

Artificial Intelligence Speech Production Model for Fostering Spoken English Teaching

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Abstract

The integration of Artificial Intelligence (AI) in English as a Foreign Language (EFL) classroom has opened new possibilities for enhancing oral communication skills. This study explores the impact of Intelligent Personal Voice Assistants (IPVAs)—including Amazon Alexa, Apple Siri, and Google Assistant—on spoken English development among pre-service teachers at Milagro State University. Using a mixed-method convergent design over six months, data were collected from 50 intermediate-level students aged 18–24 through pre- and post-tests and focus group discussions. Quantitative results showed significant improvement in oral proficiency—particularly pronunciation, fluency, vocabulary, and grammar. Qualitative findings revealed increased motivation, engagement, and communication autonomy, with students reporting more confidence and better pronunciation. The use of AI also supported students facing emotional difficulties by encouraging healthy routines, such as engaging in language learning as a productive hobby, contributing positively to mental health. Furthermore, the integration of AI allowed for adaptations benefiting students with learning impairments. By identifying and recommending appropriate online programs, IPVAs helped these learners better understand content and improve their skills at their own pace. Overall, the study demonstrates that AI tools like IPVAs can serve as inclusive, effective, and supportive resources for developing spoken English in EFL contexts.

Keywords: intelligent personal assistants, technology-enhanced learning, English learning, emotional environment, mobile devices