



The Australian Association of Mathematics Teachers Inc.

Response to the MCEECDYA Draft Indigenous Education Action Plan 2010-2014

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Introduction

The response from the Australian Association of Mathematics Teachers Inc. relates to aspects in Sections 1, 2, 4 and 5 of the Draft Action Plan. It is in three sections:

1. A Preamble that includes some important general comments
2. Specific comments and feedback on the Draft Action Plan.
3. Identification of the ways in which the work of the AAMT's *Make it count* project are aligned with the Draft Action Plan.

1. Preamble

The AAMT believes that an Action Plan is needed to ensure coordinated and efficient effort to achieve the ambitious and necessary targets set by COAG in relation to closing the gap between the life outcomes on Indigenous and non-Indigenous Australians. Our members understand that ensuring Indigenous students' achievement in mathematics and numeracy at school is an important aspect of schooling that will contribute to closing the gap.

The AAMT notes the arrangements being put in place in relation to making clear the expectations for the 'evidence base' within the *Literacy and Numeracy National Partnerships*. Careful application of these criteria will be an important means for quality assurance of that program. The Draft Action Plan specifies Performance indicators. The AAMT suggests that, in general, these be further specified to ensure transparent accountability. In relation to mathematics and numeracy – the AAMT's core area of concern and expertise – the Association suggests that criteria for evidence based success may be built from those to be developed for the *Literacy and Numeracy National Partnerships*. The AAMT is happy to contribute to MCEECDYA's efforts to help ensure the rigour of the work in numeracy and mathematics undertaken as part of the Action Plan.

The AAMT has undertaken a range of actions to assist the quality of teaching and Indigenous students' learning in mathematics and numeracy over the past decade or more. In 2009, the Association established a four year project entitled *Make it count: numeracy, mathematics and Indigenous learners* with funding from the Australian Government as part of the *Closing the Gap* initiative. As a result, the AAMT's comments and feedback on the Draft Action Plan are framed by the ways in which *Make it count* relates to the Draft Action Plan. In short, there is a great deal of consistency between the actions underway and planned in *Make it count* and what is proposed in the Draft Action Plan.

2. Specific comments on the Draft Action Plan

1. P. 4 refers to 'the local level that will make the most difference in closing the gap'. Mention could be made here of the need for coordination and collaboration between schools and communities that supports local action (ie 'think globally, act locally') as outlined in 3.1.ii below.
2. P. 7 says that 'recent research indicates that Indigenous children start school at a significant disadvantage. Nineteen per cent of Indigenous students were rated as 'far below age level' in academic performance and 39 per cent were 'somewhat below age'. Care needs to be taken that this does not necessarily mean that these children are not coming to school with other strengths of knowledge that are not recognized or easily identified. Indeed there is a sense in which this domain should be re-envisioned to include readiness of schools to capitalise on the knowledges that these children do

have on entry to school. In fact there is evidence¹ that Indigenous children who attend preschool appear to be moving forward in comparable fashion with their non-Indigenous peers prior to formal schooling but this success is not continued in the school system.

3. There is only one Performance indicator on P. 7. In the other sections there is a performance indicator for each of the Targets. In this case there is no Performance indicator relating to 'quality' of outcomes in the 'five developmental domains' resulting from pre-school engagement of Indigenous children. Would it be possible to develop a suitable Performance indicator?
4. P. 8 is an instance in which systemic and school-level actions will need effective quality assurance (see actions 6 & 7). The AAMT is able to provide highly credible input and advice to those aspects of these activities that have to do with numeracy and will be pleased to contribute in this way.
5. P. 15 mentions 'cultures of learning that are inclusive of Indigenous students'. Consideration could be given to the notion of co-creation of new knowledge which supports the development of cultural competency in teachers and students.
6. Action 28, P. 16 should be about development of cultural competency in **all** young Australians and not just about learning about, acknowledging and valuing the cultures of Aboriginal peoples and Torres Strait Islanders. That is, work in this domain needs to be stronger and more rigorous.
7. Action 31, P. 16 – education systems and employers can mandate such professional learning; 'ensure the provision of' seems to not go far enough.
8. Action 32, P. 16 could be more specific ie 'knowledge and understanding of the learning needs of Indigenous students in numeracy and literacy'.
9. Action 41, P. 18: There is a need for mentoring of students to focus on academic inclusion ie mentoring students to become mathematicians, scientists etc. and not just sportspeople.

