Review of Statewide Assessments in the context of National Developments

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2006
FOREWORD

The purpose of all assessment, whether informal classroom-based assessment or formal testing, is to provide information that will support teaching and learning in schools, and hence improve student outcomes. Good assessment is inexorably linked to curriculum and pedagogy and New South Wales can be justly proud of the recent reforms it has made to its curriculum with the introduction of outcomes based syllabuses, its pedagogy, with the implementation of its Quality Teaching Program, and its assessment with establishment of standards-referenced-reporting.

The national initiatives encapsulated in the Schools Assistance Act Regulations 2005, provide both a challenge and an opportunity. The challenge is to ensure that the national common tests yield data of the same quality as that produced by the existing state-wide tests which they will replace; data that schools can use to improve their teaching and learning strategies. The opportunity is to re-think current policies, practices and structures in order to align them with what is best practice in assessment.

This review has identified several shortcomings in the proposed national program and it concludes that the current Key Performance Measures do not provide an adequate basis for the monitoring of progress toward the achievement of the National Goals for Schooling. In particular, there is a lack of coherence between the proposed Statements of Learning, the assessment frameworks for the National Assessment Program tests, and the reporting standards. The recommendations that have been made by this review about the national program are to provide a framework of advice for New South Wales in relation to any national authority that will have responsibility for the national tests.

Evidence from a state-wide survey of government and non-government schools has shown that schools use the data from existing state-wide tests to improve teaching and learning strategies. The key to the acceptance of these tests is the quality of the feedback they offer to parents and teachers through the student and school reports, and the analysis packages and the support materials they provide which allow schools to link test results to curriculum and teaching strategies.

Data from state and international tests do not support the view that there is a decrease in the numeracy performance of New South Wales students in Year 7. There is more support for the view that the Year 7 national benchmarks represent desirable minimum standards rather than the existing minimum standards that are the basis for the Year 3 and Year 5 benchmarks.
The NSW testing program has been reviewed in light of current national initiatives, and along with developments in the school leaving age and vocational pathways, recommendations have been made to respond to this changing environment by a future review of the School Certificate as an exit credential and the role of the current Year 10 examinations. The School Certificate was outside the scope of this review but submissions were received that showed no support for retaining the Year 10 examinations once the Year 9 national assessments have been introduced. Several options in relation to separating the School Certificate credential itself from the Year 10 examination have been presented for consideration in the future.

Drawing on evidence collected during the review an assessment framework has been proposed for New South Wales schools which encompasses formal tests and school-based assessment, and the development of support material for schools. The purpose of this framework is to ensure that the quality of assessment in New South Wales schools is strengthened following the introduction of the national common tests. The recommendations and proposals have been made with this outcome in mind.

George Cooney
November 2006
EXECUTIVE SUMMARY

1. Background

In March 1997 all State, Territory and Commonwealth Education Ministers agreed on a national goal which stated that every child leaving primary school should be numerate and able to read, write and spell at an appropriate level. A National Literacy and Numeracy Plan was then implemented which included the development of national benchmarks for each of years 3, 5 and 7, the assessment of students against these benchmarks and the national reporting of benchmark data. A nationally agreed procedure was developed to equate state and territory tests to ensure that the reporting of student achievement data was comparable. The Australian Government’s regulations to the Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004, however, required that school authorities will implement common national tests in numeracy and literacy.

These regulations, which overturned the previous decisions of the Ministerial Council on Education, Employment and Youth Affairs (MCEETYA), have implications for state and territory testing programs. Consequently, in 2005 the NSW Education Minister, Ms Carmel Tebbutt, initiated a review of the NSW assessment program, to determine which components operate most effectively, whether reforms are necessary and how to maintain the integrity of local assessment and testing programs while accommodating the provisions of the 2004 Act.

This report commences with an overview of the national scene and the current NSW testing program, followed by the results of a survey of NSW schools designed to determine how data from state-wide tests are being used by parents and schools and whether data from these tests can lead to improved teaching and learning. The national assessment program is then evaluated to determine the extent to which the proposed national tests can achieve the twin goals of accountability and school improvement. This report concludes with an analysis of the implications of the national tests on the existing NSW assessment program, and presents an assessment framework for New South Wales schools.

2. Existing NSW tests of numeracy and literacy

Recent research indicates that the quality of state-wide assessment programs can be judged under three headings related to the assessment process and the data it yields, namely: planning, collecting data and using data. Assessment planning involves clarity of purpose, resourcing and sustainability; collecting the data involves test development, administration and marking; and
using the data involves the communication of information to parents and schools and the evaluation of the effectiveness of school and system-wide strategies.

The conclusion drawn from a review of recent research is that large-scale assessment programs can be used to inform teaching and learning strategies in schools and can lead to improved student outcomes provided certain conditions are met. These conditions, in brief, are that:

- the assessment domains are based on a well-defined learning and achievement continuum so that the tests are related to what is taught in schools, what students learn, how they learn and the standards that they are expected to demonstrate
- the test items allow the achievement levels of all students to be accurately determined on a common scale against standards
- parents and schools receive timely and appropriate feedback that identifies strengths and weaknesses in individual students and in school cohorts, and provides links to curriculum support material and teaching strategies that aid student learning

Responses from principals, teachers and parents obtained through a survey of NSW government and non-government schools in 2005, together with subsequent interviews and submissions, supported the claim that the existing New South Wales numeracy and literacy tests satisfy these three criteria. Parents, schools and school systems were in broad agreement that the tests provided them with valuable information about student and school performance in the areas of numeracy and literacy. Test results allowed them to identify individual students and groups of students who were at risk, and areas of the curriculum where there were weaknesses. Data from the tests are being used in whole of school planning and provide specific information to enhance the teaching and learning of literacy and numeracy in order to improve learning outcomes for students.

Feedback and other support material provided for schools and parents were of prime importance to survey respondents. Much was said about the quality of the written reports and the power given to schools to analyse their own data using the SMART software to address local needs. No less important were the printed resources that provided links to curriculum support material and a range of teaching strategies. Responses showed that they are being under utilised because of the limited number available to schools and it is recommended that they be made available online. Responses from schools also showed the obvious need for the professional development of staff to raise their awareness of the support material that is available and how to use it.

Despite the strong support for the NSW state-wide numeracy and literacy tests, submissions indicated clearly that these tests were perceived as only part of a school’s assessment program
and should not have primacy over student performance data collected within schools using alternative methods of assessment.

