



MINISTERIAL COUNCIL ON EDUCATION, EMPLOYMENT,  
TRAINING AND YOUTH AFFAIRS

*Performance Measurement and Reporting Taskforce*

Working for quality education outcomes

# **Measurement Framework for National Key Performance Measures**

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## Introduction

In 1999 Ministers responsible for school education agreed to the new set of *National Goals for Schooling in the Twenty-First Century*, with the aim of providing high quality schooling in Australia which would secure for students the necessary knowledge, understanding, skills and values for a productive and rewarding life. As a consequence, the national council of Ministers (MCEETYA) set in train a process to enable nationally comparable reporting of progress against the *National Goals*.

This *Measurement Framework for National Key Performance Measures* takes account of all MCEETYA decisions related to measuring performance against the *National Goals*.

It sets out a basis for reporting progress towards the achievement of the *National Goals* by Australian school students drawing on the agreed definitions of Key Performance Measures. The core of the *Framework* is a schedule setting out Key Performance Measures and an agreed assessment and reporting cycle for the period 2003–2011.

With the aim of driving school improvement and enhanced outcomes for students, Ministers responsible for school education have agreed to report on progress towards the achievement of the *National Goals for Schooling* in the following priority areas, comparable by State and Territory, and using Key Performance Measures as the basis for reporting:

- literacy
- numeracy
- science
- civics and citizenship education
- information and communication technology
- vocational education and training in schools
- participation and attainment.

Ministers also noted the need to investigate the development of indicators of performance in enterprise education but have since agreed that work in this area should cease for the time being.

Definitions of student characteristics have been agreed by MCEETYA. Student outcomes will be reported for the student cohorts disaggregated by:

- sex
- Indigenous status
- language background
- geographic location
- socio-economic background.

Work is continuing on the development of a common definition of, and approach to, the measurement of outcomes for students with disabilities.

In 2004, MCEETYA endorsed the following enhancements to national reporting and accountability systems:

- introducing benchmarking against international comparisons
- ensuring that reporting is reliable and nationally comparable for Years 3, 5 and 7
- collecting financial data that allows for comparable reporting
- developing plain English reporting
- using data collections to improve Australian education policy.

In December 2004, the Federal Parliament passed the *Schools Assistance (Learning Together—Achievement Through Choice and Opportunity) Act 2004*. The *Act* and the *Regulations* supporting it require PMRT to undertake further work in relation to developing and reporting against common instruments for literacy and numeracy, developing nationally

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<sup>1</sup> Ministers' decision followed extensive investigations by the PMRT which indicated that it is not feasible to develop Key Performance Measures for this domain at this time.

comparable measures for attendance and incorporating the *Trends in International Mathematics and Science Study (TIMSS) within the Measurement Framework*.

The Performance Measurement and Reporting Taskforce (PMRT) is responsible for developing and implementing a management strategy for the work outlined in the Framework. The resources to support PMRT's work are provided by the Australian Government and the States and Territories according to the MCEETYA Project Formula.

## Key Performance Measures

National Key Performance Measures (KPMs) have been developed to ensure that key indicators of the outcomes of schooling in Australia are publicly available. In March 2000, Ministers endorsed the definition of national KPMs as *a set of measures limited in number and strategic in orientation, which provides nationally comparable data on aspects of performance critical to monitoring progress against the National Goals for Schooling in the 21st Century*. KPMs will be developed for each of the priority areas within the *National Goals*.

Within that context, a KPM quantifies a dimension of student participation, attainment or achievement and enables progress to be monitored against the *National Goals*. KPMs are expressed as a percentage or proportion of students achieving a performance standard; or the number or proportion of students participating in or successfully completing programs of a particular duration, and/or standard.

KPMs reflect good assessment practice, support open transparent reporting and are published in a manner that facilitates access by the public. They are policy relevant, cost effective and practical to collect, and of interest to the public. As a set, the national KPMs are limited in number, strategic in orientation, balanced in coverage across the priority areas, and provide nationally comparable data on aspects of performance critical to monitoring progress against the *National Goals for Schooling*.

The following principles underpin the development of KPMs:

- i. Student outcomes information is the focus of the reporting agenda.
- ii. KPMs take account of State and Territory curriculum and assessment frameworks.
- iii. Assessment techniques are innovative and model good assessment practice, and wherever possible, assessment materials developed for national sample assessments are available for use by systems and schools.
- iv. Collection and use of data for national purposes will in all respects conform to the guidelines provided in the paper *Data Collection, Management and Reporting*.
- v. Access to PMRT data collections will be available to interested parties subject to privacy and confidentiality considerations, the provisions of the Census and Statistics Act and agreed MCEETYA and PMRT processes and protocols. PMRT data will only be made available to researchers or other external agencies in a form that does not identify individual students or schools.
- vi. Where performance across different student age cohorts in a particular domain is the focus of measurement, a single scale should underpin the measurement of student achievement.
- vii. The KPMs enable the range of student achievement in each assessed area to be reported.

