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

SiMERR

Beginning Teacher Network

Project Title	Using Technology Facilitated Networks for Supporting Beginning Teachers in Mathematics and Science in Rural and Isolated Settings in Western Australia (Beginning Teacher Network)
Project Team	Associate Professor Bill Atweh, Ms Marianne McLaughlin (SiMERR WA)
Period	July 2007 – June 2008
Funding Agency	SiMERR
Organisational Base	SiMERR WA

Description ⬆ Top

This project was designed to explore the potential for the use of new technologies to facilitate a support system for beginning teachers in remote areas. The first year of teaching is an important phase in any teacher's professional growth because the school and classroom experiences of beginning teachers may either encourage or inhibit a lasting commitment to effective teaching. It is therefore important that educators examine ways of providing support for beginning teachers, to foster their professional growth so that they can acquire the expertise and confidence to be effective teachers. Beginning teachers in non-metropolitan schools do not have easy access to 'people' resources such as workshops, peer collaboration, ongoing mentoring, or informal face-to-face discussions. Further, opportunities for professional development are not necessarily focused on the unique personal, professional and contextual needs of a novice teacher in a rural or remote location. The network system of this project is designed to address this issue by enabling 'people' resources to be accessed regularly by teachers in rural and remote areas.

The project established a 'cell', consisting of one experienced teacher and two or three beginning teachers, in two non-metropolitan school districts. Elluminate software was used as the main communication tool, and an action learning/research approach guided the activities conducted within each cell. Cell members identified their concerns and learning needs and then worked collaboratively and self-reflectively, with support from the more experienced teacher, to plan and implement activities to address these needs. Specifically, the project aimed to:

- facilitate a collaborative partnership between a group of beginning teachers and more experienced teachers and university academics, in order to establish and examine supportive structures for their induction into school teaching; and
- investigate the use of interactive technology to provide support for teachers in rural and isolated settings.

Workshops were conducted at both schools to: facilitate the formation of action cells; to discuss and establish modes of communication between participants; and to discuss potential activities to be conducted as part of the project. Teleconferences were conducted between the research team and the teachers involved. Unfortunately the use of telecommunications and the Elluminate software had to be replaced by telephone contact due to issues with the schools' internet connections. One school activity was conducted to encourage and facilitate greater community involvement with the school. In addition, four projects were designed and successfully conducted – three in mathematics at the primary school, and one in science at the secondary school.

Participants ⬆ Top

Two schools participated in the project. One, a public school in an Indigenous community, involved one primary and one secondary teacher participating as beginning teachers, with the school Principal acting as mentor. The second school, in the north of Western Australia, involved three beginning teacher participants, with the Principal and two deputy principals providing support.

Findings ⬆ Top

A full analysis of the data has not yet been completed. However, some of the observations that can be made at this stage are as follows:

- Contact with outsiders during the first year is very valuable for teachers. Many rural schools suffer from lack of

professional development and projects such as this provide great moral support for teachers, alleviating some of isolation that they feel. However, the project also raises issues regarding the use of new technologies in remote areas, noting that sufficient and appropriate technical support is essential;

- Many beginning teachers who are appointed to rural schools with significant numbers of Indigenous students feel unprepared to deal with issues such as cultural relevance and community involvement. Further, the frequent changes in staff from those schools make community involvement very problematic; and

- Time pressures are a real issue for teachers in their first year. The day to day survival needs of managing their classes can be overwhelming, meaning that less time is available for professional development regarding curriculum changes and different ways of teaching.

Outcomes

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The teachers involved in the project have been able, with support from 'cell' mentors, to develop activities that challenge and extend the usual way in which teaching mathematics and science are traditionally taught in schools, in particular making them more relevant to their local context.

Data has been generated to allow for publications of journal articles about meeting the professional development needs of beginning teachers at remote and rural schools. Data on the work and needs of teachers in rural schools from this project will be combined with data from a project of Socially Response-able Mathematics Education currently being conducted by the first author. Publications from both projects will be developed in 2009.

Impact

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This project has demonstrated that with appropriate support beginner teachers in remote areas are able to approach mathematics and science education in ways which are more relevant to the local cultural context and conditions.

The project provides insight into the problems and concerns of teachers in more isolated and remote regions, and provides practical ideas for supporting their professional development. The final findings will also address the unique contextual, pedagogical, and other professional learning needs of novice teachers in non-metropolitan schools.

Related documents

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