The survey data supports the view expressed in one of the written submissions that primary schools take more account of the numeracy and literacy results for whole of school planning than secondary schools. This may be the result of the timing of the tests or the greater perceived importance of the School Certificate and Higher School Certificate. Evidence did emerge of an imbalance between literacy and numeracy, especially in secondary schools, with literacy receiving more attention than numeracy.

Timing was obviously an issue with schools expressing a strong view that it was important to have the test results in Term 3 to allow intervention programs for students at risk to be implemented before the end of the year, and to inform school planning for the following year.

3. Year 7 numeracy results

The findings of this review did not support the proposition that the numeracy performance of NSW Year 7 students is worse than their literacy performance, nor that their numeracy performance was substantially below that of other states and territories. The evidence collected during the review indicated that the Year 7 benchmarks represented a desired minimum standard rather than an existing minimum standard which was used for years 3 and 5. There is an obvious need for consistency in the way benchmarks standards are defined across the years from 3 to 9, whether desirable minimum standards or existing minimum standards.

When the Year 7 numeracy benchmark cut-score was shifted to a level consistent with the Year 3 and Year 5 benchmarks, the percentages of NSW Year 7 students achieving the national numeracy and literacy benchmarks were found to be similar. While the ranking of New South Wales against the other states would not change with a shift in the numeracy benchmark cut-score, the differences between states would be reduced and there would be more overlap when the standard errors are taken into account.

**Recommendation 1:**

*That the national body responsible for the common tests of numeracy and literacy use a consistent conceptual definition for determining the benchmark standards for years 3, 5, 7 and 9, whether a desirable or a minimum standard.*
Two findings emerged from interviews with school principals and teachers in relation to the teaching of Mathematics across the primary/secondary boundary, findings that were not unexpected or new. The first is that Mathematics is taught differently in primary and secondary schools, which may be a consequence of differences between the Stage 3 and Stage 4 syllabuses. The second is that there is little contact between primary and secondary Mathematics teachers, and hence little transfer of knowledge across the primary/secondary boundary. Differences in pedagogy and lack of contact, however, are not confined to Mathematics.

What appears, however, to be a common attitude among Mathematics teachers, but not among teachers in other subject areas, is that it is better for all Year 7 students to start at the beginning in order to ensure that they all know the necessary content. This attitude may be a reaction to what they perceive as very large differences in the mathematical skills of their Year 7 students and their view that it is preferable to re-teach the associated content to all students rather than to employ other strategies. This strategy may, in fact, be counter-productive for students who have already demonstrated mastery of the requisite mathematical content and skills, leading to underachievement because of boredom.

A middle school approach of itself might not be sufficient to address these issues. The middle school literature and information gained about the practice in several schools suggested that more is needed. There is a clear need for additional research in ways of meeting the needs of students entering high school who have not demonstrated the Stage 3 syllabus outcomes, apart from re-teaching the material. Given the current interest in middle schooling there is the opportunity to evaluate the transition arrangements from primary to secondary school, including the transfer of student data.

**Recommendation 2:**
*That research be encouraged to determine appropriate teaching strategies for students entering secondary school with weaknesses in Mathematics.*

**Recommendation 3:**
*That an evaluation of the transition arrangements from primary to secondary school be conducted.*

While the data show that students do improve their numeracy skills from Year 5 to Year 7, there is no clear answer about whether the development is uniform or whether there is a discontinuity
in Year 7 as a result of the transition from primary to secondary school. An argument was made by several respondents that some of the skills which were demonstrated in Year 6 may have been forgotten in Year 7 because of the way Mathematics is programmed in Year 7. This hypothesis can be tested by having a sample of Year 6 students complete the SNAP test in Term 4. Some teachers also criticised the SNAP tests because they perceived them as disadvantaging students with poor literacy skills. While published data show that students from a non-English background do well on the SNAP test, there are no data relating numeracy test results to literacy levels. Two recommendations emerge from these observations.

**Recommendation 4:**

*That the SNAP test be administered to a sample of NSW Year 6 students in Term 4 to determine the rate of development of mathematical skills across the primary/secondary transition.*

**Recommendation 5:**

*That research be conducted on the way that literacy levels affect student performance on the SNAP test.*

### 4. A national assessment framework

Several conclusions emerged from the analysis of the national assessment program.

Firstly, while each Key Performance Measure (KPM) provides some information about the extent to which a particular national goal is being achieved the KPMs, as a group, do not provide a coherent overall statement of the health of Australian schools as envisaged by the Australian Government in its published documents. To achieve the Government’s original goal, the national program must be re-visited to achieve coherence between curriculum, assessment and reporting standards.

Statements of Learning, which define the range of content and skills that students should be given the opportunity to learn and the performance standard that students will be expected to demonstrate, should be formulated first. Light sample National Assessment Program (NAP) tests, for each Key Learning Area, with reporting standards that reflect the “expected” standards specified in the corresponding Statements of Learning, would then be developed. Full cohort common national tests of literacy and numeracy would also be developed taking into account the Statements of Learning, but these would be reported against benchmark standards.
It is important that states and territories continue to receive data in such a form that lends itself to the construction of student and school reports, which will support teaching and learning in their schools. To have improved educational outcomes the quality of the feedback schools receive must be at least as high as that currently received from the NSW Department of Education and Training.

Envisaging a specific structure at the national level to guarantee the required coherence between curriculum, assessment and reporting is difficult because of the absence of a decision about the roles of a national authority in relation to the common national tests. Given the political realities, it is possible that different national agencies will have oversight for the Statements of Learning and the national tests, with the agency responsible for these tests being merely a coordinator and contractor for the tests.

This scenario may have two unintended consequences unless appropriate steps are taken. The first is that there can be no guarantee of the quality of the tests and their associated analyses unless the national agency has the requisite technical and administrative expertise. The second is that the lack of coherence between the Statements of Learning and national tests will continue unless an agency such as the Performance Measurement and Reporting Taskforce (PMRT) is charged with the responsibility of achieving synergy between curriculum, assessment and reporting. The importance of this monitoring role cannot be overemphasised: without it there can be no guarantee that the KPMs will adequately measure the health of Australian schools as required or that the results from national tests could be used for school improvement.

