Science Challenge

Page Index

Description
Participants
Findings
Outcomes
Impact
Related Documents

Quick Links

Download Infosheet
Download Report
Visit Website

Project Title	Science Challenge
Project Team	Dr Gail Chittleborough, Dr Wendy Jobling, Dr Karin Barty, Claire Knight (SiMERR Victoria)
Period	November 2006 – June 2008
Funding Agency	SiMERR
Organisational Base	SiMERR Victoria

Description

Top

As reported in Tytler et al., (2006) rural teachers have less professional development than urban teachers. Despite a teacher from a small remote rural school reporting strong “collegial support” (Tytler et al., 2006. p. 17) there is evidence that teachers in this situation would appreciate the opportunity for more professional development.

Remote locations prevent students from accessing stimulating activities such as excursions and competitions and also limit easy access to resources. Teachers in remote locations may have difficulty finding replacement teachers and attendance may involve extended travel time. Remote locations are in small communities with limited examples and models of career paths and tertiary study (Tytler et al., 2006, p. 19).

This project was designed to create a community of online learners among geographically isolated students from small sized schools and provide opportunities for professionally isolated teachers to share common science lessons. A common website was created and used as the learning forum for the students and teachers, providing each school with a web-space on which to report their results of various science challenges.

The aim of this project is to promote students’ interest in science, provide learning opportunities for students in remote rural locations, increase the pool of students communicating about science concepts, and provide professional development instruction and continuing online support for teachers.

Science challenges, which were motivating and easy to organise, were written for Grades 5- 6. These were outlined in detail on the website for students and teachers. The website was used to support and maintain contact with teachers.

The project has involved eight remote rural schools in a “Science Challenge” targeting Grade 5-6 primary level students. Under the guidance of the classroom teacher and with the aid of information from the website, students undertake a science activity each week and report their findings online through the website. The project started initially in late 2006 when a professional development day was held at Welshpool Primary School for four teachers and then began again in 2008 in response to the time availability of staff and research assistant.

Participants

Top

Eight teachers and their students in rural primary schools in Victoria.

Findings

Top

Despite the large number of primary schools that were classified as small schools (less than 50 children) in remote and regional areas of Victoria who were approached to participate in this project, the uptake of the offer was very small. Feedback indicated that most schools have full curriculum commitments.

The distances in rural areas make it difficult to physically get teachers together in a single day. While one professional development day occurred, some teachers in the same rural area were still not able to attend because the distance was prohibitive – both in time and cost. This highlighted the isolation of some locations.

There has been a lack of continuous and interactive communication on the website. It has not achieved the commitment nor the critical number that was originally expected, however it is currently ongoing with some participation. The lower than expected participation result could be due to a lack of understanding of the time and commitment required and lack of ICT skill level among teachers and children. Another reason could be a lack of participation and monitoring by the researchers which was addressed by appointing an assistant to do this task in 2008. As a result the website has been monitored more

regularly and teachers and students responses are more consistent.

All participants - researchers, teachers and students require time and practice to become familiar with the site and skilled in simple operations of publishing and using the site. It was assumed that all participants would easily develop these skills, but that has not been as easy as first anticipated with more time and practice needed to consolidate these skills.

Outcomes

Top

- Science Challenge site http://www.deakin.edu.au/alt/edsmf/simerr/

Impact

Top

While the project has demonstrated that a website can be used as a learning forum, it has highlighted the necessity for the website to be regularly managed and the need for a critical number of participants for meaningful communication.

One result of this project is a new project called Promoting Effective Small Schools Science: Maximising student and teacher learning. This project is funded by Deakin University and brings together key researchers from both the SiMERR Science Challenge and Leading across Effective Small Schools project (a DEECD funded project). The new project involves five schools in the Shepparton area, which are focusing on learning science. The teachers involved will be invited to participate in the SiMERR Science Challenge.

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Top

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Top