

# Looking into the future of police training

By Brendan Roberts

**You can't replicate in training what a police graduate might confront in their first day, week, month or year on the job. The scenarios and environments are infinite, the potential for injury too great, the cost too much and the authenticity unachievable.**

Police can rely on their training to guide their actions when called upon, but they cannot know how they will react until they do. Put simply, there's no dress rehearsal for real life as a police officer or PSO.

Until now.

For the past four months, the Operational Safety Tactics Training complex at the Police Academy has been trialling a Virtual Reality simulation system that takes participants through a range of critical incident scenarios, forcing them to react to situations they cannot anticipate or plan for.

OSTT Inspector Paul O'Loughlin said the technology, which he has been looking into for the past four years, fills a void in training that is critical to assisting inexperienced police when they are called upon to respond to a real-life critical incident.

"It bridges the gaps in terms of things that are too dangerous to replicate in real life... you see very strong physical and emotional reactions from students... and that allows them to actually get practice at making justifiable decisions under that sort of critical incident stress, where there is a perceived real threat to their life," Inspector O'Loughlin said.

"I think it gives them the really fundamental skills that they need and some of the things that I think they're lacking, like situational awareness, good risk assessment, planning and decision making."

## The pressure test

The sophistication of the technology and the realism of the environment evokes physiological and psychological responses from participants to the unfolding critical incident scenarios, mimicking the body's natural response to pressure situations and its effect on decision making.

"We don't pressure test our people, this allows us to pressure test them, with threats that they can't otherwise have replicated. It's about engaging that whole of body experience, your emotions kick in, your physiological responses, your psychological responses, and allowing you to recognise that that's happening to you, to not let that panic you or cause you to do something silly and allow you to practice managing your way through it."

"That's how people become good at making good decisions and experienced operational members have got that, but they've done it through a

bit of a baptism of fire, where they had real life consequences. This gives you on-the-job style learning outcomes without the real-life consequences."

## How it works

The VR simulation requires participants to attach a headset and headphones, a separate backpack, and to carry a replica long-arm (which would be replaced by standard issue operational safety equipment, if VR training was to become a permanent feature of OSTT). What they see, hear and respond to, is guided by a controller behind a computer screen. Each scenario is recorded, allowing participants after the exercise to watch from several angles how they reacted to a range of threats, what observations about their virtual environment they made and what they missed, and what it is like to experience their own physiological reactions to high pressure situations.

Probationary Constables Jonah Carey and Alannah Lewis were two weeks away from graduating, when they were put through the VR simulation.

"I was apprehensive because it was so real. My heart was racing, I was a bit sweaty, I definitely noticed the physical side of it," Alannah said.



Probationary Constables Jonah Carey and Alannah Lewis get their dose of the virtual reality training.

"Because it's so immersive, it puts you right in the situation without thinking. When we do training out in the (Academy) village, you've got your squad on the side and you notice people talking and it can be distracting, but with this, you just feel like you're there."

The pair was put through a series of scenarios including at a city premises where several people had been taken hostage by a group of camouflaged and armed offenders, a hostile vehicle hurtling towards them in a narrow alleyway, confronting a knife-wielding man in an apartment which featured extremist flags and literature, and a second hostile vehicle situation unfolding on the Bolte Bridge.

Jonah said the sensory overload and unpredictability of what he was about to confront, made the experience feel 'very real'.

"It's a lot to take in, there's so much noise in your headset that you have to take onboard, but not be distracted by. There's so much to think about with different things happening at different times and threats coming from different places, so you've got to be on your toes," he said.

"You never know what's coming, whereas, with some forms of training, you have some idea of what's coming, with this it's just pure reaction."

This, according to Inspector O'Loughlin, is why VR training supersedes other more traditional methods of training for recruits.

### Training at its best

"If they haven't had that experience before, if they've got no file in their brain to draw from, then that makes it really difficult for them to make a decision (when they have to)," he said.

"VR simulation gives them an array of experience to draw from when they need to make those really critical decisions under stress, when their heart's racing, they have a reaction pre-prepared that is generally going to be effective."

Ross McNeill, Superintendent of the Operational Safety Division, believes that to be relevant and effective, the training of police has to evolve with the types of threats and situations they will confront.

