Parents' Views

Page Index

Description
Participants
Findings
Outcomes
Impact
Related Documents

Quick Links

Download Infosheet
Download Report
Visit Website

Project Title	Parents' Views and Value for the Study of Mathematics and Science
Project Team	Dr Helen Boon (SiMERR Queensland), Matilda Loban, James Munro (James Cook University)
Period	October 07 – March 08
Funding Agency	SiMERR
Organisational Base	SiMERR Queensland

Description

Top

The purpose of the research was to investigate the knowledge and value of Indigenous and non-Indigenous parents of students entering secondary school for the study of science and mathematics. These are to be compared and contrasted with a view to providing a program to promote the study of science at secondary level by informing and helping parents support and encourage their children's application to study, subject selection and career aspirations.

Parents of Year 7 students, going into Year 8, from three regional Townsville schools were surveyed about their knowledge, understanding and perception of the value of science and mathematics education. The survey was constructed after consultation with parents from selected primary schools in regional Queensland, through focus group interviews. Indigenous and non-Indigenous parents were interviewed separately and their views condensed into questions for the survey phase of the study.

Participants

Top

124 parents responded to the survey and nine parents (five Indigenous and four non-Indigenous) attended focus group interviews.

Findings

Top

Although it is acknowledged that there is always the possibility that a gulf exists between reported attitudes and beliefs and ultimate actions (Ajzen & Fishbein 1980), results reported here provide valuable new empirical evidence about parents' attitudes to science education and the importance they place upon it for preparing their children for informed citizenship. The study highlights a new model outlining the interplay between parental science proficiency, their value for science education, perceived practical contingencies and their endorsement of the study of science for their children.

Qualitative data were used to inform the survey instrument which in turn provided the means of testing the generalisability of the focus interview data as well as a priori determined questions. Since 80% of all parents hoped their child would go on to university one may assume that they would support post-compulsory education for their children; indeed seven out of ten parents endorsed the study of science subjects. A major finding was their endorsement of geography, history, social studies or SOSE as a better preparation of their children for informed citizenship than science, for issues such as climate change, nuclear power and genetic cloning.

Results showed a proportion of parents were not clear about the role of science and the interrelationship between science and technology. This might be anticipated given the changes in science curricula since the 80s in an effort to make "science for all" (Fensham, 2002). It highlights an urgent need for parents to be better informed about current science curricula. Results replicated Australia-wide parental views ranking science below mathematics and English in importance (DEST, 2007). Parents believe success in maths is more important than success in science for their child's future, a result also echoed by US parents (Kadlec, Friedman & Ott, 2007). Therefore, they are perhaps more likely to muster support for their children when they experience difficulties in maths than if they are struggling with science. If this is the case, students are themselves less likely to be as engaged and motivated to succeed in science.

Another finding was the perceived lack of employment prospects for science graduates and the notion that university training was expensive, both reasonable practical considerations for parents thinking about supporting their children's career choices.

The model, accounting for 56% of variance in parental endorsement of the importance of science study, shows the strong

influence that parental scientific competence has upon their view of science as relevant and instrumental to the future success of their child. On the other hand, the model also illustrates that positive science beliefs, independently of science proficiency, can predict support for the study of science. How can these beliefs be augmented? School level intervention engaging students and parents might be one way of helping this.

Outcomes

Top

A paper has been written and is under review currently with a science education journal.

Impact

Top

As a result of the paper it is anticipated that there will be more research sparked to explore the nature of public understanding of science and careers in science related fields and the nature of parental support for science. The state on scientific literacy understanding in regional Australia will also become clearer, perhaps prompting curriculum and pedagogical changes.

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