University of
South Australia

Virtual Reality and Immersive Experiences to Support Student Learning.

Assoc. Prof. Caroline Ellison
Caroline.Ellison@unisa.edu.au

Background

- Students are often required to undertake WIL in areas they can have limited experience or previous exposure too.
- There is limited opportunities for many students to engage with individuals with lived experience prior to placement. Yet, students expressed seeking more engagement and individuals want supports that listen to their will and preference.
- There is a risk to students and individuals with support needs around inexperienced students undertaking early or complex needs WIL experiences.
- Students can report high levels of anxiety and a lack of confidence before engaging in the field with WIL or placements. They would like safe to make mistakes learning opportunities.
- Engaging students with research papers, journal articles and other resources to prepare them for WIL can be challenging and historically not based on cocreation with those with lived experience.

Opportunity to Support Learning

Experiential Learning in Safe Environments

- Students can engage in realistic client interactions (e.g., with virtual clients experiencing trauma, addiction, domestic violence, etc.) without risk to real clients or themselves.
- VR and AI allows students to repeatedly practice skills such as interviewing, active listening, or crisis intervention until they feel competent. Based on lived experience.

Building Empathy and Perspective-Taking

- Immersive experiences codesigned and created can let students “step into the shoes” of clients—e.g., experiencing homelessness, living with a disability, or navigating a public service system as an immigrant.
- Perspective-taking experiences can challenge stereotypes and reduce unconscious bias, which is crucial in human services work. Frankly, why shouldn’t have students engaging with them that have some foundation understanding based on lived experience not just theory.

Opportunity to Support Learning

Cultural Competency Training

- Exposure to diverse contexts: VR can transport students into culturally diverse settings, helping them learn to navigate cross-cultural communication and culturally responsive care.
- Global learning: Students can explore community contexts from different regions or countries without travel, broadening their understanding of social determinants and systemic inequality.

Trauma-Informed Practice

- Carefully designed immersive experiences can help students recognize trauma responses and practice trauma-sensitive interventions in a low-risk setting especially as a whole tutorial or workshop experience.

Opportunity to Support Learning

Skill Development

- VR role-plays can help students develop soft skills—like empathy, de-escalation, or motivational interviewing.
- Simulations can present complex scenarios requiring ethical judgments and prioritization of client needs.

Reflection and Feedback

- Some platforms allow students to receive real-time or recorded feedback on their choices and interactions.
- VR experiences maybe recorded and replayed for critical reflection

Opportunity to Support Learning

Accessibility and Flexibility

- Remote learning: VR can support distance learning by giving remote students access to simulated fieldwork experiences or practice labs.
- Providing equitable learning experiences: Ensures all students can encounter and learn from a range of key scenarios that might not arise in limited or even diverse field placements.

