AAMT Response the the Draft National Professional Standards

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Background

The Australian Association of Mathematics Teachers Inc. (AAMT) welcomes the opportunity to comment to the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) on the Draft National Professional Standards. The AAMT is proud to have played what is considered by many to be a leading role in this country in a range of aspects of work on and with professional standards for teaching for more than a decade. For a recent overview of that work see Morony (2009).

These comments on the Draft National Professional Standards are based on the AAMT's own professional standards document, *Standards for Excellence in Teaching Mathematics in Australian Schools (Standards)* (AAMT, 2002 and updated 2006) and our experience in utilising that document. Since 2002, the AAMT has used the *Standards* both as the support for school-based mathematics professional development programs and as the basis for an effective process for assessing whether volunteer teachers can provide evidence that they meet the *Standards*. Those who are successful are awarded the credential of *Highly Accomplished Teacher of Mathematics* (HAToM) by the AAMT.

In other words, the AAMT is in the unique position of having developed and implemented professional standards in the 'highly accomplished' area for mathematics over a number of years[1]. Our input to this consultation is informed by that experience. Moreover, the association appreciates the value and usefulness of professional teaching standards in supporting the professionalism of teachers on mathematics.

The AAMT's notes that statements of teaching standards are already in place across the nation, based largely on the previous framework developed by MCEETYA around 2003. It is clear that the existence of these standards has strongly influenced the format and content of the Draft National Professional Standards (e.g. the document from the NSW Institute of Teaching (NSWIT) can easily be mapped onto the present draft). Note also that the AAMT does not believe its *Standards* are perfect; indeed in 2006 a process to review and redevelop the *Standards* was deferred pending the work on standards that was undertaken by Teaching Australia. The AAMT would hope to be able to develop its *Standards* in the light of the finalisation of these National Professional Standards and decisions about associated processes.

1 See Brinkworth (2004) and Bishop et al (2006) for formal evaluations of two major projects on the use of the AAMT *Standards*.

Executive Summary

A national approach to teaching standards can incorporate and build on the Australian Association of Mathematics Teacher's (AAMT) work in the area of highly accomplished teachers of mathematics and, can be extended to apply to teachers with high level skills in any teaching specialisation. The development of a framework of standards is a necessary first step in the process of establishing a national approach. Whilst we recommend improvements in the Draft National Professional Standards, we believe the document can be developed into a useable framework that serves the interests of education in this country.

Furthermore, we argue that establishing the agreed national framework is an important and urgent task. Through our work with professional teaching standards, the AAMT has practical experience of their value to the professional lives of teachers. They provide teachers with a language for discussing their work, and a means for setting and monitoring targets for professional learning for individuals and groups. That the standards that emerge from this process will be used in nationally consistent ways is, in our view, a very positive development.

The AAMT notes that the Domains adopted in the Draft National Professional Standards are similar to those used in the association's own *Standards for Excellence in Teaching Mathematics in Australian Schools* (AAMT, 2002 and 2006). Further, the seven Standards in the document cover much the same broad territory in teaching as the AAMT *Standards*.

In addition, the decade since the initial work to develop the AAMT *Standards* has seen significant growth in understanding and implementation of 'distributed leadership' and 'teacher as leader'. The developments are captured in the Highly Accomplished level of the Draft National Professional Standards[2]. In this respect, the Draft is an improvement on what the AAMT currently has and we hope to revise our *Standards* to encapsulate better the contemporary thinking about teachers as 'leaders' who share with, and influence, colleagues (especially, but not only, through mentoring less experienced ones).

The document foreshadows 'substantial support materials'. The AAMT's current work in the Highly Accomplished area fits between this supplementary material and the processes for implementation. Further supplementary material that would help strengthen mathematics teaching in our schools could elaborate the 'specialisation' of teacher of mathematics for the Graduate and Proficient levels. Greater specification of expectations on teachers, in terms of their teaching of mathematics, would be helpful, and the AAMT would be willing to contribute to such efforts.

