

INTEGRATING ARTIFICIAL INTELLIGENCE INTO FOREIGN LANGUAGE INSTRUCTION: CAPABILITIES AND DIDACTIC CONSTRAINTS

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Abstract

This study explores the prospects of employing generative neural networks (ChatGPT, Gemini) alongside speech synthesis technologies within the context of second language acquisition. It identifies three primary applications of AI: as a simulated dialogue partner, an individually tailored instructional tool, and a support mechanism for educators. The article draws on meta-analytical findings (Huang et al., 2022; Kohnke, 2023), which indicate notable reductions in oral communication apprehension (Cohen's d up to 1.06) and enhanced speaking fluency following regular interaction with AI-based systems. Consideration is also given to the phenomenon of "illusory competence" and suggested instructional strategies to counteract it, such as training learners in metacognitive engagement with neural network models.

Keywords: AI in educational settings, second language teaching, generative adversarial networks, conversational AI agent, language learning anxiety, individualised instruction, pedagogical framework.

Introduction

Recent aggregate studies support the utility of AI in language learning environments. A quantitative synthesis conducted by Huang et al. (2022), incorporating 32 empirical investigations with a cumulative sample of 2,847 subjects, reported a modest yet meaningful overall positive effect (Cohen's $d = 0.58$) attributable to AI integration across both receptive and productive language abilities. The most pronounced gains emerged in written expression ($d = 0.78$) and lexical development ($d = 0.72$), likely owing to the sustained, customised practice opportunities afforded by these tools.

In a separate scoping review published in RELC Journal, Kohnke (2023) focused on emotional dimensions of learning, demonstrating that interaction with AI conversational agents reduces classroom-related foreign language anxiety by approximately 30–40% among learners at A2–B1 proficiency levels. This improvement is attributed by the author to the removal of social evaluation pressures and the availability of unconstrained response latencies.

Principal Functions and Implementation Examples

Role one: individualised conversation simulator. AI can replicate routine, academic, and professional discourse situations — such as checking into a hotel, reserving travel tickets, or discussing a group assignment. This allows students to practise impromptu speech in a low-anxiety context.

Role two: adaptive learning assistant. Language models can produce grammatical explanations and illustrative sentences aligned with a particular student's interests. For less advanced learners, a bot may transform an authentic C1-level text to A2 readability while preserving its original rhetorical structure and logical flow.

Role three: just-in-time teacher support. Within 20–30 seconds, an educator can receive 15 different versions of vocabulary or grammar drills on a chosen subject, thereby reallocating time toward individualised student interaction.

When learners employ AI in superficial ways — for instance, simply requesting translated output — they are not gaining communicative competence but rather engaging in mechanical transcription. The remedy lies in teaching metacognitive prompting strategies: tasks should elicit exploratory reasoning rather than rote execution.

An illustrative effective prompt would be: "Pose five guiding queries in English that help me deduce the correct translation of this sentence independently. Refrain from providing the final answer directly."

Concluding Observations

Incorporating AI into language teaching does not supplant the instructor; rather, it redefines the instructor's responsibilities — shifting from being a mere transmitter of content to a designer of personalised learning trajectories and a critical guide to navigating digital information sources. Provided that didactic boundaries are respected (such as fostering prompt literacy, verifying factual outputs, and distinguishing appropriate assistance from inappropriate delegation), AI functions as a conduit linking artificial classroom exchanges with authentic interaction among native speakers.

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