



MAKE IT COUNT

mathematicians...



...in the making

## Numeracy, mathematics and Indigenous learners

Welcome to our fourth newsletter for *Make it count*. The project is growing and we now have nearly 200 members from across Australia in our online learning community. To promote this community, *Make it count* will be having an exhibition at the ACER conference in Melbourne on 16-17 August where over 800 mathematics educators will be in attendance. This newsletter invites readers to join discussions about what makes a great mathematics teacher of Aboriginal and Torres Strait Islander students; also look for our panel discussion about the crucial intersection between the classroom and home through community engagement.

### IN BRIEF

#### CLUSTER LEADERS MEET

The eight Cluster Leaders will be meeting in Sydney during August to discuss progress in the project so far and the next stage of *Make it count*. Cindy Berwick, President NSW Aboriginal Education Consultative Goup, Dr Chris Matthews, Project Patron and Emeritus Professor Paul Hughes will also be participating.

#### FROM THE CLUSTERS

**Alberton:** real-life connections to maths; teacher reflection journals as part of collecting data

**Culunga:** *First Steps in Mathematics* (FSIM) training & resource making with Education s, Indigenous Education Workers and teachers.

**Gladstone:** Cluster day with mathematics maestro Charles Lovitt and classroom demonstrations.

**Healesville:** workshops with Associate Professor Henry Atkinson in cultural competency & Professor Peter Sullivan in mathematics.

**Hebersham:** Carol Spender workshops in mathematics

**Nerang:** Indigenous maths & culture camp Cluster cultural competency PD day.

**Noarlunga:** developing & trialing sequenced, explicit lessons in place value & multiplicative thinking

**Orange:** workshops with Dr Tyson Yungaporta and using story to teach mathematics through the [8-ways model](#).

### Great maths teachers matter to Aboriginal & Torres Strait Islander students

‘Teacher quality is the single most important school factor in student success.’ How often do we hear that these days and what does it mean for the teaching of mathematics with Indigenous learners?

This question is at the very heart of the work of the eight *Make it count* Clusters as they discuss, develop, trial and critically reflect on possible new pedagogical territory<sup>1</sup> that might make a difference to the mathematics and numeracy outcomes of their learners.

The educators in these Clusters are rethinking and constantly developing their pedagogy, they are building an evidence base that supports their ‘new pedagogical territory’, they belong to professional learning communities where they are talking about ideas and teaching that are responsive to their students and their students’ needs.

Underpinning any new learning is the development of guiding principles which might include:

- taking specific actions to find out what students know, and build on that

knowledge

- engaging students by building on students’ stories
- engaging students by allowing them opportunities to make decisions about aspects of their learning.

While Clusters are putting their mathematics pedagogy under the microscope, they are also weighing up what a balanced mathematics program should look like. Some are focussing on investigative learning through rich problem solving tasks while others are concentrating on explicit, scaffolded teaching of mathematics, and others still on contextualising mathematics and connecting to real life.

Whatever their focus, these educators know that mathematics is a gatekeeper to lifetime opportunities and they are attempting to open this gate by developing cultural and pedagogical competence that is responsive to their Indigenous students.

You can join a [discussion](#) about what makes a great maths teacher: go to <http://aamt-makeitcountnetwork.ning.com>.

*Teacher quality is the single most important school factor in student success.*

### Charles Lovitt in Gladstone

Recently the Gladstone Cluster of schools in Queensland had that ‘mathematics maestro’ Charles Lovitt work with them. The Cluster held a pupil free day with Indigenous leader Melody Ingra kicking off proceedings with a challenge to schools to improve community engagement. Charles then

led sessions focussing on an investigative approach to teaching mathematics through the [maths300](#) resource.

Dr Peter Grootenboer from Griffith University also ran workshops on the day.

The culmination to the day was an informal session with prominent Community Elders.





**Cluster Critical Friends and Evaluators meet**

The Clusters' Critical Friends and the *Make it count* evaluators attending the recent Mathematics Education Research Group of Australasia (MERGA) conference in Fremantle came together to discuss the project. Keith Truscott, a Larrakia/Antakarinya man and lecturer from Edith Cowan University spoke to the group about ethics in working with Indigenous communities.



Cluster Critical Friends & Evaluators with Project Patron Dr Chris Matthews

Robert Somerville AM, a Martu man and Director of Aboriginal Education in WA gave a thought

provoking update about Indigenous education across the country.

The Project Patron, Dr Chris Matthews, told his story about his experiences in mathematics in school and gave participants a valuable insight into the many challenges confronting Indigenous students and their teachers.

The meeting was an important step in the project and played a key role in informing researchers in their work with Indigenous communities across Australia.

**Nerang maths & culture camp**

The *Make it count* Nerang Cluster recently held a very successful camp for their Years 5-9 Indigenous students at Currumbin Park near the Gold Coast. The Cluster's goal was to connect mathematics with culture and, with Elders and leaders from communities and Project Patron Dr Chris Matthews



Community Elders Aunty Pat Leavy, Aunty Isobel Kent, Dr Chris Matthews (Project Patron) & Kargun Fogarty

helping them, they switched students on to mathematics through a variety of cultural immersion activities. When

students were building homes from branches and bark, they were engaged in conversations about size, angles, symmetry, stability, capacity, measurement and shape and where numeracy became mathematics and mathematics became numeracy.

The Cluster has paved the way for some potentially very interesting developments in the teaching of mathematics in their schools.

**Community engagement panel—join the discussion**

As part of the *Make it count* project a video of a panel discussion about community engagement in mathematics is being developed as a resource to stimulate discussion and deeper thinking in schools to improve the mathematics and numeracy outcomes of their Indigenous learners.

The panel will consist of highly skilled people in the field. They are Leanne Carragher from the NSW DET Aboriginal Education Directorate; Kevin Lowe, Inspector Aboriginal Education in the NSW Office of the Board of Studies; Associate Professor Peter Howard from the Australian Catholic University; and

Harry Langes from Gilgandra High School in NSW.

Discussion will relate to school-based approaches to community engagement; and at a system's level with the research to support these.

The video will be uploaded to the *Make it count* network ning as a prelude to an online discussion between network members and panel members. (This ning is a professional online learning community for educators across Australia to communicate and collaborate to improve the mathematics and numeracy outcomes of Indigenous students.)

Ning members will be alerted to the

**NETWORKED LEARNING COMMUNITY**

*Make it count* is building a national, online network of leaders, teachers and Indigenous educators to communicate and collaborate online. Join in on discussions about data collection; use of technology and; culturally responsive pedagogy and more. Go to:

<http://aamt-makeitcountnetwork.ning.com>

**RESOURCES & READINGS**

Warren, E. & de Vries, E. (2010). *Young Australian Indigenous students: Engagement with mathematics in the early years*, AAMT Inc.

<http://makeitcount.aamt.edu.au/content/download/16195/218213/file/apmc15-1-warren.pdf>

**For previous newsletters:** <http://makeitcount.aamt.edu.au/Documents> or email Melinda at: [admin@aamt.edu.au](mailto:admin@aamt.edu.au)

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event and invited to watch the video and then participate in the online discussion with panel members. This will allow members to ask any clarifying questions of the panel and participate in what is hoped to be a valuable learning experience.

To find out more about this event go to: <http://aamt-makeitcountnetwork.ning.com>.