VR Immersive Experiences

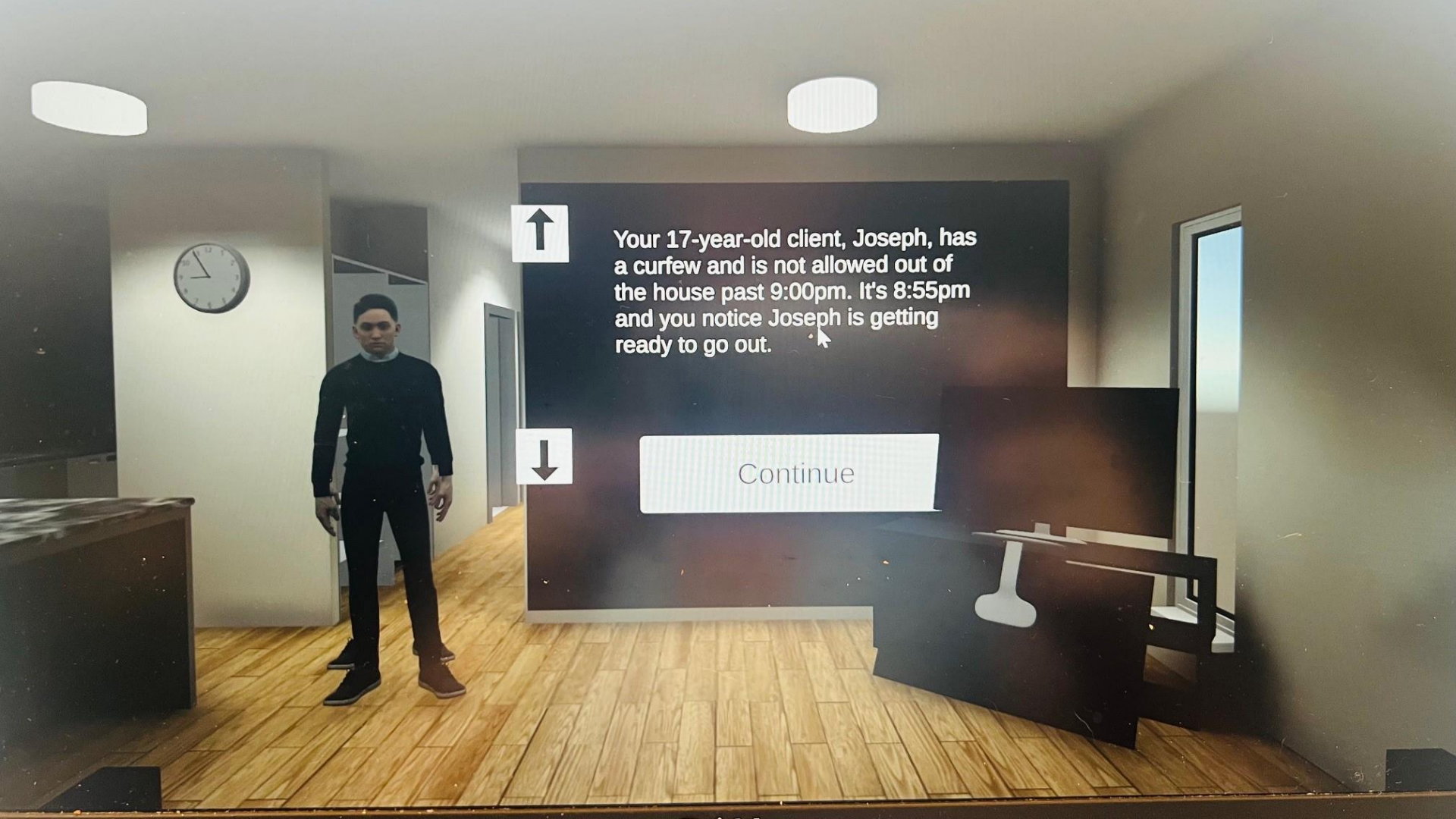
- fEEL Empathy Lab from UNSW - https://feel-lab.org/research-projects/ They have been generous. We thank them.