3. How the activities and approach of *Make it count* supports the Plan

1. The Overview of the Indigenous Education Action Plan says it will 'introduce innovative reforms...improving teacher quality' (P. 3). This is supported by *Make it count* as outlined in the project's key objectives and reflected in the Clusters' project briefs:
 - i. Develop whole school approaches to mathematics and numeracy that result in markedly improved achievement by Indigenous students.
 - ii. Build networks and communities of practice that are committed to, and expert in,

¹ Raban, B, Griffin, P, Coates, H & Flear, M 2002, Profiling preschool literacy: evidence of Indigenous children's capabilities, *Journal of Australian Research in Early Childhood Education*, vol. 9, no. 1.

teaching and school practices proven to be effective in supporting Indigenous students' learning of mathematics and numeracy.

2. On P. 6 where the four chapters of the Plan are outlined, the fourth point refers to 'sharing research and good practice across education providers and with the public'. This is supported by the *Make it count* project and especially the online learning community *ning* that has been created.
3. Re 'the six principles for the delivery of programs and services to Indigenous Australians agreed under the National Indigenous Reform Agreement' (P. 4), the work of *Make it count* certainly resonates here including 'engagement with Indigenous parents' and the 'Sustainability principle.
4. *Make it count* is working where the majority of Aboriginal students are, that is, regional and urban areas. Figures stated in the plan are that about 86% of Indigenous students are in these environments.
5. Reference is made to an Educators' Guide (P. 8) in relation to the Early Years Learning Framework and supporting the cultural competence of early childhood educators. It is not possible to determine the usefulness of this guide in relation to numeracy development
6. P. 9: 'validation of Indigenous cultures by schools' is what *Make it count* is attempting to do in mathematics and numeracy education. The challenge is how we do this so that it is rigorous and provides opportunities for academic inclusion of Indigenous learners.
7. Personalised learning plans for Indigenous students are mentioned several times throughout the Plan. Many of the Clusters are developing these to support the learning of their students. *Make it count* needs to have a strong sense of what this could look like in mathematics education and consider connecting it with Electronic Student Portfolios (Alberton PS). These ESPs offer a great way of reporting to families and communities on Indigenous student outcomes.
8. Literacy and Numeracy (P. 10) discusses 'piloting new approaches to teaching literacy and numeracy to Indigenous students and sharing the evidence from these pilots'. The Clusters will in time begin to share their work through conferences, workshops and online.
9. In regard to data, *Make it count* will be using NAPLAN data as its headline data as requested by DEEWR and will be using other data for evaluation (P. 13).
10. *Make it count* has developed a website which includes resources and strategies that promote good practice. The online learning communities, ie the cluster *ning* and the national *ning* will continue to provide 'effective, evidence-based numeracy strategies support the sharing of best practice (Action 23, P. 13).
11. A number of Clusters are working towards the development of 'intensive, scaffolded, structured and age-relevant teaching to accelerate learning' (P. 14) in numeracy and mathematics education. Note that this is part of an integrated approach to numbers

that teaches their purpose, use and applications, representation (symbolic and text) and interpretation in context.

12. Action 33, P. 16 refers to 'culturally authenticated research that can directly inform classroom pedagogy'. *Make it count* is doing this with the project's Critical Friends who are recognised experts in Indigenous educators and/or mathematics educators. Further to this, P. 36 says 'schools staff will be better supported to collect quality data and analyse and use data to inform strategies and actions. This is one of the strategies the project's Critical Friends have in working with *Make it count* educators.
13. Action 38, P. 16: *Make it count* Cluster approach supports the partnering 'with other schools to share resources and facilities, develop joint initiatives and provide peer mentoring and support'.
14. Action 41, P. 18 refers to student mentoring which is seen as a possible strategy in a number of Clusters. Mentoring programs have previously focused on social and cultural inclusion whereas *Make it count* is also focusing on academic inclusion.
15. P. 35: *Make it count* will be supporting *What Works* in relevant resources for the national clearinghouse on what works.