

AI-Assisted Learning in English as Foreign Language

Objectives

Artificial intelligence (AI) is moving rapidly and is fast becoming an essential component of contemporary education. English-language learning (ELL) has consistently acted both as a catalyst for technical innovation and as a primary beneficiary of AI-enhanced tools. Both English and Artificial intelligence appear to be critical tools for the Kingdom of Saudi Arabia's (KSA) Vision 2030 aimed at social, cultural and economic diversification. This study was designed to investigate the effectiveness of an AI-assisted language learning platform compared to traditional instruction among first-year Saudi university students who are enrolled in a compulsory English as Foreign Language (EFL) course. The study was guided by two critical research questions: (1) Does AI-assisted instruction lead to significantly greater gains in English-language proficiency than traditional instruction delivered under similar conditions? (2) How do learners perceive, and experience AI-assisted language learning compared with traditional methods in terms of the usefulness of feedback, motivation, and cognitive load? One major novel approach in the study is triangulating standardized test scores with psychometric surveys and using semi-structured interviews to further clarify how AI enhanced English language learning and for whom. The results of the study are expected to inform a framework for AI adoption that balances technological capabilities with pedagogical best practice and KSA's multilingual realities.

Methodology

This study employed a quasi-experimental, mixed-methods design involving 147 first-year university students in Saudi Arabia. All participants were enrolled in a mandatory freshman English course and were native Arabic speakers with intermediate English proficiency. They were divided into two instructional conditions: an AI-assisted learning group ($n = 74$) and a traditional classroom group ($n = 73$). Group assignment was determined by intact class sections rather than randomization. A pre-intervention TOEFL ITP test confirmed no significant difference in English proficiency between the two groups ($t(145) = 0.19, p = .85$). This ensured a fair comparison of the instructional methods. The pre-test was given in the week prior to the intervention, and a parallel form of the test was used as the post-test in the week following the intervention to minimize any test-retest practice effects. Each testing session lasted approximately 115 minutes and was invigilated under standardised conditions.

Results

Quantitative data from pre- and post-tests (TOEFL ITP) revealed significantly greater gains in the AI group ($d = 0.85$), even after controlling for baseline proficiency. Regression analysis showed that time spent on the AI platform was a strong predictor of learning gains, with each additional 30 minutes of usage correlating with a 1.8-point improvement. Qualitative data from 30 post-intervention interviews highlighted the perceived benefits of immediate feedback, gamified motivation, and self-paced learning, alongside reported challenges such as streak-related anxiety, accent misclassification, and technical issues.

Discussion

The results of this study support a blended learning model that uses AI to make learning more appealing with teachers guiding learning and supporting students emotionally and socially. The study contributes practical and theoretical insights relevant to policy makers, curriculum designers, and educators seeking to implement AI in KSA and other EFL contexts.