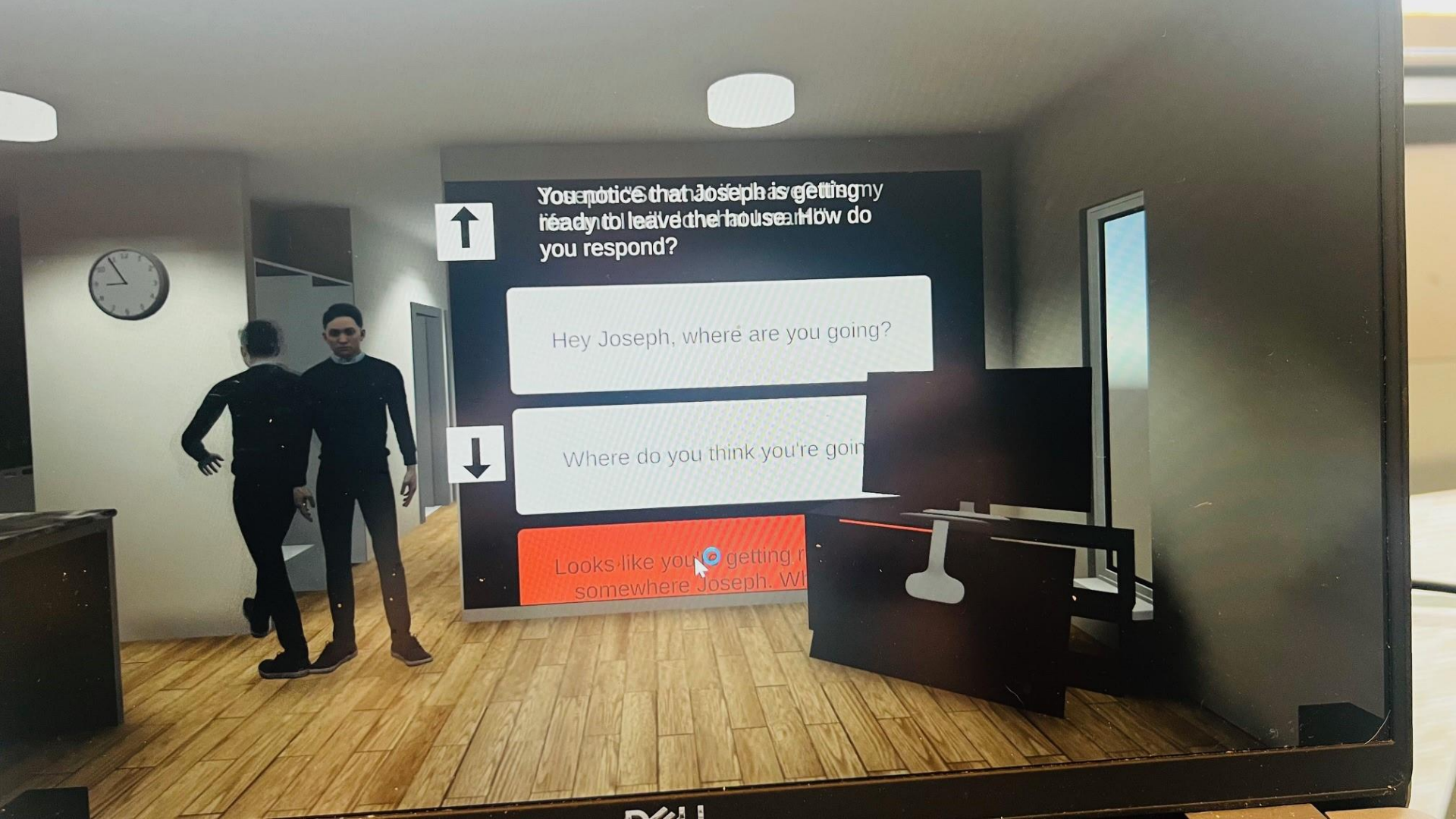
We have used The Visit – a home visit with a woman living with dementia – students reported positive learning and most stated they wished they had accessed the experience prior to going on their first placement.

