Student develops skills app for pupils

By Odette Parfitt

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An educational mobile application, the brainchild of a Nelson Mandela University student, will soon shape the next generation of software developers in the rural and township schools in the Eastern Cape.

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The still unnamed app, designed by postgraduate student Byron Batteson, can teach pupils basic computer programming principles at primary school level.

This is what makes Batteson's creation – which is his project for honours studies – unique, according to Professor Jean Greyling, his supervisor in the university's department for computing sciences.

"Software development is the scarcest skill in the country at the moment," Greyling said.

"There is a desperate shortage of graduates in programming and this is the ideal tool to take to rural schools for workshops, as it works on cellphones and doesn't require a computer."

The app has a military tank moving through a maze, following directions provided in the form of physical tokens that form a

puzzle.

Batteson said: “The tokens work through image recognition and are laid out as a puzzle of the users’ design and, when photographed, the tank takes its directions from the puzzle.

“I wanted to make something that was free and accessible to all.”

The game has 20 levels, from simple sequences of moving forward, backward, left and right.

However, as the levels become more complex, the puzzle pieces also allow the tank to shoot down obstacles or move around it.

Greyling said: “It is designed for pupils between the ages of 10 and 14, but I know of children aged five and adults over 50 who have played and enjoyed it.

“It teaches teamwork and logic, and can even be used for corporate team building events.”

Though the app is aimed at workshops for schools – with the support of corporate sponsors – Greyling said the app had great commercial export potential.

“Our vision is to export it to America and Europe by this time next year, if not sooner. [You can also] build different games on the same tokens.

“Levels can also be added to the game, and there are a lot [of options] for expansion,” he said.

The first step, however, is an informal launch of the application at the ICT Summit in East London this week.

The app will be introduced to the Neslon Mandela Bay metro at the Christmas in the Home expo on December 1. Batteson said the app was free to download on Androids.

The tokens could be printed on paper, so disadvantaged schools did not have to pay.

The set of 63 tokens would, however, be available for sale, he said.

Greyling said: “The project received a considerable grant from the Technology Innovation Agency, which has made it possible to commercialise the research.

“There are similar games in existence, but none that use programming concepts like this one.”

For more information about the app, interested parties can contact Greyling at Jean.Greyling@mandela.ac.za

Source: Herald