Three recommendations, which are related to function rather than structure, emerge from the discussion of the national initiatives. Any recommendations about the actual structure are beyond the terms of reference of this review and would be premature given the lack of any decision about national/state responsibilities in relation to the common tests. The recommendations that follow about function are those which derive from best practice in assessment.

**Recommendation 6:**
*That the national agency which has responsibility for the national common tests has sufficient technical and administrative expertise to ensure quality assurance in all its roles.*

**Recommendation 7:**
*That implementation of the national curriculum, assessment and reporting agenda be monitored closely to ensure coherence of curriculum, assessment and reporting.*
Recommendation 8:

That, in allocating responsibilities between any national agency and the states, there needs to be a coherent responsibility for these elements of the national testing program:

- the development of testing programs for each of the eight Key Learning Areas identified in the Adelaide Declaration, and the national common tests of numeracy and literacy
- development of a common assessment instrument in each domain to be assessed
- management of marking processes to ensure consistency and comparability across the nation in the application of marking guides
- liaison with states and territories in all aspects of tests development, administration and marking
- scaling, equating and analysis of test results
- national reporting that arises from the assessment program and required for the Australian National Report on Schooling
- provision of information and data to state and territory jurisdictions to allow them to prepare diagnostic and support material and distribute it to systems and schools before the commencement of Term 4
- procurement arrangements for the delivery of services agreed to be undertaken nationally but outsourced, including management and expenditure of financial and other resources
- risk management of all elements of the national program

These recommendations are ambitious, requiring financial and human resources over and above what is required for the current national agenda. They do, however, provide a coherent framework for monitoring national goals and supporting schools in teaching and learning, and without a coherent framework we are unlikely to see quality outcomes in terms of school improvement. The additional finance and time required can be seen as an investment for the future.

The proposed Australian Certificate of Education (ACE) has not been included in these recommendations because no firm decisions have been announced about whether the recommendations of the Masters Report will be implemented. If the ACE becomes a reality, it is desirable that oversight of the ACE be included in the role of the national agency that has responsibility for the other national tests in order to build on the commonality of purpose between the two testing programs. There is no need for two separate national agencies.
5. **An assessment framework for New South Wales schools**

Students in NSW schools are assessed in different ways, by public examinations conducted by the NSW Board of Studies, state-wide tests administered by the Department of Education and Training and by a wide range of classroom and school-based assessment tasks. Introduction of the national tests has implications for the current testing program and for educational authorities, and provides an opportunity to formulate an assessment framework with specified goals for NSW schools.

The first and perhaps most the important responsibility of the NSW educational authorities is that they ensure, through PMRT, that the national common tests are high quality instruments based on curriculum which will provide data in a form to support teaching and learning in NSW schools. The recommendations and proposals that are discussed below are predicated on the assumption that the national common tests will be suitable replacements for the current NSW tests in terms of their quality and the information they provide to parents and schools.

The formulation of an assessment framework for New South Wales then started from the question *what do we want from a state assessment program in New South Wales?* from which the following proposition was derived. *An assessment program for New South Wales schools will include both formal tests and school-based assessment in order to provide high quality data to support teaching and learning in schools, permit the monitoring of schools at state and system levels, be the basis of exit credentials at various stages of schooling and assist selection for various post-school destinations.* The conditions necessary for these outcomes to be achieved were determined by analysing the current testing program in New South Wales and other data gained during this review.

**5.1 Current tests administered by the NSW Department of Education and Training: BST, ELLA, SNAP, CSA6 and ESSA**

Although the current state tests of numeracy and literacy were valued by teachers and parents, all respondents saw them as redundant following implementation of the national common tests, assuming that these national common tests would serve the same roles as the current NSW tests. Some concern has been expressed about the absence of a separate language test and, at the time of writing this report, PMRT has yet to decide on this matter. The current timetable has the national common tests being introduced in 2008, which would mean that the BST, ELLA and SNAP would be offered for the last time in 2007.
For New South Wales, with the BST, ELLA and SNAP tests replaced by the national common tests, the issue is whether the Year 8 Science test and the Year 6 Computer Skills test should be continued.

In light of the increased testing load because of the literacy and numeracy tests in both years 7 and 9, it is hard to justify the continuance of the assessment of Science through the Year 8 Essential Secondary Science Assessment (ESSA) test in its current form. There was little support for ESSA from the secondary teachers who were interviewed; they stated that student and school performance were not monitored in Year 8 for any other KLA, and the Science test gives this subject a status that is not afforded to other areas of the curriculum. The argument that this test would help improve student performance in subsequent light sample international tests is not sufficient reason for retaining the test. Items developed for the ESSA test could, however, be made available to schools through the proposed assessment warehouse as exemplars for assessing Science in Year 8.

Recommendation 9:

*That the ESSA test be discontinued from the end of 2007.*

Given the role of Information and Communication Technology (ICT) in schools it is important to know if students can demonstrate the requisite skills but the current situation, where the Department of Education and Training has developed a test of Computer Skills for Year 6 and the Board of Studies has developed a similar test for the end of Year 10, cannot be sustained. These tests are essentially competency-based tests and are similar in terms of content and skills, so there is the opportunity to have one test. To overcome the logistical problems of having a single test taken by all students at the same time, a model is proposed where individual students can access a series of parallel on-line tests at a time of their choosing. With several parallel forms of the test, students could repeatedly access it until they demonstrated the required competencies.

Allowing students to satisfy the Year 10 Computer Skills requirement at any time during Stages 4 and 5 is offering them the same provision for the School Certificate that is offered to them in relation to the Higher School Certificate, that they can complete courses ahead of their cohort.
5.2 The School Certificate

The context of the School Certificate will change over the next few years. Apart from the introduction of national testing of Year 9 in 2008 there may be developments related to raising the school leaving age and opening up vocational experiences to younger students.

While the School Certificate was not formally part of this review, groups and individuals took the opportunity to make representations about the Year 10 examinations. Almost all respondents argued that these examinations were irrelevant for most students, that they were not consistent with the assessment principles enunciated in the NSW Quality Teaching Framework, and did not cover all Stage 4 outcomes in their subjects. Most submissions also argued that these tests would be of less value after the implementation of the Year 9 national tests.