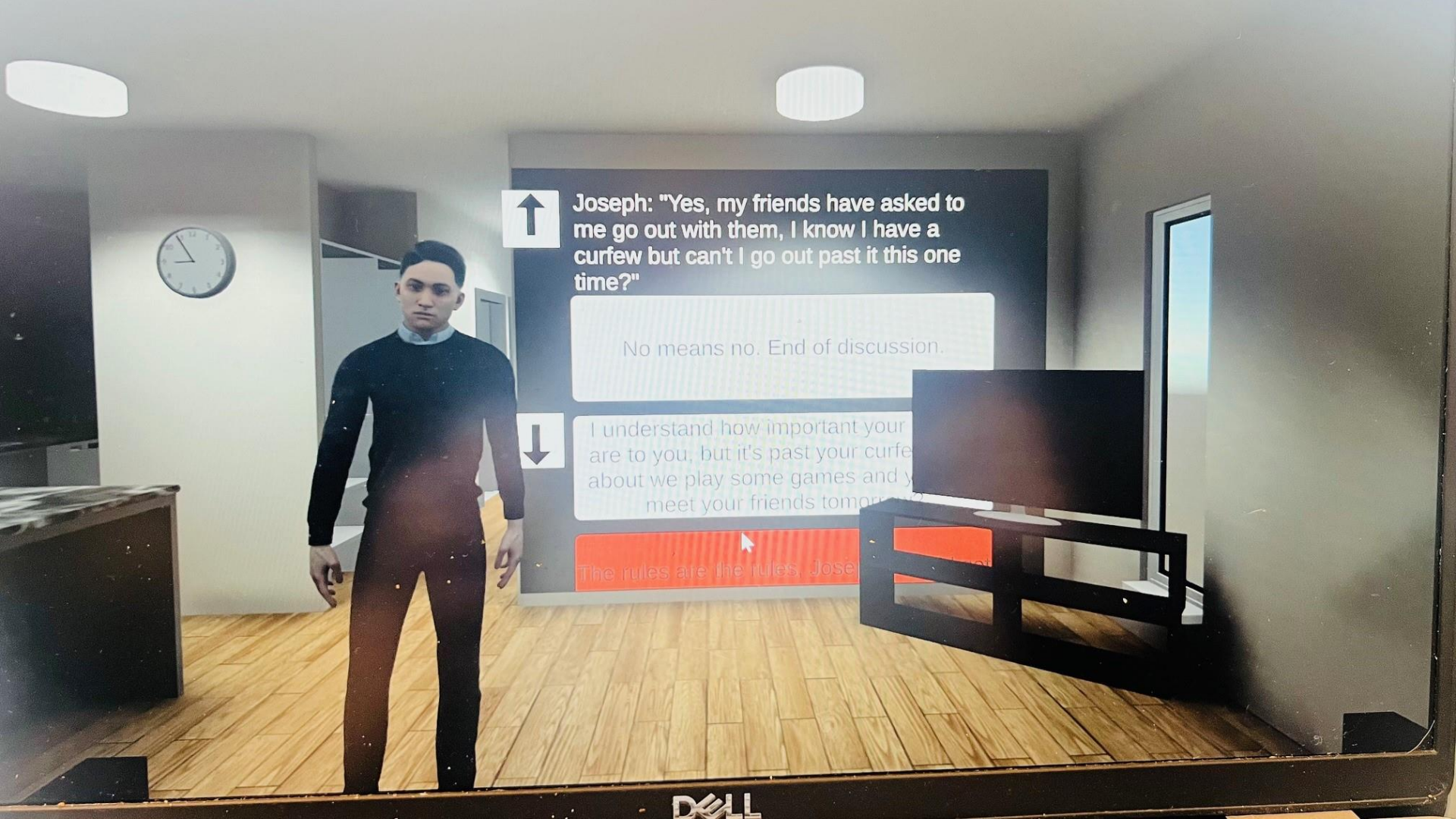
Deescalation Practice

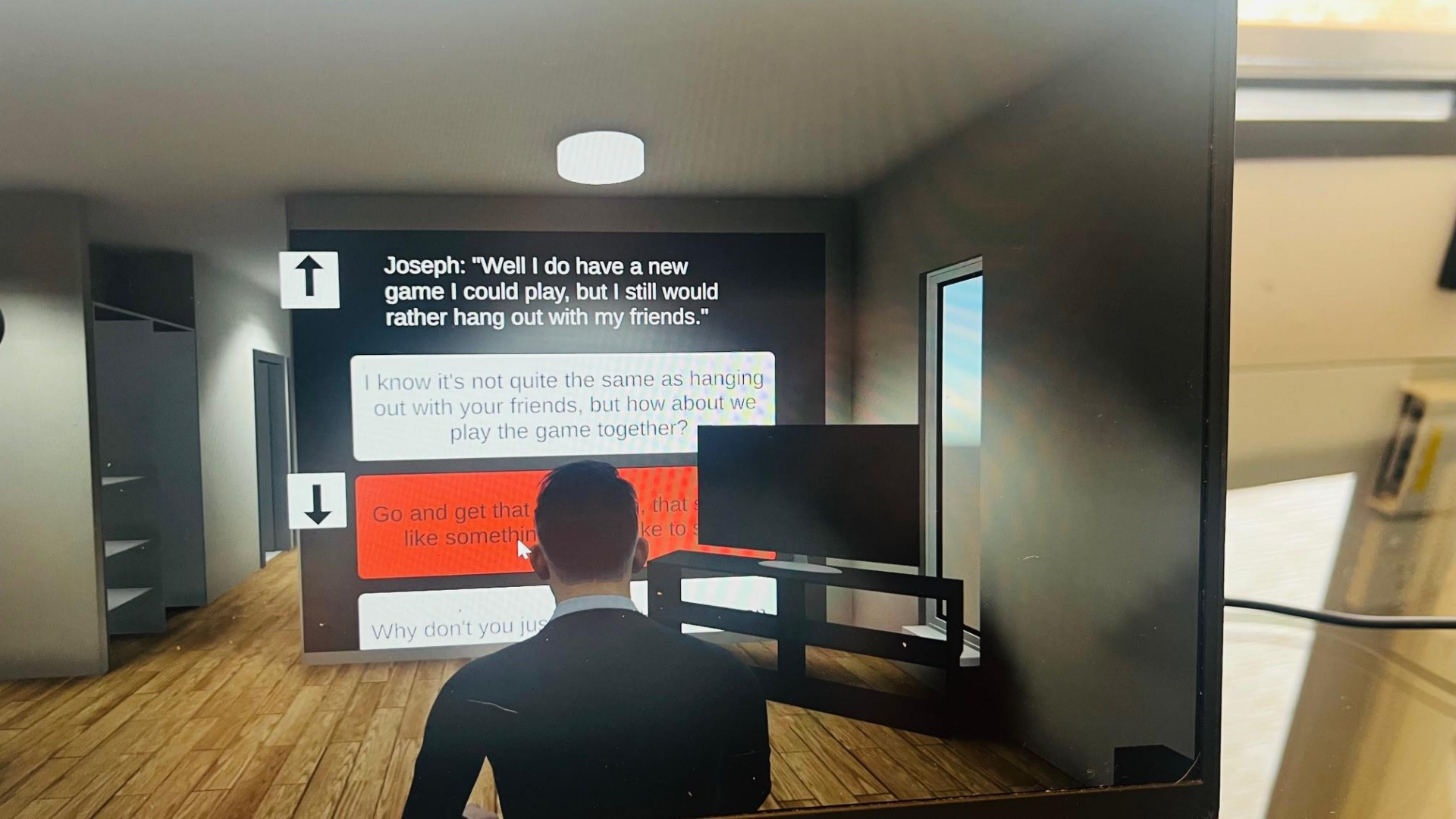
Hsu R, McCabe C, Ellison C, Howells M, Loetscher T. Bridging the Gap: Virtual Reality as a Tool for De-Escalation Training in Disability Support Settings. *Multimodal Technologies and Interaction*. 2024; 8(11):100. https://doi.org/10.3390/mti8110100

