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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Harnessing the human-centred capabilities of AI to support presentation confidence among EAL students

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Oral forms of assessment are increasingly adopted in higher education as authentic approaches for evaluating disciplinary knowledge and critical thinking capabilities. However, students transitioning into university, particularly those from English as an Additional Language (EAL) background, frequently encounter barriers that affect their ability to demonstrate their knowledge effectively, including pronunciation, academic vocabulary, and non-verbal communication behaviours. Among these, EAL students consistently report presentation-related fear as a barrier to demonstrating competence (Grieve et al., 2021), with prevalence estimates exceeding 60% among undergraduates (Marinho et al., 2016). This fear operates largely independently of linguistic accuracy: EAL learners' self-efficacy beliefs about their speaking ability predict performance more strongly than measured competence does (Zhang & Ardasheva, 2019).

Recent advances in AI systems seem to hold potential solutions, offering interactive support through chatbots, agents, and avatar-based systems. While these technologies offer opportunities for presentation rehearsal and feedback, most current implementations are designed as general-purpose tools and do not explicitly take into consideration the pedagogical impact and communicative barriers experienced by EAL students in presentation contexts. Existing AI-assisted presentation training research has concentrated on evaluative precision, such as automated scoring of fluency, accuracy, and pronunciation (Chen et al., 2023). Meanwhile, AI-supported presentation coaching tools such as Yoodli and Orai, focus on two main tasks: getting the presentation's content and script right, and performing it live in one's own voice. A gap therefore remains in how AI can be deliberately designed to target this affective barrier rather than articulation itself.

This project reexamines AI's role in the Technology-Enabled Learning (TEL) context, shifting it from assessment substitute to confidence-building mediator, and responding to calls for AI integration in education to be considered from the angle of human-centred design that benefits the end users (Alfredo et al., 2024). It adopts a co-design approach in which EAL students and instructors are consulted on the proposed scaffolding of the presentation preparation process, following the shift from user-centred design to genuine co-designing with users (Sanders & Stappers, 2008). It addresses the research question of how EAL students may harness the capabilities of AI to support presentation confidence.

The study integrates three complementary theoretical framings. First, confidence is treated as a construct distinct from articulation accuracy (McCroskey, 1977; Tsang, 2025). Second, AI-mediated agent mobilises self-distancing theory's account of reduced evaluative stress when judgment is displaced from the immersed self (Kross & Ayduk, 2017). Third, the design extrapolates on evidence of self-efficacy theories (Bandura, 1997) to address issues of confidence in presentation.

The paper proposes a co-designed framework for confidence-oriented AI support and discusses implications for the development of human-centred design for AI in higher education. Preliminary evidence from pedagogical research suggests the intervention's effectiveness depends on how the model is constructed. Agents perceived as similarly competent to the learner have been found to build self-efficacy more effectively than idealised, highly competent agents (Kim et al., 2006). A full comparative analysis of existing AI-supported presentation tools,

alongside the staged design architecture and findings from the study, will be presented if shortlisted.

Keywords: human-centred AI design, English as an Additional Language, presentation confidence, AI-mediated learning

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