Individuals and groups who made representations about the Year 10 examinations took the opportunity to also comment on the School Certificate credential itself, separate from the associated examinations. Most respondents stated that the credential was of little value for those students who completed Year 10, arguing that it signalled a transition at the end of Year 10 which for the majority of students did not exist. Some respondents argued that the abolition of the credential would allow students to see Stages 4 to 6 as a continuum and would remove the “black spot” associated with Term 4 in Year 10. Nevertheless, there was a very strong view that the School Certificate credential was valuable for students who did leave school before completing Year 12 and therefore should be retained in some form. Several respondents argued that some form of certificate or record of achievement was also needed for students who completed Year 11 but not Year 12. There is merit in both sets of arguments.

It is not possible to propose options for the School Certificate unless the credential’s purpose is first clarified. When introduced in 1965, the School Certificate marked the end of the first 11 years of school and served as an exit credential for the majority of students who did not complete the final two years of school. These last two years of schooling were, at that time, seen as preparation for university. Since that time this exit certificate role has diminished as the Year 12 participation rate has increased, and the question now to be addressed is whether a certificate marking the completion of the first 11 years of school is still required. Several options have been considered in this review, from retaining the School Certificate credential in its present form to having an exit credential which is awarded to students at the point at which they leave school. This exit credential would display a student’s achievement on both formal and school-based assessment from Year 9 to the year they exited school. With an increasing emphasis on
alternative pathways to different post-school destinations this option of a flexible exit credential has obvious merit.

Given the lack of support for the Year 10 examinations and the strength of the arguments presented, it is difficult to recommend that the examinations themselves be continued beyond the introduction of the Year 9 national common tests in 2008. This proposal should not be seen as an argument for the abolition of formal examinations *per se* and the falseness of such a conclusion is evident in other parts of this report. The current Year 10 examinations did have a valuable role when first introduced in 1998, increasing the rigour of aspects of the Year 10 assessment and providing schools and the Board of Studies with experience of standards-based assessment. The proposal is a response to the valid arguments that with national numeracy and literacy tests in Year 9 the English literacy and Mathematics Year 10 examinations are redundant, and that quality school-based tasks can be constructed to assess students in Science, Australian History and Geography and Civics as in all other areas of the curriculum.

Abolishing the Year 10 examinations would lead to the School Certificate being awarded on the basis of school-based assessments reported against standards. Despite the perception of some respondents that examinations are required to guarantee high standards, published data from the NSW Board of Studies indicates that teachers can report consistently against standards at this level.

Several submissions also argued for re-consideration of the Board of Studies’ requirements for the School Certificate, and that greater flexibility in how schools satisfied these requirements was desirable.

Given the changing context caused by the introduction of the national tests and other developments, there is an opportunity to evaluate the School Certificate. Because the Year 10 examinations and the School Certificate credential are intertwined this review proposes that the role of the School Certificate as an exit credential be reviewed in the first half of 2007 and that this review would also include consideration of the curriculum requirements for Stages 4 and 5, and the role of the current Year 10 examinations.
Recommendation 10:

- that the role of the School Certificate as an exit credential be reviewed in the first half of 2007, with consideration given to a credential being presented at the time at which a student leaves school and that contains a cumulative record of achievement
- that the review include consideration of the role of the current Year 10 examinations.

5.3 The Higher School Certificate

While the national common tests will not have a direct impact on the NSW Higher School Certificate, the implementation of an Australian Certificate of Education would affect what is taught and how student achievement is reported in several subjects at the end of Stage 6 through the incorporation of specified curriculum essentials into the NSW syllabus documents and the imposition of common reporting standards on those subjects. The major effect would, however, be through the introduction of the Key Capabilities Assessment (KCA). If Masters’ suggestion that the KCA be used by universities as an additional measure for selection purposes is accepted, the Year 12 curriculum as it is taught will change. At the very least, the assessment load, which school principals already perceive as too heavy, will increase. Whether the resultant increase in the predictive validity of the UAI would be sufficient to warrant this additional Year 12 testing is problematic.

The NSW HSC reforms have, however, been in place for five years so it is timely to consider what has been accomplished and what modifications, if any, are necessary. As with the other state-wide tests, the acceptance of the “new” HSC has been a result of the amount of pre-2001 consultation and the high quality support material that has been provided to schools. Reporting against standards required a major shift in practice in schools and acceptance of the change has, in part, been due to the provision of standards packages for the 2001 and 2002 examinations which contained samples of student work. These student samples have helped teachers understand the written standards.

Given the time that has elapsed since the introduction of the standards framework, there is a strong argument for the current standards to be evaluated against current syllabus documents and examinations, and to initiate some research to determine whether there has been any drift in standards. Schools also perceived a need for new standards packages to be developed and for them to be regularly updated. These proposals have obvious implications for funding.
Recommendation 11:

That the HSC Performance Band Descriptors used to report student achievement be evaluated against current syllabus outcomes and the range of student achievement in HSC examinations since 2001.

Concurrent with the introduction of standards reporting in the NSW HSC in 2001 was the re-introduction of the concept of “pass” at the boundary of Performance Bands 1 and 2, which was given an HSC mark of 50. There was considerable debate at the time about what would constitute a “pass”, whether it was what you might expect a well-prepared student to achieve or the minimum performance considered consistent with having completed the formal requirements of the course. Adoption of the second option meant that a pass standard reflects, in essence, a benchmark standard rather than a proficient standard and has resulted in more than 90% of the candidature achieving this standard in most courses.

In a standards framework, marks are of secondary importance and indicate only the relative positions of students in the six Performance Bands. Nevertheless, the patterns of marks awarded in HSC courses have resulted in some concern in schools, with teachers regarding the lower HSC marks as inflated in comparison with marks awarded by teachers on school-based assessment tasks and tests. Their argument is that some students gain an inflated view of their academic achievement because they focus on the marks rather than the standards. This debate may dissipate with time as the wider community becomes more familiar with standards, but given the move towards a common reporting framework for K-10 it is opportune to look again at the reporting of HSC achievement. This is not to suggest a move away from standards but rather an examination of the range of marks allocated to these standards taking into account the national reporting requirements regarding standards.

Recommendation 12:

That the range of marks awarded to the HSC Performance Bands be reviewed in light of the national reporting requirements regarding standards across K – 10.

This review has also identified some concern about the conditions for the award of the credential itself, which are separate from the reporting issues identified above. The specific concern is that students can be awarded an HSC without achieving the minimum standard in any course. The current requirements for the award of the HSC credential are that students must have satisfactorily completed a defined pattern of courses in the Preliminary and HSC years, but satisfactorily completed means only that students must complete over 50% of their school
assessments, not be absent from the examination and satisfy certain attendance requirements. There is no requirement that they demonstrate Performance Band 2 or a higher standard in any course. While this has been the case for many years, there is now the opportunity and the need to re-assess this policy.