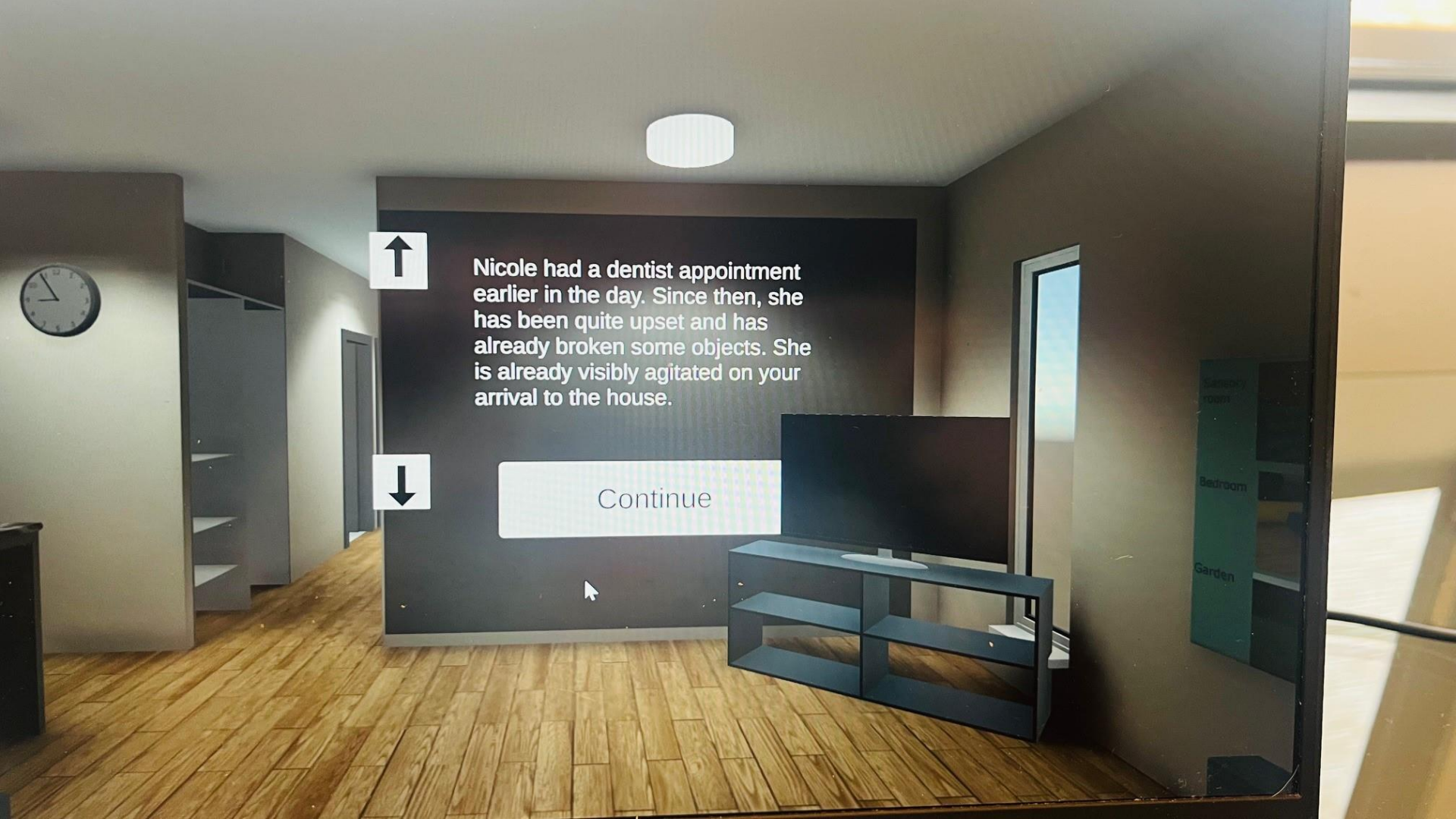
- Those working in disability support settings often face situations requiring de-escalation skills (i.e., managing frustration, aggression, emotional distress) in ways that respect dignity and autonomy of clients.
- Traditional training (lectures, videos, role-play) has limitations: logistics, cost, realism, frequency.
- Virtual Reality (VR) offers promise as an immersive, controlled environment for safe practice of stressful interactions, aligned with experiential learning theory and situated cognition.
- A pilot test with 20 participants found high usability (SUS ≈ 81) and a positive correlation between empathy and VR performance (r ≈ 0.49).
- The tool has not yet been evaluated in real workplace training settings (vs university lab) and has not yet been compared directly with other training modalities (e.g., role-play). The authors highlight need for such research.

