



The National Centre of Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia



## Page Index

**Quick Links** 

## Southern Science Network

**Project Title** Southern Science Network

Project Team Dr Natalie Brown (SiMERR Tasmania), John Gora (teacher,

Hobart College)

July 06 - December 06 Period

Funding Agency **SIMERR** 

Organisational

SiMERR Tasmania Base

**Î** Top Description

Retention rates of rural students in senior secondary education are lower than their metropolitan counterparts. This is particularly true in Tasmania where the lack of access to senior secondary schooling in rural areas means that students often need encouragement to attend college. This situation is further exacerbated when participation rates of students in the sciences at college level are considered. This SiMERR project aimed to encourage students to continue their science education by providing them with an exciting and challenging introduction to science at senior secondary college.

This project provided opportunities for students in Years 8-10 from four southern Tasmanian rural schools to attend a senior secondary college for one or two full days. During this time, students were engaged in a range of extended practical experiences that would not have been available to the students in their secondary schools. Sessions were taken by members of the senior secondary college staff, and focused on one of Physics, Chemistry or Biology. By providing exciting and challenging investigations with a rigorous science foundation the aim was to encourage students to consider studying science at senior secondary and post-secondary levels.

The physics activities included use of data loggers with motion sensors and exploring acceleration using a rolling vehicle. In the latter investigation, students continued data analysis on return to their school. The chemistry component included an exploration of the reactivity series and an introduction to chemical equations and stoichiometric calculations. Dissection of the bovine digestive system was a highlight of the biology activities. College teachers provided high school teachers with copies of the pracs prior to the college visit so they could prepare their students. Considerable effort went into preparing an intense program that mixed fun, 'flash and bangs' with genuine learning. The project was championed and organized by the manager of Science Department.

**Participants** 🕯 Тор

4 schools, 100 students, 4 expert teachers, Department of Education, Tasmania

**Findings** Top

An evaluation of the program was carried out, drawing responses from both students and staff. After analysing the data, it is clear that this project was successful in increasing student interest in the study of senior secondary science. Of the 45 responding students who completed the Physics and Chemistry activities at the college, 30 indicated they were now more likely to consider enrolling in senior secondary science than they were before the experience. Only one student indicated being less likely to enrol. A similar pattern was noted for students attending the Biology activities, however fewer responses were received. Students appreciated the hands-on nature of the activities and the opportunity to undertake investigations that were not possible in their own schools.

Suggestions by the rural students on how to improve the days included involving the College students and having a more balanced mix of Biology, Chemistry and Physics.

Anecdotal evidence from Hobart College teachers in 2007 indicate that enrolment from their rural feeder schools in science and in other areas had increased.

**Outcomes** Top Centre for Science, Information and Communication Technology, and Mathematics Education for Rural and regional Australia, Canberra, ACT.

Impact 1 Top

When the funding ended the program was cut back because of financial constraints, despite being valued by all the schools involved. The value of the project has been supported by the Isolated Children's Parents Association which believes that it is very important to get students out of their local communities and see what else is possible. It takes committed people to stand behind causes, seek funding and make them happen. With the instigator of the program retiring from the school no one stepped up to take over this role. There are issues here in how to facilitate Colleges to run such significant out-reach programs when there is so much competition for time with their own day-to-day business.

Related documents

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**1** <u>Top</u>

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