# Serious Games for Training ::: Mark O'Rourke ::: Victoria University

## 1. the challenge

The VET (vocational education and training) system in Australia provides a framework for quality learning approaches. However, there are many issues with engaging and retaining students. In particular, using traditional delivery methods don't suit learners of today, especially for providing flexible, situated and relevant learning opportunities. Introducing new learning technologies goes some of the way for addressing these issues, however these technologies must be available on multiple platforms and be able to cater for diverse digital literacy skillsets, empowering rather than alienating students and teachers.

The world is increasingly connected via fast speed internet and there is potential to deliver customized responsive culturally specific training to build new economies, reducing the need for people to move from where they live and work to gain qualifications. An example of this potential is that 400 million people are estimated to require VET training in India in the next 20 years. In order to be prepared to respond to these types opportunities we must build our capability to produce mass training technologies that are engaging, globally comprehensible, work-based and network connected to meet quality assessment requirements and training equivalence.

## 2. the solution

The White Card Game facilitates new ways for delivering and assessing vocational education and training through games-based learning. The product enables interactions among teachers, learners and industry, and most critically engages participants by making them active agents in the learning experience. The product is published with Creative Commons licensing and accessible for free via download from a dedicated website. Designed using the Unity3D platform, it is easily published to desktop, console and mobile devices.

## 3. learning impact outcomes

The product effectively guides novice users by offering an embedded tutorial that familiarises students with the system by getting them to play the game. By achieving learning goals at an early stage, users take control and are prepared for more intensive challenges. The product intrinsically scaffolds learning by engaging students in an active goal directed experience, integrating learning and assessment with gameplay and providing responsive real time feedback. In addition the product enables extrinsic learning by fostering peer to peer interaction in the classroom; and empowering teachers through the capacity to facilitate and advise on correct gameplay choices by drawing on their expert knowledge.

The White Card Game enables learning to be contextualized and expertise to develop through cycles of learning and practice, which is especially effective for learners who are disadvantaged in conventional learning environments. The game facilitates active and collaborative learning, with learners overwhelmingly preferring it to traditional delivery methods. In addition students expressed confidence about their understanding of the learning content. The game specifically caters for the learning styles of its targeted VET cohort by providing a hands-on guided experiential learning experience in a context with consequentiality.

## 4. return on investment

Although the product is freely available to training organizations, Government investment in the product will be returned through improved retention and engagement of students in education and subsequent flow on benefits to the economy by meeting the needs of industry and communities.