**Recommendation 13:**

*That the conditions for the award of the HSC credential be reviewed, taking into consideration whether a minimum level of performance is required for award of the credential.*

The above recommendations should be seen as part of the Board of Studies’ quality assurance procedures.

The above recommendations are based on the premise that the quality of the national common tests and the information provided to schools will not be less than the current state-wide tests they are replacing. A reduction in the amount of formal testing will have an impact on the operations of both the Board of Studies and the DET. It also has implications for schools and increases the importance of school-based assessment both for student and school and student improvement.

### 5.4 School-based assessment

School-based assessment is central to NSW’s assessment program and is emphasised in the Quality Teaching Framework. The attributes of good school-based assessment are the same as those for good tests: a close relationship to what is taught, consistency with pedagogy and appropriate feedback. Teachers valued the Quality Teaching Framework’s assessment module, the resources available from the Board of Studies’ Assessment Resource Centre, and some had seen the Curriculum Corporation’s Assessment for Learning examples. Many teachers expressed a desire for examples of good assessment tasks across all areas the curriculum.

New South Wales has the opportunity to meet this request by building on the existing resources held by the DET Educational Measurement and School Accountability Directorate (EMSAD) and the NSW Board of Studies. These two data sources, which currently cover literacy and numeracy from stages 3 to 5 and all the KLAs in Stage 6, provide a good foundation on which to build an assessment warehouse, which would provide examples of how best practice in assessment can be integrated into the teaching and learning cycle. The warehouse could also include resources and assessment tasks for outcomes that are not readily assessed by formal tests.
There are different models for an assessment warehouse: using existing test material only, as at present, or having assessment staff from DET and the Board of Studies develop further assessment tasks and/or inviting classroom teachers to contribute examples of good resources. Provided that appropriate quality checks are implemented, the incorporation of teacher material has merit as it recognizes the expertise of teachers and gives them some degree of ownership. Ownership was seen, by staff in most jurisdictions, to be an important element in the acceptance of state-wide tests.

The provision of professional learning in assessment was also seen by teachers as an important issue. Three elements were identified: how to develop assessment tasks that can be integrated in the teaching and learning cycle, knowing how to provide appropriate feedback to students and how to use data from formal tests and their own assessment tasks for student and school improvement.

**Recommendation 14:**
*That an assessment warehouse be established to provide resources and examples of best practice in assessment for all Key Learning Areas and all stages.*

**Recommendation 15:**
*That appropriate professional learning programs be developed to increase teachers’ use of school-based and external test-based assessment to improve their teaching and learning strategies.*

### 5.5 Reporting student achievement on the national tests

Currently, common scales are used for the NSW state-wide tests of numeracy and literacy and for the corresponding national tests it is proposed that linking items will be used to enable the results from these tests to be placed on common scales covering years 3, 5, 7 and 9. While schools found that common scale reporting was useful for value-added purposes, there was evidence that parents did not necessarily understand the actual scale. What parents found most useful was information about how their child had performed on each test against established standards.

The difficulty with reporting on a common scale across a wide range of grades is attaching meaning to the differences in test scores. While, for example, it is useful know that growth has occurred between years 3 and 5, unless points on the common scale can be described in terms of what the students can or cannot do, it is not possible to describe what has occurred. Given the
complexities surrounding vertical equating, it is proposed that implementation of common scale reporting be delayed for three years until further research has been conducted.

Given that student achievement across all Key Learning Areas in New South Wales will be reported on an A to E scale or equivalent word descriptors based on the broad definitions developed by a NSW cross-sectoral committee, it is proposed that this scale be used for reporting NSW students’ achievement in the national common tests. For consistency the D/E or Basic/Limited boundary could correspond to the national benchmark standard and the C/D or Sound/Basic boundary could correspond to a standard equivalent to that expected from the appropriate NSW Foundations of Learning Statements. Consistency of reporting across different types of tests and other assessment tasks would assist parents’ understanding of their child’s achievement.

An implication of this proposition is that there will be a discontinuity in the NSW trend data but this was always inevitable with the introduction of the national tests, given that the assessment domains of the national tests will be different from those of the existing local tests.

**Recommendation 16:**

That the results of NSW students on each national common test be reported using an A to E scale or equivalent word descriptors, which represents the range of achievement of students on that test, and that reporting on a common scale be delayed for three years until further research has been conducted.

5.6 **An assessment framework for New South Wales schools**

The primary goal of the proposed assessment framework for NSW schools, which derives from the recommendations presented above and the analyses presented in the report, is student and school improvement through the integration of assessment and the teaching and learning cycle. Secondary goals include school accountability, credentialing and selecting for different post-school destinations. The components of the framework are:
1. A formal testing program comprising national full cohort tests of numeracy and literacy at years 3, 5, 7 and 9, light sample NAP tests in specified key Learning Areas, and public examinations conducted by the NSW Board of Studies.

2. High-quality feedback from all formal tests which will support teaching provided to all schools.

3. High-quality school-based assessment that reflects current pedagogy and curriculum, and that emphasises assessment for learning.

4. Appropriate and timely reporting to parents and to jurisdictions.

5. An assessment warehouse containing examples of best practice in assessment base, in the first instance, be based on existing caches of items and other resources held by EMSAD and the Board of Studies and subsequently expanded by assessment tasks contributed by teachers.

6. Appropriate professional learning programs on all aspects of assessment, including assessing for learning and providing appropriate feedback, integrating assessment and pedagogy, and using information from both school-based assessment and formal tests for student and school improvement.

7. A unique student identifier to allow the tracking of student achievement and the transfer of individual test data from primary to secondary sectors.

8. Quality assurance procedures to ensure that all aspects of the framework be reviewed on a regular basis.

9. An ongoing program of research and development in innovative assessment methods and the integration of new technologies, and the provision of support material for schools.

