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Future-Focused:

Educating in an Era of Continuous Change

The AI client: Using empathic voice-interactive AI to support the development of clinical communication skills

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Developing effective communication skills is essential for healthcare professionals. Poor communication can result in misunderstandings, clinical errors and reduced client satisfaction (Bensing, 1991; Ong et al., 1995; Ratna, 2019). Role-plays and simulations with actors are commonly used to teach and assess these skills (Kaplonyi et al., 2017). Students may also practice informally with peers or family members. These approaches are underpinned by Kolb's Experiential Learning Cycle (Kolb, 1984), enabling students to engage in concrete experiences through interaction, reflect on their communication strategies, and actively experiment with applying these skills in future clinical scenarios. However, these approaches often fall short in authenticity and accuracy, particularly when participants lack knowledge of specific medical conditions or cultural contexts. Moreover, scripted role-plays can limit students' ability to adapt to the unpredictable nature of real-world healthcare interactions, thereby hindering the development of communication flexibility. Peer feedback is frequently inconsistent or inaccurate, and actor-based simulations, while more realistic, are often prohibitively expensive.

To address these challenges, previous research has used Artificial Intelligence (AI) tools to successfully support health professional student's communication skill development (see Stamer et al., 2023 for review). However up until recently, the AI tools available have been limited in capability and have been difficult and expensive to access. Increased accessibility and improved capability in recent years has resulted in increased opportunity for the use of AI tools to support health professional student's communication.

This project aimed to leverage Hume.ai, an empathic voice-interactive AI application, to enhance communication skills and improve confidence among allied health students. The project also explored the potential of Hume.ai to be used in the assessment of communication skills.

Students from a range of allied health professional courses, including speech pathology, physiotherapy, pharmacy, occupational therapy, social work, nutrition and dietetics, trialled the interacting with this tool. Students were provided with suggestions for simulated interactions with Hume.ai to practice and refine their communication skills. These simulations covered a range of scenarios, including patient interviews, describing therapy approaches, and engaging in difficult conversations.

To evaluate Hume.ai, reflections were collected from staff and participating students were invited to complete a questionnaire and attend a focus group regarding their experiences.

This presentation will share key insights from staff reflections and early findings from student evaluations regarding the use of Hume.ai in training and assessing communication skills. It will explore the perceived strengths and limitations of the application, discuss student engagement and reactions, and examine the extent of uptake among learners. Additionally, the presentation will address the practical and ethical challenges encountered in securing approval for the use of a voice-based AI tool in educational settings. These insights aim to inform future integration of AI-driven tools in communication training and stimulate discussion on their broader implications for education.

Keywords: Voice- Interactive AI, Health Professionals, Communication

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