

JASPER: CUTTING EDGE SIMULATION

Full project name: Jasper – A Virtual Reality Simulation Program

Lead organisation: Curve Tomorrow

Collaborators: Holmesglen Institute, Swinburne University of Technology

WHAT'S THE WICKED PROBLEM – THE CONTEXT

Many TAFEs use actors who role play to try to create true-to-life classroom simulations that train paediatric health students to deal with crises. Because of cost and time pressures, this means only 10 to 20 per cent of students can participate in a given simulation.

Another problem is that some scenarios can't be included because of ethical or safety concerns. Combined with a shortage of work placements, this runs the risk of leaving some graduates ill-prepared for the workplace.

WHY DON'T WE ... – THE INNOVATION

Curve Tomorrow has built an interactive virtual reality simulation platform called VirtualU. Using a headset, students are immersed in a 360-degree, pre-recorded virtual environment.

They are immersed in scenarios such as dealing with aggressive patients or providing end of life care. By directing their gaze, they make choices that affect what happens next – like in the old "choose your own adventure" novels.

VR boosts the participation rate in simulations to 100 per cent. It sidesteps the ethical and practical considerations that hampered old-school simulations. Institutions can use the technology to create their own immersive training programs in a cost-effective manner.



UP AND RUNNING – THE OUTCOMES

Curve Tomorrow has built a working VR experience on Android, iOS and Oculus and filmed four learning modules with the help of Holmesglen Institute and Swinburne University. It ran a small pilot program with teachers and students at Swinburne and received enthusiastic feedback.

Meanwhile, a year-long randomised control trial started at Holmesglen in July. This trial will work with about 300 students to test the effectiveness of VirtualU training against the traditional training methods.



'INTEGRATING THE END USER EARLY IS CRITICAL' – LESSONS LEARNED

- Curve Tomorrow's Ben Rowland says learning from trial and error is pivotal. *"New tech is challenging and time consuming,"* he says. *"A much higher emphasis on testing should be factored into projects of this nature."*
- It's also important to include the people who will actually use the VR in the process as early as possible. *"Integrating the end user early into the project is critical in building something intuitive they will actually use,"* Mr Rowland says.
- Technology is advancing at a staggering rate in general, and particularly in virtual reality. *"VR is in its infancy and has a lot of room to improve,"* Mr Rowland says. *"Even dedicated VR device hardware is still being developed to get the experience to a high standard, which will entice mass adoption at an appropriate cost."*
- A clear structure with deliverables, timelines and an actionable to-do list helps provide clarity for other project partners.
- It is important to communicate the benefits of using new technology to a broader set of stakeholders, including teachers and students, to ensure a positive mindset and uptake.
- Swinburne University and Holmesglen Institute have learnt it's better to work together to shape the content of the simulation training, so it can be used in both institutions.

Founded in 2017, the Workforce Training Innovation Fund (WTIF) is a targeted *Skills First* funding stream. WTIF creates opportunities for partnerships between industry and the TAFE and training system and encourages them to explore bold, innovative approaches that challenge existing practices in skills development and training methods.

Ultimately, these new ideas and solutions aim to enhance workplace productivity, particularly in Victorian Government priority sectors. More than \$90 million of funding has been committed to date.

The next round of WTIF funding is now open for applications.

To find out more visit www.education.vic.gov.au/training/providers/funding/Pages/wtif.aspx or email the WTIF team at wtif@edumail.vic.gov.au