


Chapter 1


Utilizing AI in Learning English Vocabulary among EFL Omani Students: The Relationship of Academic Performance and English Proficiency

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ABSTRACT

This study investigates the impact of AI-integrated vocabulary learning on EFL Omani students, focusing on their academic performance and English proficiency. A quantitative approach was employed, employing data collection through a survey distributed to 500 students, with 236 valid responses analysed. SPSS version 26 was used in the analysis. The findings revealed that EFL Omani students generally perceive AI tools as beneficial for vocabulary acquisition and learning, with higher proficiency and academically stronger students demonstrating greater trust, ease of

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use, and motivation to engage with AI-driven learning. However, lower-proficiency students and those with weaker academic performance reported more challenges in using AI tools and exhibited lower trust in AI-generated vocabulary recommendations. Though general trends indicate a positive correlation between proficiency level and AI learning effectiveness, statistical analyses showed no significant impact of academic performance on AI-assisted vocabulary acquisition.

INTRODUCTION

Advancements in mobile technology and artificial intelligence have opened limitless possibilities for overcoming communication barriers (Moxon, 2024; Rusmiyanto, Huriati, Fitriani, Tyas, Rofi'i, & Sari, 2023). In other words, technological progress has significantly impacted various fields, particularly English Language Teaching (ELT), because of the essential role technology plays in education (Keerthiwansa, 2018; Rao, 2019). Research findings indicate that technology-based language acquisition and learning surpass traditional methods, demonstrating a substantial and meaningful impact on language learning processes (Attamimi, 2025; Eragamreddy, 2025; Fajaruddin, Retnawati, Setiawan, Apino, Arlinwibowo, & Rachman, 2024; Jomaa, Attamimi, & Al Mahri, 2024, 2025; Jomaa, 2025; Kheder, 2025). However, learning a foreign language remains challenging for learners, primarily due to their limited vocabulary (Jomaa, Attamimi, & Alghafri, 2025; Oktadela, Elida, & Ismail, 2023). As a result, mobile technologies, particularly communication and language applications, have drawn the interest of researchers (Hasan, Fakhri, Seraj, & Hasmirati, 2022). For instance, WhatsApp can be effectively utilized in educational settings by English language teachers, who are encouraged to incorporate it into their teaching practices. This integration may inspire students to use WhatsApp as a valuable tool for interacting with peers and engaging with other English learners beyond their immediate social circles. Additionally, Lafleur (2024) found that gamified applications offering daily rewards yield more favorable learning outcomes compared to traditional teaching methods. Currently, the integration of artificial intelligence (AI) into online learning represents a significant opportunity for advancing professional English education (Wang, Liu, & Zhou, 2024). Studies exploring the use of AI tools in English learning highlight both promising learning prospects (Aldawsari, 2024) and potential challenges (Rouabhia, 2025). Similarly, Amin (2023) emphasizes that incorporating AI in EFL education elicits both excitement and notable limitations. Despite these developments, limited research has examined students' attitudes toward AI tools for learning English, particularly vocabulary, within the Omani context. Recognizing this gap, Syahrin and Akmal (2024) argue that understanding the viewpoints of key stakeholders—including students, instructors, and university

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