The accountability roles will be served largely by the national tests and public examinations, but the diagnosing, credentialing and selection roles will be served by both formal examinations and school-based assessment. The quality of school-based assessment and the use of assessment information in schools will be enhanced by professional learning programs and by the use of exemplars from the data warehouse. A unique student identifier will allow the easy transfer of relevant student information between schools and may improve transition arrangements from primary to secondary schools. An ongoing program of research and development, coupled with appropriate quality assurance measures will ensure the continuing quality of assessment programs in NSW schools.
6. Structural and financial issues

New South Wales has a different structure to several other states, with the NSW Board of Studies and the Department of Education and Training having distinct but related roles in relation to curriculum and assessment. Both agencies report to the NSW Minister of Education and Training who, under the 1990 Education Reform Act, has the statutory responsibility for the quality of education in all schools, government and non-government, in the state. The emergence of national testing focuses attention on the need for greater quality assurance and public accountability roles with respect to both government and non-government school sectors.

There are structural and financial issues surrounding the introduction of national common tests, the reporting of the results from these tests to parents and schools, the provision of diagnostic and associated support material to schools, the provision of computer software that will enable schools to analyse their data and the costs associated with the proposed national agency that will administer the tests. Decisions have to be made about which state agency is responsibility for these functions, taking into account the roles and responsibilities of the New South Wales and Commonwealth governments, the NSW Department of Education and Training, the NSW Board of Studies, the Catholic Education Commission and other independent school systems, and the relationships between these authorities.

It is premature to speculate on options at this stage, given that no firm decisions have been made in relation to national and state roles and responsibilities about the administration of the national common tests. The important responsibility for NSW educational authorities is to ensure that the quality of the information received by all schools, whether state or government, in relation to these national tests, is of similar quality to that currently enjoyed by the government schools in New South Wales. There will be both an imperative and an opportunity for the various educational agencies to collaborate closely to achieve this goal.

If the proposals and recommendations made in this review are accepted, there will also be structural and financial implications for both the NSW Board of Studies and the DET associated with the reduction in the number of formal examinations developed by NSW authorities, implementation of the proposed assessment warehouse and an increase in professional development activities. The proposals, considered as a package, may be budget neutral but this cannot be ascertained until the costs associated with the national agency and the national tests are fully known.
There will be opportunities for close collaboration between the NSW Board of Studies and EMSAD in particular, building on the synergies that already exist between the two agencies. Despite some strongly held views about the respective roles of the Board of Studies and the DET, there are obvious merits in some form of collaboration and/or consolidation in the areas of curriculum, assessment and testing, and quality assurance. Consolidation is consistent with the NSW Government’s fiscal strategy to reduce budget outlays and the need to achieve greater economies of scale in resource allocation if services are to be maintained and enhanced, and there is a pressing need to retain a critical mass of test development expertise in New South Wales. Some form of collaboration or consolidation of activities would also reduce overlap between the DET and the Board of Studies in the provision of advice through curriculum and assessment support material to schools.

There are several options that could be canvassed, taking into account the defined roles and responsibilities of the Board of Studies and the Department of Education and Training, but until decisions are made at the national level about the roles and responsibilities of the agency that will have oversight for the national common tests, any discussion would be speculative.

7. Conclusion

This report has investigated assessment practice in New South Wales and has proposed an assessment framework which encompasses formal tests and school-based assessment, and the development of support material for schools that, if adequately resourced, would deliver quality outcomes for schools. The proposals build on the obvious strengths in curriculum and assessment in New South Wales and the synergies that already exist between various state agencies. The proposal regarding collaboration between different educational authorities in New South Wales and consolidation of some activities may be contentious. This proposal is, however, based on a strong belief in the integration of curriculum and assessment, the need to provide all schools with diagnostic feedback from the national tests and to support school-based assessment in a way that results in improved teaching and learning strategies, and the need to preserve and develop the existing test development expertise in the state.

The purpose of this proposed assessment framework, which should be seen as a unity, is not to increase the amount of assessment in NSW schools, but to ensure that the quality of the assessment program in NSW is strengthened rather than weakened by the introduction of the national assessment initiatives. The recommendations and proposals have been made with this outcome in mind.
ACKNOWLEDGEMENTS

I acknowledge the great assistance given by senior staff in the NSW Department of Education and Training in the supply of relevant documents and other material.

I acknowledge also the willingness of members of the Reference Group who provided submissions from their organisations, arranged meetings with members from their associations and supported the survey of schools.

I acknowledge the way that staff from the state and territory assessment agencies were willing to be interviewed about the impact of national tests on their own state-wide assessment programs.

I acknowledge the school principals who generously participated in the school survey at such a busy time of the year, to the teachers and parents who completed the questionnaires, and the principals and teachers who agreed to be interviewed.

I acknowledge the contribution made by Lynn McCabe who coded the data.

Finally I acknowledge the great contribution to all aspects of the research by Associate Professor Pamela Coutts from Macquarie University’s School of Education.
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AESOC</td>
<td>Australian Educational Senior Officials Committee</td>
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<tr>
<td>ACER</td>
<td>Australian Council for Educational Research</td>
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<td>AEC</td>
<td>Australian Education Council</td>
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<td>ARG</td>
<td>Assessment Reform Group</td>
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<td>BEMU</td>
<td>Benchmarking and Educational Measurement Unit</td>
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<td>BST</td>
<td>Basic Skills Test</td>
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<tr>
<td>CSA6</td>
<td>Computer Skills Assessment Year 6</td>
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<tr>
<td>ELLA</td>
<td>English Language Literacy Assessment</td>
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<td>EMSAD</td>
<td>Educational Measurement and Schools Accountability Directorate</td>
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<tr>
<td>ERDC</td>
<td>Education Research Development Committee</td>
</tr>
<tr>
<td>ESSA</td>
<td>Essential Secondary Science Assessment</td>
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<td>DET</td>
<td>Department of Education and Training</td>
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<td>DEST</td>
<td>Department of Education, Science and Training</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<tr>
<td>IEA</td>
<td>International Association for Evaluation of Educational Achievement</td>
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<td>KCA</td>
<td>Key Capabilities Assessment</td>
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<tr>
<td>KPM</td>
<td>Key Performance Measure</td>
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<tr>
<td>MCEETYA</td>
<td>Ministerial Council for Education, Employment, Training and Youth Affairs</td>
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<tr>
<td>NAP</td>
<td>National Assessment Program</td>
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<td>NCCO</td>
<td>National Curriculum Coordination Committee</td>
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<td>NMAG</td>
<td>National Measurement Assessment Group</td>
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<tr>
<td>PISA</td>
<td>OECD Program for International Student Assessment</td>
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<td>PMRT</td>
<td>Performance Measurement Assessment Program</td>
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<td>PWA</td>
<td>Primary Writing Assessment</td>
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<td>SMART</td>
<td>Schools Measurement Assessment Reporting Toolkit</td>
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<td>SNAP</td>
<td>Secondary Numeracy Assessment Program</td>
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<td>TIMSS</td>
<td>Trends in International Mathematics and Science Study</td>
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Chapter One

OVERVIEW

1.1 Background

In March 1997 all State, Territory and Commonwealth Education Ministers agreed on a national goal which stated that every child leaving primary school should be numerate and able to read, write and spell at an appropriate level (National Report on Schooling in Australia, 2000, p. 2). A National Literacy and Numeracy Plan was implemented which included the development of national benchmarks for each of years 3, 5 and 7, the assessment of students against these benchmarks and the national reporting of benchmark data.

