Computer game is serious fun

Project KIDS's Mike Anderson watches the first child using the students' new app at Milyaburra school, on tiny Bickerton Island

A group of Computer Science students has spent the semester creating an iPad game, *Alien Invaders.*

But it wasn't just for fun. The iPad app is already being used for psychological testing of children with neurodevelopmental difficulties.

The students are one of 15 groups who have invented or developed original software for specific needs of academics at UWA.

The practical unit, run by Professor Michael Wise from the School of Computer Science and Software Engineering and the School of Chemistry and Biochemistry, throws its students into the real world with real clients who need a system designed for their purposes.

"This year, we sourced projects from UWA academics because there is a such a great need among them," Professor Wise said.

Among the 15 projects, the students, mostly third years, created a virtual microscope (to help new microbiology students to identify parts of a microscope and their functions); a system to measure children's physical activity while playing interactive computer games; and updated and added functionality to a histology learning and teaching resource.

Professor Wise said he was pleased with the results of the projects, in which the students had to manage budgets and communications as well as solve problems and please their clients, all within a strict time framework.

Alien Invaders is an easy-to-use game for children who have motor co-ordination problems and can't use a mouse. The School of Psychology's Project KIDS has been using computer-based games for 18 years to test, measure and record children's abilities. Dr Corrine Reid was the group's client.

"We have worked with more than 2,500 children and have now extended our work to include children with a range of complex health, mental health and learning challenges," said Dr Reid from the School's Neurocognitive Development Unit. "This study, funded by Telethon, will help us understand how things go wrong for children with many life challenges."

She said the unit was now also working with children in remote Indigenous communities in a study funded by the State Government and partnered with the Australian Literacy and Numeracy Foundation. "For both of these projects we needed to design new assessment 'games' that are appealing to a broader range of children with a range of needs and abilities.

"So we worked with the computer group to develop the app to help engage the kids and to make it less reliant on English verbal language skills. The students have been terrific, working with us to design even more child-friendly ways of creating challenging assessment tasks."

Even as the student team was presenting its project to their peers, the Project KIDS team was working with four schools in remote parts of Australia to help them understand some of the learning and literacy challenges of the children.

"The app was evaluated with these children – the first in the country – in the world – to try out this game," Dr Reid said.

The students agreed that, although they faced problems and difficulties, it was a satisfying challenge and they felt proud that their invention was already being used for a worthwhile purpose.