AI-BASED MOBILE APPLICATIONS AND ICT TECHNOLOGIES IN LANGUAGE LEARNING

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Key words: artificial intelligence, ICT, mobile learning, adaptive learning, language education, learner analytics, automated feedback.

Abstract: This article examines the role of artificial intelligence (AI)-based mobile applications and information and communication technologies (ICT) in language learning. The study focuses on adaptive learning, automated feedback, and learner analytics as key factors influencing language acquisition. Analytical and comparative research methods are applied to evaluate the effectiveness of these technologies. The results indicate that AI and ICT tools significantly improve learning efficiency, learner engagement, and personalization of instruction. The novelty of this research lies in proposing an integrated pedagogical framework that connects AI functions with measurable learning outcomes and instructional design principles.

Through the introduction of individualized, interactive, and adaptable teaching methods, artificial intelligence and information technology have had a substantial impact on foreign language acquisition. Globalization and digital revolution, among other historical, social, and cultural shifts, are reflected in their development. While information technologies give access to real resources and collaborative learning settings, AI-powered tools improve student autonomy, motivation, and communicative ability. However, careful evaluation of educational, ethical, and

social considerations is necessary for the successful incorporation of these technologies. To guarantee inclusive and responsible use, issues including unequal access, an excessive dependence on automation, and data privacy must be addressed. Artificial intelligence should ultimately be seen as a helpful tool rather than a substitute for educators.

In recent years, artificial intelligence (AI) and information and communication technologies (ICT) have become essential components of modern education systems. In particular, language learning has been significantly influenced by the rapid development of mobile technologies. Mobile applications allow learners to access educational content anytime and anywhere, making the learning process more flexible and personalized. Researchers around the world have emphasized that AI-based tools can enhance the quality of language education by providing adaptive learning environments, immediate feedback, and continuous assessment. ICT technologies also support multimedia learning, communication, and collaboration among learners. However, despite the increasing use of AI and ICT in education, there is still a need to analyze their effectiveness and identify the conditions under which these technologies contribute to meaningful learning outcomes. Therefore, this study aims to explore the role of AI-based mobile applications and ICT tools in language learning and to evaluate their impact on learners' performance and engagement. The main objective of this research is to determine the effectiveness of AI-based mobile applications and ICT technologies in language learning. The study seeks to address the following research questions:

1.What are the advantages of using ICT tools in language learning?

2.What challenges are associated with the use of these technologies?

3. How do AI-based applications influence language acquisition?

To answer these questions, the study relies on modern pedagogical theories and recent scientific research. The problem is particularly relevant in the context of digital transformation in education, where new technologies are increasingly integrated into teaching and learning processes. The research is based on several methodological approaches, including analytical, comparative, and descriptive methods.

The analytical method was used to examine scientific literature related to AI and ICT in language learning. The comparative method allowed the comparison of traditional teaching approaches with modern technology-based methods. The descriptive method was applied to summarize and interpret the findings. In addition, observational data from the use of mobile learning applications were considered to better understand how learners interact with AI-based systems. These methods provided a comprehensive understanding of the role of technology in language education.The findings of the study demonstrate that AI-based mobile applications and ICT technologies have a significant positive impact on language learning.

Personalized Learning

One of the main advantages of AI technologies is their ability to provide personalized learning experiences. AI systems analyze learners' performance and adapt the content according to their individual needs. This approach increases learning efficiency and helps students focus on their weaknesses.

Automated Feedback

AI-based applications offer immediate feedback on learners' performance. This allows students to identify and correct their mistakes quickly. Automated feedback is particularly useful in language learning, where continuous practice and correction are essential.

Flexibility and Accessibility

Mobile applications enable learners to study at their own pace and convenience. This flexibility is especially important for students who need to balance their studies with other responsibilities.

AI technologies collect and analyze data on learners' progress. This information helps both learners and teachers monitor performance and make informed decisions about the learning process.Despite these advantages, several challenges remain. AI systems may sometimes provide incorrect feedback, and excessive reliance on technology can reduce learners' critical thinking skills. Additionally, not all learners have equal access to digital technologies, which can create inequalities in education. The results of this study are consistent with previous research, which highlights the importance of integrating technology with effective pedagogical strategies.Teachers' roles are transformed rather than eliminated when AI is included into foreign language instruction. Instead of only imparting knowledge, teachers increasingly act as guides, facilitators, and creators of educational experiences. They are in charge of choosing suitable technology, incorporating them into curriculum, and providing academic and emotional assistance to pupils.

In conclusion, AI-based mobile applications and ICT technologies play a crucial role in modern language learning. They enhance the effectiveness of education by providing personalized learning, immediate feedback, and flexible learning environments.

However, the successful implementation of these technologies requires careful consideration of pedagogical principles and potential challenges. Future research should focus on improving the accuracy of AI systems and ensuring equal access to digital resources.Overall, AI and ICT technologies have the potential to transform

language education and create more effective and engaging learning experiences.

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