A nationally agreed procedure was developed to equate state and territory tests to ensure that the reporting of student achievement data against the literacy and numeracy benchmarks was comparable. This procedure has been in place since 2001 and has been administered by the Performance Measurement and Reporting Taskforce’s (PMRT’s) Benchmarking and Educational Measurement Unit (BEMU).

This process allowed states and territories to conduct assessments within their own jurisdictions to meet local curriculum requirements as well as to meet Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) and PMRT agreements regarding the assessing and reporting of literacy and numeracy standards. The current program of national assessments was endorsed by MCEETYA in 2002 when it approved the first version of the Measurement Framework, and supported in December 2003 by the PMRT. In December 2004 PMRT recommended that the practice of allowing states to retain their own annual full cohort tests of literacy and numeracy be continued, and that common items be administered to a random sample of 700 students each year to assist the benchmarking of state standards. A trial was proposed for early 2006.

The Australian Government’s regulations to the Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004, however, requires that school authorities will implement before 1 January 2008 common testing standards, including common national tests in numeracy and literacy. Under the Regulations the relevant authority must ensure that each school administers a common national test before 1 January 2008 to each child who:

i) attends the school; and

ii) undertakes at the school a standardised assessment in reading, writing, spelling and numeracy at Years 3, 5, 7 and 9.
Subsequently, all Ministers agreed to delay full implementation of the national statements until May 2008.

These regulations, which overturned previous decisions of MCEETYA as implemented by PMRT, obviously impact on the testing programs of states and territories. The major issue is that of accommodating the provisions in the Act without losing the integrity of local assessment and reporting programs.

The New South Wales state-wide numeracy and literacy tests for government schools comprise the Basic Skills Test (BST) and Primary Writing Assessment Test (PWA) in years 3 and 5, English Language and Literacy Assessment (ELLA) and Secondary Numeracy Assessment Program (SNAP) in years 7 and 8. These tests are now also widely used in non-government schools. Two further tests have been proposed: Computing Skills Assessment (Year 6) and the Essential Secondary Science Assessment (Year 8).

These tests serve two purposes: the first is to improve the learning outcomes of students in numeracy and literacy and the second is to inform the Minister on the performance of students in public schools in these two areas. Parents are informed about how their children are performing against standards, schools are given useful diagnostic information about learning outcomes and changes in achievement levels can be monitored. Appropriate statistical methods are used to place the results from the three series of tests (years 3, 5 and 7) on a single scale, allowing the progress of students to be measured and the impact of schools to be assessed.

In 2005 the NSW Education Minister, Ms Carmel Tebbutt, asked for a review of these state-wide assessment programs in the light of national initiatives in assessment. The following section details the terms of reference and the aims of the review.

1.2 Project Aims

The overall aim was to examine the implications of the *Schools Assistance Act 2004* for the NSW assessment program, in particular to determine:

1. which components operate most effectively
2. whether reforms are needed
3. how best to shape the national assessment program so that it reflects the twin aims of achieving accountability while maintaining the richness of assessments for teaching
and learning enhancement in such a way that avoids unduly burdening teachers and schools.

The terms of reference were to:

1. identify the essential criteria for effective student performance assessment in order to ensure quality evaluation of student performance, coherence with the curriculum, capacity to tailor teaching and learning strategies and opportunities for improving student outcomes
2. examine the purpose, development, method, setting, timing, cost, reporting and feedback (provided or planned) for each NSW assessment in the growing national requirements governing timing, content, scope and reporting of assessments at years 3, 5, 7, 9 and 12
3. examine trends in performance data and reporting, including national consistency issues and NSW performance in national benchmarks over the period of state-wide assessment practice
4. evaluate the effectiveness and efficiency of the current NSW assessment arrangements including value for money and coordination between the NSW Department of Education and Training and the NSW Board of Studies, and compare with existing and proposed national assessments, international approaches and those of other states and territories
5. recommend improvements that will assist alignment with national requirements and, more generally, enhance high expectations for student educational outcomes
6. propose improvements aimed at producing better numeracy outcomes
7. examine the impact of the transition of students from primary to secondary schools on their numeracy performance, and identify the steps that schools can take to improve support for students over this period.

The project is structured around the following four issues:

1. the role of state-wide/national tests in enhancing teaching and learning: how information is used by schools and systems for diagnostic and accountability purposes
2. the NSW assessment program and its relationship with the national framework: an analysis of the current NSW assessment processes, the assessment processes in other states and territories, what can be tested nationally and what must be maintained in NSW tests, and implications for reporting to students and schools
3. trends in performance data and reporting: national consistency issues and NSW performance in national benchmarks over the period of state-wide assessment practice
4. numeracy outcomes in Year 7 and the impact of transition
1.3 Methodology

A mix of methodologies was employed, which included a review of previous and current research, document analysis, a state-wide survey and interviews.

The first step was a review of previous and current research on large-scale testing programs in Australia and overseas. This focused on the roles of such testing programs, the tension between feedback and accountability, and how information from these programs is used by schools, educational authorities and governments.

The second step involved interviews with relevant officers in the NSW Department of Education and Training (DET), PMRT and other educational agencies in the States and territories. This had two aims: to access documents and information that may not be readily available in the public domain and to explore issues that arise.

The third step involved a survey of government and non-government schools to determine the views of principals and teachers on the way information from state-wide testing programs is used in schools. A systematic random sampling procedure was used to select the target sample. This survey was followed by a series of interviews with principals and teachers in a number of primary and high schools to examine in depth issues raised in the state-wide survey and to examine the effect of transition on numeracy outcomes in New South Wales. The schools were chosen to obtain a mix of socio-economic/non-English speaking background (NESB) combinations, urban and rural, and in the case of high schools, selective and comprehensive.

