

Eating, drinking & swallowing clinical competencies and virtual reality simulation: Evaluation of speech & language therapy student experiences and learning

Purcell, R., Abid, H., Delaney, J., Greenwood-Davies, S., Ormerod, E. & Freed, J. (2025)

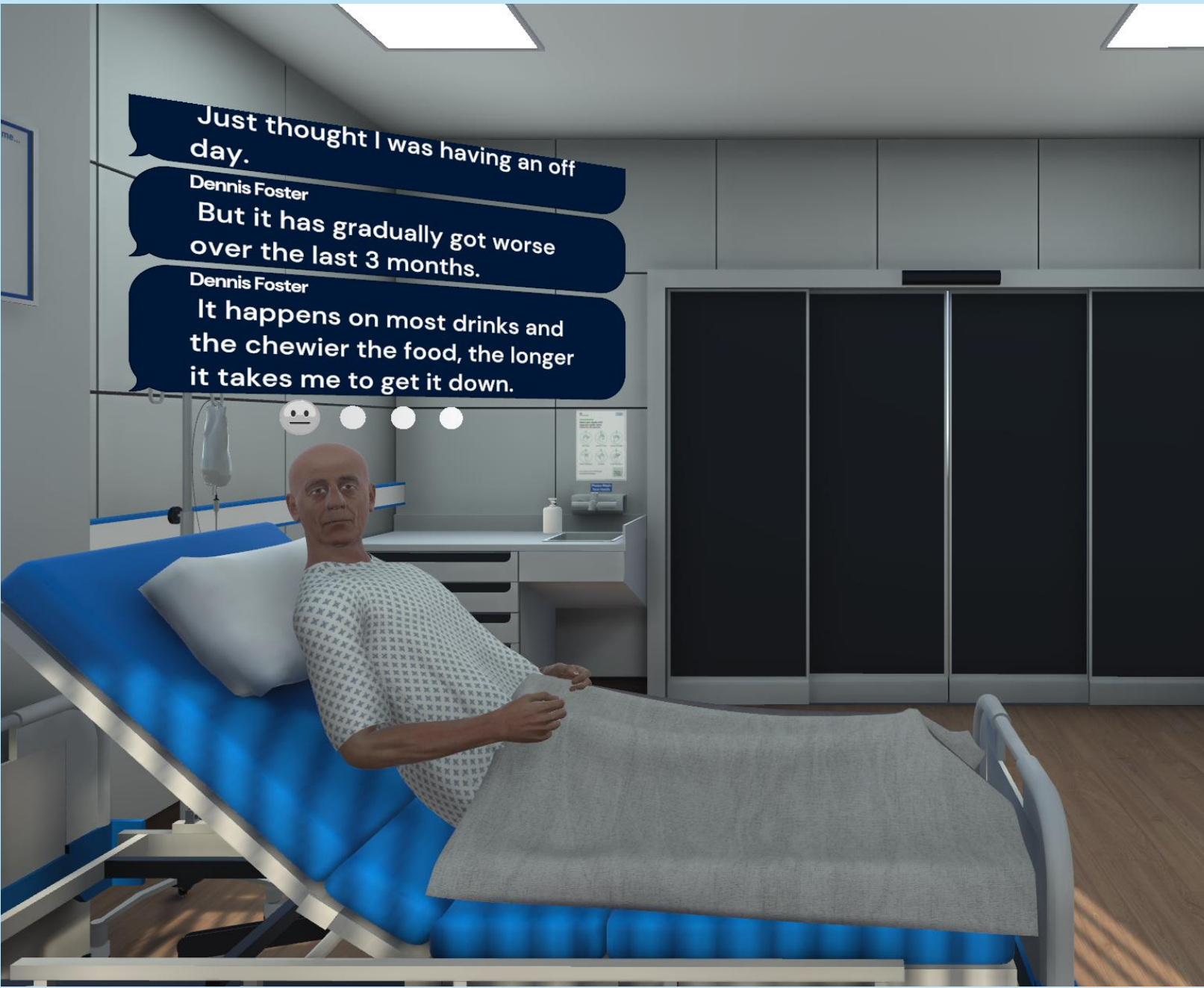
Dept. Speech & Language Therapy, University of Manchester

Background: Clinical competencies are required of SLT students in eating, drinking & swallowing difficulties to successfully graduate & enter the workforce from 2026 (RCSLT, 2021). Clinical placement learning is varied and limited in capacity. A virtual reality (VR) simulation was designed to create a virtual environment where SLT students could practise their practical clinical skills.

Aims: To investigate whether the use of VR simulation was a viable teaching method for acquiring practical clinical competencies for speech & language therapy (SLT) education.

The VR Simulation: Dennis, a 72-year-old man who had recently been admitted to hospital with a chest infection. When asked appropriate questions, he described a gradual onset of difficulties swallowing. Participants were able to practise practical competencies such as gathering relevant case information and forming a diagnostic hypothesis.

Participants: 16 second year SLT students at the University of Manchester completed the study. This included the VR simulation, debrief & evaluation discussions & online pre and post evaluation surveys to explore their experiences and attitudes towards the use of VR simulation in SLT education.



Results

- 60% of participants rated themselves as having higher levels of self-confidence in most of the clinical competencies.
- All participants gained in confidence in at least one of the targeted clinical competencies.
- 73% of participants agreed VR was useful for their learning.
- 80% of participants agreed VR technology was easy to use.

Thematic Analysis

Post-simulation discussion groups revealed the following key themes:

VR created a realistic clinical environment and a ‘safe space’ for learning

The VR experience provided opportunities to practise structured conversations with clients to prepare them for real-life clinical interactions

Limitations of the VR simulation included lack of emotion in Dennis’s voice, making some of his responses difficult to ‘read’

Outcomes & impact on SLT curriculum: Overall, students appreciated the VR simulation experience and considered it a valuable addition to SLT education. These findings indicate that the use of VR simulation is both a viable and welcomed addition to the SLT programme at UoM. SLT students now use the VR simulation as part of their clinical skills learning which has been integrated into the curriculum.