The AAMT recommends that the following actions be taken in revising the Draft National Professional Standards:

1. Link the Descriptors more directly to the over-arching purpose of efforts to maximise student learning, as expressed in the Melbourne Declaration.
2. The language of the Preamble should be made more precise and direct in relation to the uses of the National Professional Standards as they are currently known in terms of COAG agreements and other policy directions; the Preamble should also refer to the work to implement practical arrangements for using standards at the Highly Accomplished level by the AAMT and other professional associations.
3. Change the architecture to have three levels – Graduate, Proficient and Highly Accomplished; reconceptualise the Lead level as the first stage in a sequence of standards for school leaders; and describe the Lead level in such a way that achievement of the Highly Accomplished level is not a prerequisite.
4. Do not repeat expectations from level to level when the standards are presented in this side-by-side format[3].
5. Reduce the number of descriptors from the current forty-two by merging those that cover similar territory, thereby presenting a more holistic, connected view of teaching at each level.

[2] This was also the case with the Capabilities developed in 2008 by Teaching Australia.

[3] This 'assumed' content for levels above Graduate will of course need to be included if the standards for these levels are printed singly. Electronic publication that provides these sorts of options are in place on the ACARA website as a model.

6. Recognising that teachers' knowledge, skills and practices *will* be assessed against the standards (whether by teachers as part of their professional reflection to inform improvement or in some other more formal process) it is necessary to use language that better allows for that assessment to occur holistically, and with greater precision than is currently the case with the Draft National Professional Standards.

These recommendations are elaborated below. Some other observations and more specific suggestions are also made.

1. Student learning as the underlying purpose

Underpinning all of the AAMT's work to support the teaching and learning of mathematics is a primary focus on the following extract from Goal 2 of the Melbourne Declaration :

> *all young Australians become successful learners.*

It is clear that students' satisfaction with their learning experiences during schooling, and achievement of resulting learning outcomes that they are proud of and feel prepare them well for further learning, constitute the greatest single factor in achieving this Goal. Consequently, the ways in which the Draft addresses the importance of the progressive successful development of satisfactory student learning outcomes as underpinning the statement of each Standard, through its Descriptors, is a major criterion influencing AAMT's response.

The AAMT considers that there is a generic weakness in many Descriptor statements. The link between the content of the Descriptor, and its relationship to the above criterion from the Melbourne Declaration, should be direct. This is perhaps best done by a single comment accompanying the title of each Standard. This statement should answer the question "In what way does each Standard, and each Descriptor, show that its purpose is to assist the teacher to use them effectively to achieve and enhance student learning outcomes?"

2. The Preamble

The writers should make sure that the Preamble reflects the agreements about teaching, teachers and standards that are in place through COAG and other national decision makers, and in the policies of governments. In particular, the current language about their use is unnecessarily vague. Moreover, it will not serve to reassure teachers – it will actually heighten concerns and suspicions of teachers in these areas. This will prevent many from engaging with the National Professional Standards as a positive contribution and guide for their professional advancement.

It is the AAMT's experience that teachers will accept in principle statements around the reason and purposes for teaching standards. These generally take the form of 'describe what we do', 'increased professionalism', 'support professional discussion' and 'characteristic of a "mature" profession' and so on. Teachers have largely accepted the importance of expectations, including standards and their use, for 'regulatory' purposes – entry to the profession (Graduate qualifications) and registration/licence to teach (Proficient or equivalent standards). Current practices see more and more of them engaging with and accepting processes for re-registration on a regular basis (e.g. 100 hours of PD over 5 years etc.)

It is the use of higher levels of standards that raises questions for most teachers. The Preamble needs to explicitly say what the Highly Accomplished level standards are to be used for. Most important among these is that there will be a strong push for these standards to be part of a career and salary structure, and this is not expressly addressed in the Draft [4].

For the AAMT the Preamble is also vague about how our work – products and practices – will fit with the eventual National Professional Standards. The Draft refers to the National Professional Standards as 'a structure within which professional associations can align their descriptions of teaching practice'. This is a useful staring point. However, the AAMT has much more than such a 'description'. The AAMT has processes for using our *Standards* in the arena of Highly Accomplished teachers that have been evaluated and are in use now. These are processes for using the AAMT *Standards* for professional development purposes, and to assess and credential teachers. We would expect these processes will also be able to be 'aligned' with the processes for using the National Professional Standards. An express statement along these lines should be made in the Preamble.

