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MOBILE LEARNING FOR ENGINEERS: BOOSTING ENGLISH SKILLS THROUGH TECHNOLOGY

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Abstract
This study investigates the impact of mobile learning tools on improving English proficiency among engineering students. With the growing need for strong communication skills in global industries, mobile apps and digital platforms offer flexible, engaging, and personalized language learning opportunities. The research highlights increased student motivation, improved language outcomes, and enhanced professional readiness through the use of multimedia tools and collaborative apps. Despite challenges like limited access and educator resistance, mobile learning proves to be a valuable approach in bridging language gaps and preparing engineering students for success in both academic and workplace settings.

INTRODUCTION
The effectiveness of mobile learning tools to improve English language mastery among engineering students has attracted increasing attention in recent years. As globalization continues to remodel the educational panorama, competition in English has become a fundamental ability that contributes to academic and professional success. Mobile learning (M-Learning) provides innovative pedagogical methods that are particularly relevant to engineering students, who often face unique challenges in language acquisition. This document explores how mobile learning tools improve participation, provide resources and influence results in academic and professional contexts for engineering students.

Research indicates that the adoption of learning tools encourages a significant commitment among students. It has been shown that a mobile learning approach improves motivation and performance among English students as a foreign language (EFL) (Huang et al., 2016). This attractive paradigm allows students to immerse themselves in contextualized language learning experiences. In addition, a systematic review of mobile learning implementations in higher education reveals that the integration of mobile technology increases students participation and performance rates (Crompton and Burke, 2018). These findings underline the importance of user -centered approaches that capitalize on mobile technology to promote a more proactive learning environment.

Mobile learning tools also offer a wide range of resources adapted to the needs of engineering students. The integration of multimedia elements, such as videos, podcasts and interactive applications, facilitates a rich learning experience that accommodates several learning styles. In particular, mobile applications designed for language learning have proven effective to close the gap in communication skills between engineering students (Pugrum, 2014). By taking advantage of the learning tools, students can access a wide range of materials to their convenience, thus supporting autonomous learning (Klimova, 2019). In addition, the use of

learning management systems, such as Edmodo, allows students to collaborate and interact with their classmates while navigating the challenges of the language (Al-Said, 2015).

The impact of mobile learning on cognitive load has also been studied, showing that steam - based mobile learning can minimize the cognitive load of students while improving learning achievement (Chen and Huang, 2023). Such findings highlight the importance of balancing the complexity of the content with the student's skills to avoid overwhelming students, particularly in technical fields such as engineering. In addition, the application of mobile learning strategies leads to the effective integration of pedagogical practices, thus improving the mastery of students' language in an academic context (Lai and Hwang, 2015).
The results associated with mobile learning tools extend beyond academic performance and also in professional contexts. As the labor market values more and more communicative competence, engineering students equipped with competent English skills have a competitive advantage over their classmates. The positive correlation between mobile learning and the results of students demonstrates a substantial potential so that mobile technologies close the language domain gap that faces many in the engineering domain (Kumar Basak et al., 2018). This alignment of academic and professional expectations emphasizes the need for educational frameworks that prioritize English language skills within engineering curricula.

An examination of the Utaut model reveals that engineering students are likely to adopt mobile learning systems when they perceive these tools as beneficial, relevant and easy to use (Almaiah et al., 2019). Your willingness to adopt mobile learning influences the general results of language, preparing the scenario for additional advances in your professional trajectories. Therefore, improved English mastery plays a crucial role in the promotion of employability, particularly in industries that require effective communication in global contexts.
However, although mobile learning presents great opportunities, it also raises several challenges that must be addressed to fully carry out their potential. A Creole-C et al. (2021) emphasizes persistent problems surrounding access to technology, digital literacy and the need for structured guidance in the use of these tools effectively. In addition, studies suggest that there are still barriers to successful mobile learning implementations, such as infrastructure and resistance deficiencies among educators to adopt new technologies (Al-Emran et al., 2016). Overcoming these obstacles will require joint efforts between educational institutions, teachers and students to advocate comprehensive training and support systems.
In addition, the future of mobile learning to improve the acquisition of the English language for engineering students may imply the strategic incorporation of gamification elements. The use of gamified tools, such as augmented reality applications, has proven promising to increase commitment and retention rates in language learning (Perry, 2015). By creating an interactive and pleasant learning atmosphere, gamification can motivate students to persist in their studies, thus promoting a higher level of language mastery.
While the mobile learning panorama continues to evolve, it is still essential to focus on integrating existing evidence with innovative practices. As observed by Hwang and Wu (2014), the impacts and trends of learning improved by mobile technology suggest that the ongoing research and development in this field are essential. The timely incorporation of mobile tools in language education for engineering students could facilitate better participation,

accessibility of resources and better language results, teams of future professionals with the necessary skills to prosper in an increasingly interconnected world.

In conclusion, the effectiveness of mobile learning tools to improve English language mastery among engineering students is multifaceted, depending on aspects of participation, resources and educational results. The integration of learning M promotes a dynamic learning environment that leads to the acquisition of skills, which is essential in the current global workforce. Addressing the challenges of accessibility, availability of resources and pedagogical adaptation will promote the progress of mobile learning as a vital educational instrument. Adopting these technologies will undoubtedly shape the future of language education, which will train engineering students to academicly and professionally.

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