



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



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## Maths as a Cultural Practice

Project Title Maths as a Cultural Practice in Remote Aboriginal

Communities and Their Schools

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University)

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Funding Agency SiMERR
Organisational

Base

SIMERR NT

A Maths as a Cultural Practice workshop was held at Charles Darwin University in Darwin, in April 2007. A team of senior bicultural bilingual Yolngu (north east Arnhemland Aboriginal) consultants was brought together to reflect upon the use of western mathematics in everyday Aboriginal community life, and its relation to traditional practices which are often referred to as 'Yolngu mathematics'. The complex relations between the two sets of 'mathematics' practices and the range of traditional and emerging pedagogic strategies which are available in conventional classrooms to deal with them were discussed collaboratively. Community mathematics practices commonly range from ancestral practices mapping order and value on to everyday life, to practices involving western mathematics – calculations over space, volume, money and so forth.

The discussions included attention to the many ways in which languages (English and vernacular) are engaged to do the work of mathematics and mathematics teaching, and attention to Indigenous mathematics teacher education.

Discussion and analysis of emerging agreement and divergence is ongoing, as the consultants who have returned to their remote communities, continue to provide feedback on the website which has been set up as our forum. This can be viewed at <a href="https://www.cdu.edu.au/macp">www.cdu.edu.au/macp</a>.

Participants 1 Top

Dhängal Gurruwiwi, consultant, Gunyanara community, Frank Djirrimbilpilwuy, Chairperson, Milingimbi Council, Gapany, teacher, Shepherdson College, Galiwin'ku with her grandson, Gothadjaka, elder, Gäwa homeland centre, Elcho Island, Gurrangurran, teacher, Gäwa homeland centre, Maratja Dhamarrandji, translator and interpreter, Galiwin'ku, Margaret Nyununyunu, language worker, Milingimbi, Rose Lanybalanyba, Aboriginal Interpreter Service, Darwin, Waymamba Gaykamanu – lecturer, Yolnu studies, CDU, and Wulumdhuna Yunupinu, teacher, Djurrunalpi homeland centre.

Findings 1 Top

- Yolngu have their own system of mathematics embedded and embodied in Yolngu life.
- Balanda numbers play an important role in Yolngu life.
- Yolngu children need to have their own 'foundations' in place before they can benefit from Balanda maths.
- We best embed our classroom maths pedagogy in those aspects of Yolngu life which are already ordered through balanda number.
- Good Yolngu maths education keeps hold of the ethics which are central to all Yolngu education.
- Pedagogy should focus on numbers as embodied and embedded generalizations, not as cognitive concepts.

Outcomes Top

- Key outcomes were a report to the SiMERR National Summit in Canberra, November 2007.
- The poster for the SiMERR conference has been widely distributed in Yolngu communities and other places.

Impact 1 Top

The team of Yolŋu consultants working on the project have continued to work towards implementing the recommendations of the workshop, particularly those to do with embedding the mathematics work of the classroom in the routines practices of everyday community life which involve the use of English numbers. Another community workshop was held in early 2008 at Galiwin'ku to further the discussions of the implications of this for classroom teaching and curriculum.

Related documents

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