



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



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Successful Indigenous Scientists

Project Title Successful Indigenous Scientists: Inverting the Coconut Project Team Dr David Lake, Mr Max Lenoy (SiMERR Queensland)

Period July 07 – Incomplete

Funding Agency SiMERR

Organisational Base SiMERR Queensland

Description 1 Top

This project involved an investigation of indigenous scientists' perceptions of what they needed to succeed in studying science. Five male and five female indigenous scientists have been interviewed about their experiences as students including:

- The strengths they had;
- Adaptations they felt they had to make;
- Aspects of science they felt were hardest;
- Strategies they employed to overcome the difficulties;
- What they would have done differently;
- What they would recommend to young indigenous students;
- Their recommendations to science teachers of Indigenous students; and
- Their recommendations for policy to enhance Indigenous performance in science.

Participants 1 Top

Participants were 10 indigenous scientists. Participants were drawn from a range of sciences: engineering, medicine, pharmacy and biological sciences from academic, governmental and industrial backgrounds. The participants ranged in experience level from university students in their last year of study, new graduates and experienced professionals.

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Initial results suggest that the 5E (engage, explore, explain, elaborate and evaluate) model, which has been widely adopted around Australia, may not be socially appropriate in classes with indigenous students. For example, probing questions at various stages can be foreign and confronting to indigenous students. Also, the 5E model draws heavily on public display of group work to the embarrassment of indigenous students, for whom this can be tantamount to boasting. The study is also uncovering incidences of racism, which have led to indigenous students being forced to work together in a group where more able students have needed to conform to the lower expectations of their peers.

Impact 1 Top

The impact of this program would be to advance an alternative, culturally appropriate model of teaching science to indigenous students.

Related documents

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