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Rethinking EFL Listening: AI-Driven Feedback for Learner Self-Efficacy in Virtual Flipped Classrooms

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Abstract

This study explores the pedagogical and psychological impact of a Max Live Virtual Flipped Classroom (Max LVFC) on learner self-efficacy (SE) in an English as a Foreign Language (EFL) listening course. Using a quasi-experimental design with pre-, mid-, and post-tests, 56 first-year undergraduates were assigned to either a high-intensity (Max LVFC) or low-intensity (Min LVFC) condition. Results show that both groups achieved significant gains in self-efficacy over time; however, no statistically significant between-group differences were found, suggesting that increased instructional intensity alone may be insufficient to optimize learners' self-beliefs. Building on this finding, the study proposes an AI-assisted enhancement model that reconceptualizes technology as psychological scaffolding rather than merely instructional support. Grounded in Social Cognitive Theory and Control-Value Theory (CVT), the model introduces an AI Conversational Feedback System (AI-CFS) that delivers adaptive, dialogic, and non-judgmental feedback to systematically activate the four sources of self-efficacy—mastery experience, verbal persuasion, emotional regulation, and perceived control—through personalized and low-stakes learning interactions. By integrating AI-driven feedback into virtual flipped learning, this study not only advances theoretical understanding of self-efficacy development but also offers a scalable and transferable framework for EFL listening instruction, contributing to ongoing discussions on innovative, learner-centered pedagogy and the transformative potential of AI in language education.

Keywords: AI Conversational Feedback System (AI-CFS); Max Live Virtual Flipped Classroom; Min Live Virtual Flipped Classroom; Self-Efficacy