High-powered learning programs in the spotlight on day one of Education Transforms 2017

Tasmanian school students with powerful ideas stole the show on day one of the Peter Underwood Centre's international symposium, Education Transforms 2017.

More than 100 Tasmanian, interstate and international stakeholders in the collective mission to raise educational attainment have gathered for ET 17, a three-day symposium at the Sandy Bay campus of the University of Tasmania.

Students involved in PUC’s Children’s University School Holiday Program provided an impressive robotics demonstration, while Queechy High School’s all-girl Formula 1 in Schools National Champion team delivered a high-powered display.

Teacher Bob Elliott and his collaborator Stuart Thorn, from the Peter Underwood Centre, are introducing primary school students to the excitement of STEM (science, technology, engineering and mathematics) through robotics in primary schools.

Mr Elliott said it was crucial to deliver this experience while the students still had a “sense of wonder”.

“Robotics is an engaging, hands-on way to introduce students to the engineering design process and the world of makers, hopefully moving them from passive learners to becoming creators and self-directed learners,” he said.

“Building a robot from bare metal demystifies technology and opens the door to ‘I can fix it’, ‘I can build it’, and hopefully ‘I want to learn’.”

Mr Elliott, who teaches robotics at Claremont College and has been on the Robotics Tasmania committee for six years, and Mr Thorn, the Coordinator of the Bigger Things Project in the Huon Valley, have helped primary school children around the State build more than 150 Arduino robots.

Mr Elliott said teachers often commented that they had never seen students so engaged, and motivated to push through learning obstacles.
“One previously disengaged primary student said ‘I want to do well in maths and sciences so I can go to uni and become a robotics expert’,” he said.

The F1 in Schools Technology Challenge is an international STEAM (science, technology, engineering, arts and mathematics) competition for school children (aged 11-16), in which groups of three to six students design and manufacture a miniature car. These cars can reach 80km/h along a 25m-track, powered by Co2 canisters.

It is the largest STEM-based competition worldwide, reaching 35,000 Australian students each year and more than nine million students internationally.

Students learn leadership, team building, project management, business planning, public speaking, marketing, collaboration, and writing and presentation skills.

Golden Diversity will represent Australia in the Professional Class at the F1 in Schools World Final in Kuala Lumpur in September. The name Golden Diversity comes from the diverse family origins of each member.

The team of Hollie Johnson, Claire Cameron, Yara Alkahali, Hoai Nguyen, Eleanor Arumugam and Emily Heazlewood spoke about their journey and the way in which meaningful, self-directed learning has empowered them as students and broadened their plans for the future in a presentation to ET17 this morning.

“We are aiming to inspire as many people as we can, with a massive focus on motivating young people, especially young women to exceed their potential in the upcoming leading area of employment, STEAM,” said Resource Manager Eleanor Arumugam.

Peter Underwood Centre Director Professor Natalie Brown said STEM and STEAM programs such as robotics and F1 in Schools were proving their worth in engaging students in learning and the shared goal of raising aspirations for educational attainment.

“Flexible, inclusive learning programs and other strategies for advancing educational attainment in Tasmania are the focus of ET17,” Professor Brown said.

“The symposium brings together academics, educators and community leaders to share strategies and insights, but the key message is that raising educational attainment is in everybody’s interests.”

Launched in February 2015, the Peter Underwood Centre is a partnership between the University of Tasmania and the Tasmanian Government in association with the Office of the Governor of Tasmania.

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