Existing measures of literacy and numeracy performance based on national benchmarks do not currently meet all of these principles. It is expected that enhancements to the model for assessing and reporting literacy and numeracy currently under development will enable reporting of student performance across a range of achievement levels and also address the issues around developing a single scale in each of the assessed curriculum areas.

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<sup>2</sup> The definition and application of the term 'nationally comparable' and further information about data management is discussed in the PMRT Data Collection, Management and Reporting paper pp 14–15 (3.2: 3.2.1 & 3.2.2) <http://www.mceetya.edu.au/mceetya/>.

<sup>3</sup> PMRT Secretariat will advise jurisdictions through PMRT Taskforce members of requests for data by external researchers.

As policies and priorities change, Ministers expect that new areas will be proposed for measurement at the national level. The process for establishing new measures, including those directly requested by MCEETYA, involves discussion and evaluation by the PMRT, development of possible measures, followed by the provision of written advice to MCEETYA which would include an indication of the likely resource demand of establishing the measure and the timeline for implementation.

## **Benchmarks and Standards**

MCEETYA has advised PMRT that it requires student performance to be reported across the range of achievement levels. The current approach in literacy and numeracy is restricted to reporting performance at or above the minimal standard which is described by the national benchmarks. However, it is anticipated that the implementation of the enhanced literacy and numeracy assessment processes in 2008 will ensure that the range of student performance can be reported.

PMRT has determined that national standards for measures in science, civics and citizenship and ICT, for the measures of the performance of 15 year-old students based upon PISA and for the Year 4 and Year 8 measures based on TIMSS, should be set at a 'proficient' standard, rather than a 'minimum' standard. In addition, data on the performance of students across all achievement bands will also be prepared and made available.

At its March 2003 meeting, the PMRT endorsed processes for setting national standards in areas such as science literacy, ICT literacy, civics and citizenship, and reading, mathematics and scientific literacy for 15 year-old students.

## **Target Setting**

The agreed definition of a national target is *a measurable level of performance expected to be attained within a specified time.*

National targets are developed with two purposes in mind: to drive improvement in school and student outcomes, and to provide an indication of how the states and territories are performing in relation to the relevant *National Goals*.

To date, Ministers have agreed to national targets in the areas of reading, writing, spelling and numeracy for Years 3, 5 and 7. Ministers have also agreed to consider establishing further national targets where KPMs are developed for other national goals. However, each national goal has different characteristics which have implications for developing meaningful KPMs.

MCEETYA has endorsed target setting as a means of expressing aspirations and providing motivation for continuous school and system improvement, and an additional way of guiding, supporting and monitoring school and system improvement.

## **Review of the Key Performance Measures**

The set of KPMs outlined in this *Measurement Framework* will be reviewed from time to time in the context of MCEETYA's expectation that the measures will be few in number and strategic in orientation, the need to ensure appropriate coverage of the priority areas outlined in the *National Goals* and to investigate implementation of additional measures required by MCEETYA. Following such reviews, written advice may be provided to MCEETYA proposing additional measures or reframing or removing existing measures.

## **Changes to the *Measurement Framework***

The *Schools Assistance (Learning Together—Achievement Through Choice and Opportunity) Act 2004* requires PMRT to investigate and provide advice on:

- implementing national tests in literacy and numeracy at Years 3, 5, 7 and 9

- incorporating the *TIMSS* mathematics and science literacy sample assessment at Years 4 and 8 within the *Measurement Framework*, including the development of agreed national standards
- developing nationally comparable measures of student attendance.

These are now referenced within the Agreed Assessment and Data Collection Cycle (pages 7ff).

## Managing the Reporting Demands on Schools

Managing the data collection demands on jurisdictions and schools has been an important consideration in developing the national KPMs. There are currently nine areas covered by national KPMs. Thirteen KPMs, including the well established national literacy and numeracy benchmarks based on existing statewide assessment programs, involve testing students.

PMRT's focus on managing the reporting demands on schools and jurisdictions is evident in the rolling triennial cycle for the assessment of science literacy, civics and citizenship and ICT literacy using a sample of students, and the use of data from the *Trends in International Mathematics and Science Study (TIMSS)* to provide data about the performance of Year 4 and Year 8 students in Mathematics and Science, and the *Programme for International Student Assessment (PISA)* to measure literacy, numeracy and science outcomes for 15 year-old students. In addition the number of KPMs in the Vocational Education and Training (VET) area has been limited to one participation measure and one attainment measure to minimise workload on jurisdictions.