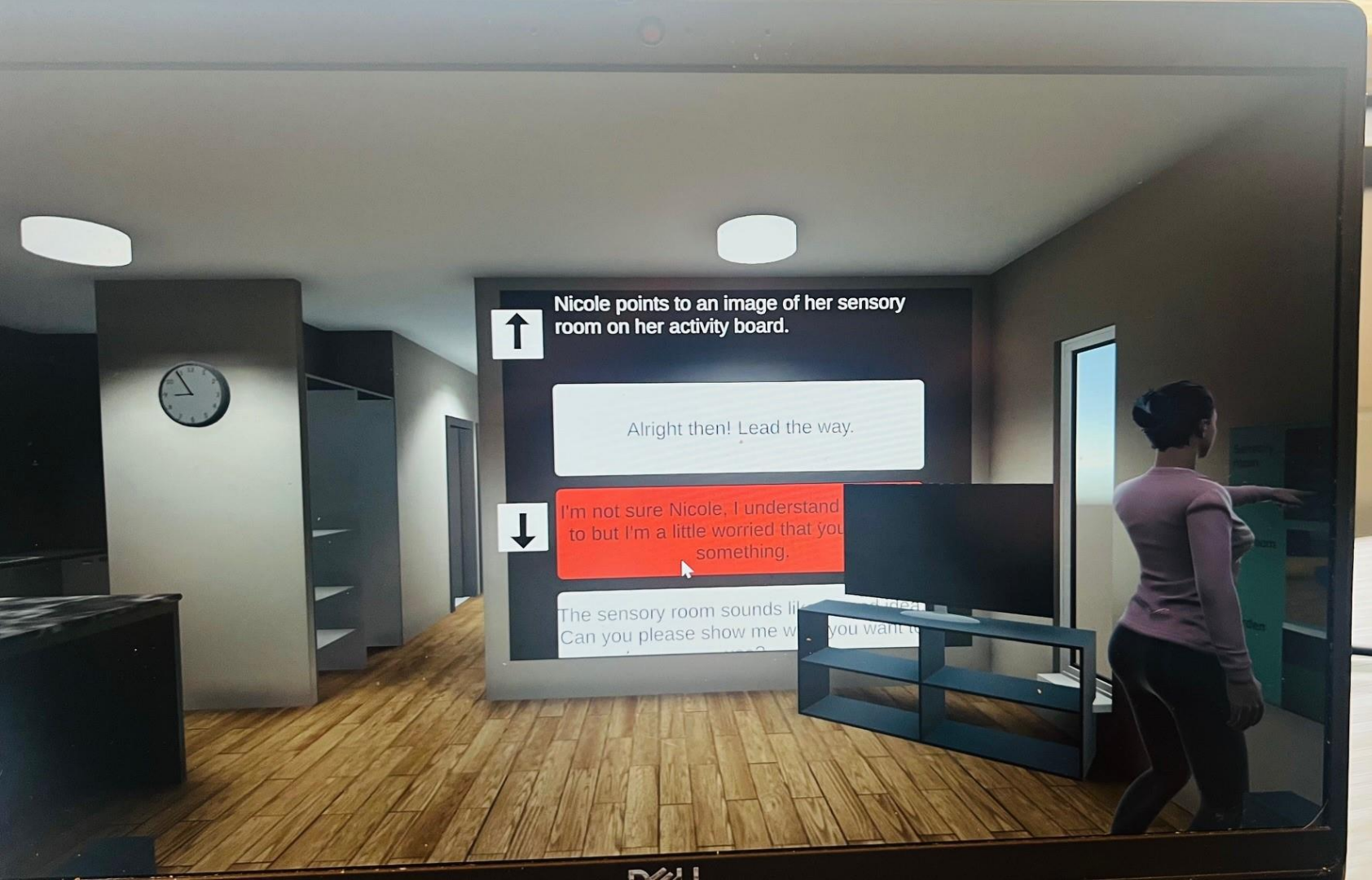

Your 17-year-old client, Joseph, has a curfew and is not allowed out of the house past 9:00pm. It's 8:55pm and you notice Joseph is getting ready to go out.
Continue