3. *Highly Accomplished* and *Lead* levels

AAMT notes that some existing standards documents distinguish between Highly Accomplished and Lead levels. However, there is a need to recognise that now ***all*** teachers in schools are expected to participate in collegial exchange to help each other find ways of addressing teaching

[4] Note that the AAMT takes the view that, if teachers of mathematics are to be paid more for higher level skills, then its *Standards* and rigorous assessment process – or some version of these – could be a pathway in a general salary structure of this kind.

issues. These often emerge through critical self-reflection on their observation of classroom teaching and learning interactions, and their students' achievement as measured by formative and summative assessments. Modern views of leadership promote this 'distributed leadership' as an important underpinning of effective collegiality among teachers.

On this basis, Highly Accomplished should be the highest level of recognition of excellent performance within an area of teaching specialisation (subject; level of schooling etc.). The AAMT *Standards* are viewed – and operate – in this way. They capture the highly accomplished teacher of mathematics' interactions with other areas of specialisation; their practices that lead to successful student learning outcomes; their engagement with, and leadership of, a range of communities; their continuing use of ongoing learning, including targeted PD, to further develop their professional skills. Some of what is now included may be suitable to include in the Highly Accomplished level in the proposed changed architecture.

However, the high level of professional status in a specialisation that is characteristic of the Highly Accomplished level is not a necessary precondition for in-school positional leadership in that field (Coordinator, Head of Department etc.). Rather, the AAMT believes that the Lead level in teaching should be more directly linked to these sorts of positions of leadership in schools. Standards can and should be developed for this level. These will include a strong capability within the teaching specialisation (but not Highly Accomplished) as well as capabilities as a leader with authority and responsibilities for the performance of other teachers. The Lead teacher level thus described is then, naturally, the first in the pathway to standards for higher levels of positional leadership in schools (Proficient Principal, Highly Accomplished Principal[5]).

The AAMT rejects the notion that the matter of the distinction – or lack of it – between the Highly Accomplished and Lead levels being tested in the validation stage, with the results being used to inform the further development of the Lead level. That assumes the current architecture. It may be that respondents in the validation see the Descriptors for Lead being 'harder' than Highly Accomplished. The real question to ask is whether this architecture is appropriate.

4. The presentation

The AAMT also suggests that the Descriptor statements be modified to avoid repetition when presented in this 'side-by-side' format. This can be done by making a generic statement to the effect that, at each level above Graduate, the Descriptor statements at successive levels subsume the related statements at all preceding levels. By doing this, and thereby eliminating what seems to be either a direct copy or a simple re-expression of previous descriptors that in the current draft is sometimes inexplicably subtly different, the new components that are characteristic of the higher level are made explicit. Moreover, such new components should be expressed in a way which makes clear how the effective achievement of it might be demonstrated, and appropriately assessed by those charged with doing so, whether within school or by an external body.

Adopting such a convention would enable the writers to be more logical in relation to the 'flow through' of the Descriptors from level to level. In some circumstances (e.g. the expectations in the thread for Standard 2.9 (Knowledge of Australia) should probably not extend beyond those at the Proficient level; the 'side-by-side document could just say "as for Proficient", with the separate statement of the Highly Accomplished level including the actual text).

5. Number of descriptors

There is also a case for trimming the number of threads of Descriptors from the current forty-two. Whilst they are longer and more complex than any of those in the Draft, the AAMT *Standards* has only ten statements – one for each of our standards. Taking this approach in the National Professional Standards would present a more connected, holistic view of the standard – there is a risk of fragmentation with the current splitting and number of descriptors[6]. Reducing the number of threads can be achieved by merging some that cover territory that is linked (e.g.

[5] The names are indicative of establishing a different career pathway (leadership) that can be chosen by *Proficient* teachers.

[6] We have evidence that teachers using the AAMT Standards do try to split the statements into components for practical purposes; however, they appreciate the holistic presentation and do not say it reduces overall usability.

Standards/threads 2.1, 2.2 and 2.3 could be merged to provide a more connected view of 'knowledge of content'). This matter is also discussed below in terms of the impact on assessment.