Nevertheless, it is recognised that some schools may perceive national and international assessments to have a lower priority than other programs within the school, and that whatever the benefits of such assessments, there will be disruption and additional workload demands at the school level. This is particularly evident in smaller jurisdictions where schools are approached more frequently to participate in assessment programs.

Whenever the *Measurement Framework* is reviewed, and where new measures are proposed, the impact on schools and smaller jurisdictions will be carefully weighed in reaching decisions about the scope of the proposed measures and the feasibility of introducing them.

## The National Assessment Program

The National Assessment Program (NAP) which has been agreed by MCEETYA, and outlined in the *Measurement Framework for National Key Performance Measures* has both national and international elements. It encompasses all of the MCEETYA endorsed tests which are developed nationally to measure student performance in relation to the National Goals for Schooling, and also Australia's participation in the international tests, the *OECD Programme for International Student Assessment (PISA)* and the *Trends in International Mathematics and Science Study (TIMSS)*. The term NAP is used within the titles of the nationally developed assessment programs to identify them as part of this suite of assessments. To avoid confusion however, while Australia's participation in *PISA* and *TIMSS* are part of the NAP, the titles of these international assessments remains unchanged.

### National Elements

These assessments will assist educators to interpret the performances of their own schools by providing nationally comparable information about the achievements of students in other states and territories.

Each of the sample programs—science literacy, civics and citizenship and ICT literacy—has wherever possible, been designed to provide a set of items that any Australian school can use to measure its students' performance against national standards. In addition, the detailed

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4 See Key Performance Measures 1–5 in the table on pages 7–9

reports, prepared following each assessment cycle, provide useful information to schools and jurisdictions and inform planning for improved student learning in these key curriculum areas.

### **International Elements**

Results from Australia's participation in international assessment programs, specifically the *Programme for International Student Assessment (PISA)* and the *Trends in International Mathematics and Science Study (TIMSS)* are used to provide data on the progress of Australian school students towards achieving the *National Goals*.

It should be noted that data collection for both national and international assessment programs will be expedited through jurisdiction approval processes. Jurisdictions and sectors have agreed that as these assessment programs are endorsed by Ministers and are part of the National Assessment Program, and that since agencies managing such programs are themselves bound by the highest ethical standards, approval processes applied to general research programs and 'one-off' studies do not apply.

PMRT will develop a process for evaluating future invitations to participate in international assessment programs to ensure that an appropriate benefit analysis is undertaken.

### **Assessment Cycle**

A table summarising the agreed national Key Performance Measures and the reporting cycle is included on the following pages.

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<sup>5</sup> See <http://www.mceetya.edu.au/mceetya/> for benefits of participating in national assessments

<sup>6</sup> See <http://www.mceetya.edu.au/mceetya/> for benefits of participating in international assessments.

## The Current Key Performance Measures and Agreed Assessment and Data Collection Cycle

Measure		Year Level	Cycle	Type/Source	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Literacy</b>													
1a	% achieving reading benchmark <sup>1</sup>	Years 3, 5, 7 & 9 <sup>2</sup>	Annual	State & territory full cohort literacy test to 2007; common tests from 2008	✓	✓	✓	✓	✓	✓	✓	✓	✓
1b	% achieving at or above the proficient standard on the OECD <i>PISA</i> combined reading scale <sup>3</sup>	15 year-olds	Triennial	International test—national sample of students	<i>PISA</i>			<i>PISA</i>			<i>PISA</i> <sup>4</sup>		
1c	% achieving writing benchmark <sup>1</sup>	Years 3, 5, 7 & 9 <sup>5</sup>	Annual	State & territory full cohort literacy test to 2007; common tests from 2008	✓	✓	✓	✓	✓	✓	✓	✓	✓
1d	% achieving spelling benchmark <sup>6</sup>	Years 3, 5, 7 & 9	Annual	National test to be developed from 2008					✓	✓	✓	✓	✓

1 For national benchmarks (Year 3, 5 and 7) the agreed standard is 'a minimum standard without which a student would have difficulty progressing at school'.

