Virtual worlds for trainee teachers

By JANENE CAREY

Stepping in front of a class for the first time can be a daunting prospect for a trainee teacher.

Simultaneously, they'll be attempting to hit multiple targets - to quash public performance anxiety, to project an aura of calm competence, to exercise crowd control skills - and also to deliver an engaging educational experience.

But what if they could practice in a computerised world before facing the 'sink or swim' challenge of the actual classroom?

Just as pilots try out crash landings in a simulator, and NASA puts astronauts into virtual space in preparation for the real thing, preservice teachers at the University of New England will soon be able to test their professional skills by playing in Second Life.

Sue Gregory is a research fellow with the DEHub, a consortium of universities investigating best practice in distance education.

She heads a team that has received a $220,000 grant to develop VirtualPREX (Virtual Professional Experience), a 3D, multi-user, interactive classroom and playground space in which teachers and students are represented by avatars.

"The beauty of Second Life is that they can practice in a risk-free environment," Mrs Gregory said. "And we'll video the sessions, so the students can look at what they've done and self-assess. Also, we can use it for real assessable tasks before they go out on prac."

The grant will be used to extend previous work by Mrs Gregory and her colleague, Dr Yvonne Masters, Director of Professional Experience at UNE, which involved building a school in Second Life and conducting lessons within it.

They have already created a classroom containing desks, chairs, whiteboard, books, games, and children's drawings on the walls; and a playground complete with swings, sandpit, climbing frame, balls, skipping ropes and even a chess board; as well as avatars to represent themselves and 40 different students.

Sue Gregory's avatar, Jass, is a sassy-looking teacher who is perhaps a little younger than her real self.

Jass sports a stylish suit and a mass of dark wavy hair, both purchased using Linden dollars.

"Linden is a real currency - one US dollar is equivalent to roughly 250 Linden dollars," Mrs Gregory said. "I paid about L$300 for her suit, because I wanted her to look professional. Same with her hair - I tried to find hair that was a bit similar to mine, and it cost about L$200."

Sue's avatar Jass teaching a De Bono workshop in Second Life

Sue Gregory, Lecturer in ICT Education at UNE

Since 2009, Bachelor of Education students have been trialling the virtual classroom and playground - first exploring them as if they were school kids and then participating, via their avatars, in a workshop about Edward de Bono's Six Thinking Hats.

In groups of six, they take on the roles associated with the various coloured hats - informative (white hat), constructive (yellow hat), creative (green hat), cautious (black hat), intuitive (red hat) or reflective (blue hat) - and then discuss how engaging they found the environment for teaching and learning.

Feedback has been mixed - internal students tend to say they prefer face-to-face interaction, but external students are hugely keen.

"They think it's fantastic," Mrs Gregory said. "It gets them together - they don't have the opportunity to do that in real life, so obviously they can see the potential."

The VirtualPREX project will extend the current world so it can be used by preservice teachers, either by themselves or by interacting with other student avatars, to simulate a practicuum in a real school.

A portion of the grant will be spent developing and implementing robot schoolchildren, programmed to react to certain cues by displaying behaviour ranging from quiet and studious to loud, wild and oppositional-defiant.

"We'll do focus groups with teachers to find out how students would respond to a certain sort of teaching, and use the information to create scripts for the robots," Mrs Gregory said.

Dr Torsten Reiners from the Institute of Information Systems, University of Hamburg and Professor Heinz Dreher, Professor of Informatics at Curtin University, will help with the programming.

The robots will be developed first semester next year, and the plan is to start using the system on a trial basis by the beginning of second semester.