You notice that Joseph is getting ready to leave the house. How do you respond?
Hey Joseph, where are you going?
Where do you think you're goin
Looks like you're getting r
somewhere Joseph. Wh


Joseph: "Yes, my friends have asked to me go out with them, I know I have a curfew but can't I go out past it this one time?"
No means no. End of discussion.
I understand how important your
are to you, but it's past your curfe
about we play some games and y
meet your friends tomor
The rules are the rules, Jose


Joseph: "Well I do have a new game I could play, but I still would rather hang out with my friends."
I know it's not quite the same as hanging out with your friends, but how about we play the game together?
Go and get that
like somethin
Why don't you jus


Nicole had a dentist appointment earlier in the day. Since then, she has been quite upset and has already broken some objects. She is already visibly agitated on your arrival to the house.
Continue
Bedroom
Garden


Nicole points to an image of her sensory room on her activity board.
Alright then! Lead the way.
I'm not sure Nicole, I understand
to but I'm a little worried that you
something.
The sensory room sounds li
Can you please show me w
you want t

Nicole appears to still be distressed.
Bedroom
Garden
DELL
home
end
insert
delete

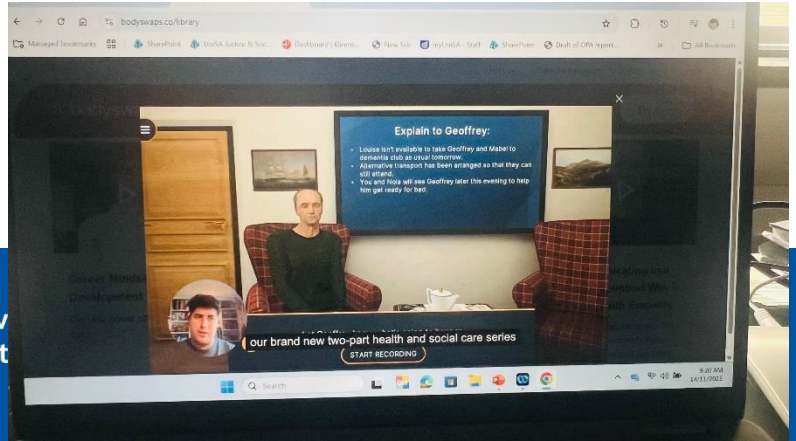
Using VR in Ageing and Disability Courses

Lessons for future activities:

- How do provide equitable access to VR to all students VR. Once technologies are settled in terms of stable technology.
- VR headsets take time to set up and can require some set up maintenance. On reflection we need to conduct a tutorial on the VR headsets so students can trouble shoot themselves
- VR Applications can occur licence fees – we are yet to bring library into the discussion.
- We offered students a 2D PC option, but they reported preferring the VR immersive.
- The scenarios take someone with coding experience to set up so educators need resources to build bespoke options. Critical to this project is our engagement with students and individuals with lived experience as well as technology developers.

Using VR in Ageing and Disability Courses

- We are exploring with a company Bodyswaps UK the option of using a platform that would allow educators and potentially individuals themselves to set up an experience for supports and new workers to learn how the individual would like to be supported.
- The concept is that it would be a platform that is able to be tailored without the need for coders and other complex technical assistance which is costly.
- https://bodyswaps.co/trial-bodyswaps?hsCtaAttrib=185424013098



University of
South Australia

I would like to thank individuals with lived experience that have assisted us to get started, to students who have trialed the technologies and given us feedback. To UNSW and the fEEL lab for sharing. Tobias Loetscher, Connor McCabe, Jonathon Hart, Gun Lee, Cate Hudson and all those who have supported, contributed or provided resources. Including JUS Teaching and Learning grants and Provost Equipment Grants.