2 National assessment in reading in Year 9 to start from 2008.

3 For the *PISA* Reading scale, the proficient standard is agreed to be Level 3.

4 Subject to MCEETYA agreement to participate in *PISA* post 2006.

5 National assessment in writing in Year 9 to start from 2008.

6 Under discussion—reporting will be delayed pending introduction of enhanced literacy and numeracy measures.



Measure		Year Level	Cycle	Type/Source	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Numeracy</b>													
2a	% achieving numeracy benchmark <sup>1</sup>	Years 3, 5, 7 & 9 <sup>7</sup>	Annual	State & territory full cohort numeracy test to 2007; common tests from 2008	✓	✓	✓	✓	✓	✓	✓	✓	✓
2b	% achieving at or above proficient standard on the OECD <i>PISA</i> combined mathematics scale	15 year-olds	Triennial	International test—national sample of students	<i>PISA</i>			<i>PISA</i>			<i>PISA</i> <sup>4</sup>		
2c	% achieving at or above the proficient standard on the <i>TIMSS</i> mathematics scale <sup>8</sup>	Year 4 Year 8	Quadrennial	International test—national sample of students				<i>TIMSS</i>				<i>TIMSS</i> <sup>9</sup>	
<b>Science</b>													
3a	% achieving at or above the proficient standard in science literacy <sup>10</sup>	Year 6	Triennial	National Assessment Program (NAP)—national sample of students	✓			✓			✓		
3b	Interim measure—% achieving at or above the OECD mean score <sup>11</sup>	15 year-olds	Triennial	International test—national sample of students	<i>PISA</i>			<i>PISA</i>			<i>PISA</i> <sup>4</sup>		
3c	% achieving at or above the proficient standard on the <i>TIMSS</i> science scale <sup>12</sup>	Year 4 Year 8	Quadrennial	International test—national sample of students				<i>TIMSS</i>				<i>TIMSS</i> <sup>9</sup>	

7 National assessment in numeracy in Year 9 to start from 2008.

8 Under consideration.

9 Subject to MCEETYA agreement to participate in TIMSS post 2006.

10 For Year 6 science literacy, the proficient standard is set at Band 3.2 within the National Assessment Program.

11 Standard to be set following results of PISA 2006.

12 Under consideration.

Measure	Year Level	Cycle	Type/Source	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Civics and Citizenship</b>												
4a	% achieving at or above the proficient standard in civic knowledge and understanding	Years 6 & 10	Triennial	National Assessment Program (NAP)—national sample of students		✓			✓			✓
4b	% achieving at or above the proficient standard in citizenship participation skills and civic values	Years 6 & 10	Triennial	National Assessment Program (NAP)—national sample of students		✓			✓			✓
<b>Information &amp; Communication Technology (ICT)<sup>13</sup></b>												
5	% achieving at or above the proficient standard in ICT	Years 6 & 10	Triennial	National Assessment Program (NAP)—national sample of students			✓			✓		✓
<b>VET in Schools</b>												
6a	<b>Participation</b> —School students undertaking VET (with New Apprenticeships & Traineeships disaggregated) as part of their senior secondary school certificate in a calendar year as a proportion of all school students undertaking a senior secondary school certificate in that year	Senior secondary	Annual	Up to 2004—state and territory certification data From 2005—NCVER	✓	✓	✓	✓	✓	✓	✓	✓
6b	<b>Attainment</b> —School students enrolled in a senior secondary certificate in a calendar year who have completed at least one VET unit of competency/module as a proportion of all school students undertaking the senior secondary certificate in that year	Senior secondary	Annual	Up to 2004—state and territory certification data From 2005—NCVER	✓	✓	✓	✓	✓	✓	✓	✓

13 Standards to be set in 2006 following completion of first cycle of testing.

	Measure	Year Level	Cycle	Type/Source	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Student Participation</b>													
7a	The proportion of 15–19 year olds, by single year of age, in full-time education or training, in full-time work, or both in part-time work and part-time education or training		Annual	<i>ABS Survey of Education &amp; Work</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓
7b	The proportion of 20–24 year olds by single year of age, in full-time education or training, in full-time work, or both in part-time work and part-time education or training		Annual	<i>ABS Survey of Education &amp; Work</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Student Attainment</b>													
8a	The proportion of 20–24 year olds who have completed Year 12 or equivalent or gained a qualification at AQF Level 2 or above <sup>14</sup>		Annual	<i>ABS Survey of Education &amp; Work</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓
8b	The proportion of 25–29 year olds who have gained a post-secondary qualification at AQF Level 3 or above <sup>15</sup>		Annual	<i>ABS Survey of Education &amp; Work</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Student Attendance</b>													
9	Measure under development	Under consideration	Annual	Jurisdiction and sector data					✓	✓	✓	✓	✓

<sup>14</sup> State and territory data against the new measure will be reported from 2004–2006 using an ABSCQ-based series for 5-year movements for states and territories for the 2004, 2005 and 2006 ANRs, and other national reports.

<sup>15</sup> State and territory data against the new measure will be reported from 2004–2006 using an ABSCQ-based series for 5-year movements for states and territories for the 2004, 2005 and 2006 ANRs, and other national reports; data collected for this measure may include some persons who completed an AQF Level 3 or above qualification at secondary school.