6. Assessment

As indicated, the Draft National Professional Standards contains more than 40 components of the collective seven Standards. The AAMT is concerned that this could lead to the assessment of the achievement of a level becoming fragmented in its nature rather than holistic. Our experience is that, at the Highly Accomplished level at least, the effective assessment of a teacher's level attainment must, ultimately, be at a more holistic level. Rather than introduce a statement about the need to meet each component (of the more than 40), or a majority of components, the AAMT would wish to see that such assessments are made at the holistic level of the Standards. The Descriptors would then form a framework for ensuring that any assessment process collectively covers these. In particular, at the Highly Accomplished level, the AAMT assesses teachers against its own *Standards* in this holistic manner. This requires an applicant to show how they possess and use a fully integrated set of knowledge and skills not just within each of the three Domains, but as a teacher fully capable of responding effectively to student and/or teacher, or community or professional issues, as they arise.

Other matters

Generic vs Specific standards: the case for standards for a Graduate Teacher of Mathematics[7]

In the specific area of mathematics, AAMT wishes to note the following. It is well-known now that there are teachers teaching mathematics in secondary schools[8] who may be considered as meeting Graduate or Proficient status level in another subject area, but who lack the content and/or content pedagogical knowledge, specific to mathematics, that is expected of a Graduate teacher of mathematics. This so-called 'out-of-field' teaching is of great concern to the AAMT, and with the coming increase in retirement rates of teachers of mathematics currently at Proficient or higher levels, this pressure can only increase. National Professional Standards that define the knowledge and skills necessary to become a Graduate teacher of mathematics will assist these out-of-field teachers – and those who supervise and employ them – to understand what are the bare minimum levels required to be doing the work of teaching mathematics.

The AAMT therefore recommends that the Graduate level standards (at least) be elaborated to provide a clear description of a 'Graduate Teacher of Mathematics'. This would provide much-needed quality assurance for entrants to the profession of mathematics teacher – whether they enter direct from university or as established teachers from another subject area. This is a departure from current practices in which the levels equivalent to Graduate and Proficient in the National Professional Standards are only ever described in generic terms. The AAMT would be keen to work with AITSL[9] to explore this territory as a potential pilot for other subject areas.

The importance of critical self-reflection

The AAMT believes that the present Proficient level descriptors place insufficient emphasis on the use of self-reflection as part of a teacher's critical evaluation of student performance and their own teaching skills. This is fundamental to stimulating and informing continuing interaction with colleagues and involvement with other forms of professional development. There is a need to show that, at the Proficient level, one is conscious of the need to progress towards the Highly Accomplished level through this process of critical self-reflection, just to maintain Proficient status over time.

A sense of 'compliance'

The following refers to the thread of Descriptors about 'policies and regulations'. The regulatory use of the Graduate and Proficient levels probably makes it appropriate to set expectations that teachers at these levels will know and comply with 'regulations and statutes'. Highly Accomplished teachers should certainly abide by these rules. However, their level is also characterised by analysing and critiquing the rules. Highly Accomplished teachers should be taking a critical view of such things as curriculum and policies at the school level and beyond. Leading further development in these sorts of areas is part of their professional role. This orientation should be captured in the Descriptor for 7.2 at the Highly Accomplished level.

Language in the Knowledge Domain

Finding the language to specify the professional knowledge that teachers should have is a consistent problem for writers of documents like this. It is very easy to fall into using action words, and this reflects the reality that knowledge for teaching of and for itself is largely 'hollow' – people want to see that the knowledge is used to effect in teaching. For example, at the current Lead level Descriptor 1.4 uses the term "They initiate action..." – this is an action and not a description of the knowledge that the teacher holds. The Draft National Professional Standards need to be combed to remove instances like this.

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[7] This section arguably strays into the area of 'implementation' rather than the writing of a standards document such. However, the idea it encapsulates would help address a thorny issue in quality assurance of mathematics teachers. It is included as an example of a new way in which standards, when coherently applied, can be powerful agents for improvement.

[8] The context of primary schooling does not generally include specialist teachers of mathematics.

[9] it is understood that AITSL will have the responsibility for the carriage of work with the National Professional Standards once they are finalised.

The Draft also uses the sense of teachers knowing "how to". This is a means for bridging across into actions that should probably only be used when there is no other alternative.

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