"Training is an evolution, so we progress with technologies, we progress with academic thinking and a whole range of things that come into play over time to create and enhance a better environment and to make sure that the education processes are getting bedded into the individuals as best as possible," he said.



TPAV Secretary Wayne Gatt (centre) inspects some of the virtual reality training equipment with Superintendent Ross McNeill (left) and Inspector Paul O'Loughlin (right).

Superintendent McNeill said Victoria Police had been a leader in modern training techniques and he hoped this would continue with an investment in VR training.

"We've seen that here over the years with the development of the scenario village, which was one of the first of its kind, we've moved to reality-based training to a large extent, with some enhancements and this is probably the latest type of enhancement we're looking at," he said.

"Other areas and jurisdictions are looking at similar things, but we think we're probably at the forefront, because we've got a number of agencies coming to us and looking at what we're doing."

Inspector O'Loughlin said the potential scope of VR training in the future was limitless.

"The ability to really scale the intensity is huge. At the start of the training there could be fairly basic scenarios that are just skills-based, by the end we can start to introduce a lot more stimulus, noise, lighting, weather effects, even scent dispensers, so we can start to really tap into different things to raise and lower the stress levels and incrementally increase exposure to them," he said.

"It means that when they go operational, the first time they walk into a situation where maybe there is a

dead body, they are not overwhelmed by the smell and the sight, that it's not going to break them."

### Endless possibilities

He said the scope for different scenarios was unlimited because the space is reusable.

The area being used to trial the VR system at the OSTT complex is 8m x 10m.

"But, the bigger the area you have, the greater scope you have. One scenario could be a church, then that could turn into an airport," he said.

"You could absolutely re-create Bourke Street, right down to high-level detail, you could re-create critical infrastructure using floor plans to help train for the protection of that infrastructure. If you had a high-risk warrant coming up, you could re-create the apartment you're going to, to execute the warrant and actually rehearse it."

And, he believes the technology's utility is not only in training for critical incidents.

"It's not just all about guns with active armed offender type training, it can be negotiations, it can be family violence, it can be crime scene management, you could re-create a clan lab and just have people gaining some situational awareness and risk assessment. Our operating environment has evolved a lot, it's a lot more complicated than it was and this will help our training catch up."

Pictures courtesy of the Darren Tindale.

## Virtual Reality training: a test you can't cheat

An account by [Brendan Roberts](#)

Having just watched soon-to-be graduates, Jonah and Alannah, step over imaginary impediments, hide behind imaginary walls and recoil from imaginary hostile vehicles and armed offenders during their virtual reality training simulation, I thought I could enter the simulation exercise, with my mind straddling the dignified line between what's virtual and what's real.

I knew the space I was in was open, free of walls, impediments, bad guys, victims, extremist flags, blaring televisions and revving cars. With that knowledge, I thought I could cheat my mind into entertaining my environment under the headset, while maintaining my spatial awareness outside it.

But when the headset and backpack went on and the sounds in my ears matched the virtual world I was now immersed in, I immediately and instinctively began reacting to the environment around me.

As I walked hesitantly down a virtual hallway, I heard a commotion to a room on my right. I looked inside to see a nervous looking man with his hands in the air. When a figure in camouflage and a handgun appeared behind him, I instinctively ducked back behind the invisible wall that my brain had told me seconds earlier wasn't really there, and to ignore.

Pretty soon I was bending down to pick up virtual firearms and looking around the room to put faces to the whimpering and heavy breathing noises that were coming from the surviving hostages who were surrounding me.

It showed how quickly and comprehensively the visual and audio stimulus had overpowered my brain's ability to separate what I was seeing, hearing and feeling, from where I knew I was, what I was doing and what was happening to me.

And, it made my reactions to what I was confronting pure and instinctive; a valuable baseline measure for how I would fare in a real-life situation.

As I removed the headset and regained my bearings, I felt my heart rate still elevated, the sweat on my hands and a distinct sense of vigilance.

While the simulations provide a realistic platform to test training in realistic scenarios, they also elicit an individual biological reaction to the pressure situations that unfold, something that can't be re-created in other practical modes of training.