

Potential of Robotics in Rural and Remote Schools

Page Index

[Description](#)
[Participants](#)
[Findings](#)
[Outcomes](#)
[Impact](#)
[Related Documents](#)

Quick Links

[Download Infosheet](#)
[Download Report](#)
[Visit Website](#)

Project Title	Potential of Robotics in Rural and Remote Schools: Professional Development for the Mareeba School Cluster
Project Team	Professor Neil Anderson, Ms Lyn Courtney (SiMERR Queensland), Mr Max Rivett (James Cook University)
Period	March 07 – November 07
Funding Agency	SiMERR
Organisational Base	SiMERR Queensland

Description

[↑ Top](#)

Robotics offers students manipulation of concrete materials in conjunction with the theoretical and practical elements of programming. Research has demonstrated that programming improves students' metacognitive capacity as they develop steps, implement and reflect on the steps after testing. In addition, in conjunction with other new technologies robotics allows students to "create a range of ICT learning solutions developing their understanding, developing their creativity, learning and supporting their thinking processes across or within curriculum areas" (National Statements of Learning, 2006).

The new National Learning Statements emphasise developing students' understandings across or within curriculum areas. Professional learning experiences will demonstrate how the ICT resources in this particular kit facilitate the teaching of environmental science.

This project involved the delivery of professional development (PD) for teachers with respect to robotics. A one-day workshop was delivered to teachers at the Mareeba State School who then provided similar robotics workshops for teachers in the nearby rural school cluster of Walkaman, Bilboohra and Mutchilba State Schools. The project activities targeted important aims outlined in the recent National Statements of Learning for Information Communication Technologies (2006). The aims related to robotics include:

- Learning with ICT to create new understandings;
- Creating ICT solutions by selecting appropriate ICT, generating ideas, planning, monitoring and reflecting;
- Using ICT creatively and imaginatively; and
- Operating a range of current and emerging ICT to support and enhance learning in curriculum areas.

The professional learning included familiarising teachers with the National Statements of Learning for ICT in Years 3, 5 and 7. The aim was that teachers should be able to generalise the implementation of the learning statements in relation to robotics to other aspects of ICT use in the classroom.

The participating teachers subsequently conducted one-day robotics workshops for other teachers in the Mareeba Cluster.

Participants

[↑ Top](#)

Participants consisted of 12 teachers from Mareeba State School and the nearby schools of Walkaman, Bilboohra and Mutchilba, and a group of students from these schools.

Findings

[↑ Top](#)

Teachers reported gains in student interest in robotics, science and mathematics and motivation in participating in robotics competitions.

Outcomes

[↑ Top](#)

A robotics hub has been established between these four schools and they host local robotics competitions. Winners of these competitions are eligible for state, national and international robotics competitions. The equipment remained at the

school to be used in future projects.

Impact

[↑ Top](#)

Teachers and students gained experience and skills in robotics. The literature indicated that student's problem solving skills and learning would increase. While this was not measured in the project, this is an expected impact that could be measured in a future, larger project.

Related documents

[↑ Top](#)

Click [here](#) to download this infosheet.

Click [here](#) to download the report on this project.

Click [here](#) to visit this project's website.

[↑ Top](#)