice their communication skills in supportive environments.

AI Tools in Medical English Classrooms

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AI technologies can contribute to the development of medical students' knowledge and skills in various ways.

Doctor-Patient Role Play

One successful classroom activity that uses AI is role play. During the activity, students take on the role of doctors, and the AI takes the role of the patient.

For example:

- ✓ "*What symptoms do you have?*"
- ✓ "*How long have you experienced this pain?*"
- ✓ "*Do you have any allergies?*"

Activities like this aid learners in enhancing speaking proficiency, questioning skills and medical vocabulary.

Case-Based Discussions

AI may be used to provide students with case-based scenarios for analysis and discussion. The students explain diagnoses, treatments, and recommendations. In this manner, speaking fluency and critical thinking may be developed.

Pronunciation and Feedback

Speech-recognition tools are available which provide correction on pronunciation and grammar. The students are given suggestions immediately and have opportunities to try speaking the improved responses. According to researchers, speaking in an AI-mediated environment enhances students' self-confidence by reducing their fear of making mistakes.

Benefits of AI in ESP Medical Education

AI integration offers several advantages.

Firstly, AI generates low anxiety conditions. Students will feel at ease to speak using AI tools since there will not be any pressure for students to be worried about being critiqued, nor being made a fool of by peers and teachers, while learning.

Secondly, AI contributes to autonomy. Students can learn without being guided by instructors and obtain individualized feedback while working independently.

Thirdly, AI enables the learning is available at any time and any place. Lastly, AI is able to facilitate the learning with simulation. This learning strategy is particularly important for medical education since practice through simulation enables the students gain the skills for actual communication.

As indicated by a latest study, AI-mediated tasks were “more effective than their teacher or peer interaction in boosting speaking proficiency”.

Potential Challenges and Limitations

While the introduction of AI into education has numerous advantages, it also comes with its share of obstacles. An issue could be over-reliance. Students might

grow dependent on the readily available answers given by AI and may not be thinking for themselves. It's difficult to replicate emotion and human connection. AI programs can engage in conversation, but it cannot replace teacher instruction or human interaction. Finally, some educators face issues with technology failures and access to devices among the students. AI must be viewed as a tool, not a replacement for teachers.

Implications for Uzbekistan

The introduction of AI tools into Uzbek higher education can enhance modernization of language learning. In medical universities of Uzbekistan, the necessity of English knowledge for future medical personnel is of great importance. AI tools can serve as an additional method in solving the issues like lack of opportunity to practice speaking, large classes, minimal authentic input of target language. Besides that, the adoption of AI technologies is in keeping with modern trends in teaching such as digitalization and innovation process in higher education. Teacher training courses should be implemented and aimed at developing the skills of using AI effectively in ESP classes. Additionally, curriculum designers should consider including digital communication tasks and AI supported activities in medical English curriculum.

Conclusion

As we have established, Artificial Intelligence is an increasingly dominant feature in modern language education, and not least within ESP. Indeed, the interactive, adaptive and assistant features of AI tools like ChatGPT can offer a valuable supplement to the learning environment of the speaking classroom for medical students. This paper has illustrated that by embedding AI in the ESP class, speaking fluency, learner confidence, medical terminology acquisition and communication skills were all fostered. It must be stressed, however, that thoughtful lesson planning is necessary in order to achieve an appropriate level of teacher direction and a balance between use of technology and human instruction. In the context of Uzbekistan, AI tools represent an exciting prospect for enhancing medical English training for the upcoming generations of health professionals

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