Written submissions were received from several organisations including those associated with the project’s Reference Group. A list is provided in Appendix (A1).

1.4 Administration of the review

The researcher was advised by a Reference Group comprising representatives from the following organisations (Table 1.1).
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<table>
<thead>
<tr>
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<th>Organisation</th>
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<tr>
<td>Leslie Loble</td>
<td>Deputy Director-General Strategic Planning and Regulation</td>
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<tr>
<td>(Chair)</td>
<td>Department of Education and Training</td>
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<tr>
<td>Rosalie Nott</td>
<td>Assistant Director</td>
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<td>Catholic Education Commission of NSW</td>
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<tr>
<td>Robyn Yates</td>
<td>Director</td>
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<td>Professional Services</td>
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<td>Association of Independent Schools</td>
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<td>Gordon Stanley</td>
<td>President</td>
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<tr>
<td>Jennifer Leete/ Wendy</td>
<td>Deputy President</td>
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<tr>
<td>Currie(^1)</td>
<td>NSW Teachers Federation</td>
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<tr>
<td>Chris Bonnor/Jim McAl</td>
<td>President</td>
</tr>
<tr>
<td>pine(^1)</td>
<td>NSW Secondary Principals Council</td>
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<tr>
<td>Roger Pryor</td>
<td>President</td>
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<tr>
<td></td>
<td>Primary Principals Association</td>
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<tr>
<td>Sharryn Brownlee/Diane</td>
<td>President</td>
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<tr>
<td>Butland(^1)</td>
<td>Federation of Parents &amp; Citizens’ Association NSW</td>
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<tr>
<td>Christine Ewan</td>
<td>General Manager</td>
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<td>Gillian Shadwick</td>
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<tr>
<td>Brian Davies</td>
<td>Manager</td>
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<td>(Executive Officer)</td>
<td>Research and Analysis</td>
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<td>Department of Education and Training</td>
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\(^1\) Representative changed during the course of the review

1.5  Outline of report

The report commences with an overview of national initiatives leading up to the *Schools Assistance Act Regulations 2005* to frame the issues examined in the review. To describe the context, Chapter 3 outlines the current New South Wales testing programs. Chapter 4 contains a brief literature review of current assessment practice and identifies the qualities that large-scale testing programs must have if they are to lead to improved teaching and learning in schools. Chapter 5 presents an evaluation of the NSW state-wide tests of numeracy and literacy against these qualities before a report on trends in NSW students’ achievements on existing tests in Chapter 6, and an evaluation of the proposed national framework in Chapter 7. The implications of the national assessment program for New South Wales are discussed in Chapter 8, followed by a framework for NSW assessment programs, drawing on data from the surveys, interviews and current research. The Appendices contain copies of the survey.
questionnaires, interview schedules and lists of people, schools and organisations consulted during the review.
Chapter Two  THE NATIONAL SCENE

2.1. Introduction

This chapter describes the key features of the national agenda set in an historical context and the issues which will be examined in later chapters.

The Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004 and Regulations indicate clearly that the current national agenda is to achieve greater consistency in curriculum through a set of Statements of Learning, and common reporting standards through national reporting requirements and national tests. The rationale for the agenda, which will be briefly discussed in this chapter, is that increased school accountability will lead to improved student achievement (Dawkins, 1988; Kemp, 1998). This is not a new agenda and, in contrast with previous attempts to achieve curriculum consistency and uniform reporting frameworks which relied on collaboration between the states and territories and which failed, this agenda is being implemented through legislative means. The Act and its provisions were accepted by all state and territory ministers in May 2005.

The priorities in this 2004 Act, which focus on the compulsory years of schooling, have been supplemented by the recently released report, Australian Certificate of Education – Exploring a Way Forward (Masters, 2006), which recommends greater consistency in curriculum and reporting standards in the final two years of schooling, and the introduction of a national Key Capabilities Assessment during Year 12.

2.2 The Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004

The current national priorities for schools were outlined by Dr Brendan Nelson, the then Minister for Education and Training, in a speech detailing the Commonwealth Government’s Plan for Higher Standards and Values presented at the 2003 Pursuing Opportunity and Prosperity Conference (Nelson, 2003). Most of these priorities were then incorporated as conditions in the Regulations to the Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004. These Regulations encompassed common national tests, national benchmarks, national standards, performance measures, student reports and availability of school performance information to the public, together with timelines for implementation. These requirements are detailed in the following sections: 2.2.1 to 2.2.4.
2.2.1 National tests and standards

The Act requires the implementation of common national standards and tests in English, Mathematics, Science, Civics and Citizenship, and ICT, before 1 January 2008. Full cohort tests are required for numeracy and literacy in each of years 3, 5, 7 and 9 and triennial national sample tests in each of the other areas. Results from these national tests will be supplemented by international benchmarking through sample testing of 15-year-olds in reading, mathematical and scientific literacy, using the OECD’s Program for International Student Assessment (PISA), and through sample testing of Year 4 and Year 8 students in Mathematics and Science using the Trends in International Mathematics and Science Study (TIMSS).

Student performance on the common national tests for numeracy and literacy will be reported against benchmarks while performance on the remaining tests will be reported against what are termed proficient levels.

2.2.2 Student reports

The 2004 Schools Assistance Act also requires that student reports provide an accurate and objective assessment of a child’s achievement against national standards, where available, and against the child’s peer group at the school. It outlines a number of specific requirements including the following:

(1) a student report must specify, for each program year, a required framework for relative and comparative reporting of a child’s progress and achievement against the performance of the child’s peer group at the school.

(2) (a) if the child undertakes a standard assessment in reading, writing, spelling and numeracy at Year 3, 5, 7 or 9, one of the student reports for the program year must include the result of that assessment against appropriate national benchmarks; and
(b) if the child undertakes a standard assessment in reading, writing, spelling and numeracy at Year 3, 5, 7, or 9, one of the student reports for the program year must include the result of that assessment against achievement levels or bands; and
(c) if the child undertakes a standard assessment in reading, writing, spelling and numeracy at Year 3, 5, 7, or 9, one of the student reports for the program year must include the average achievement of the child’s peer group at the school against achievement levels or bands; and
(d) the student report must include, for subjects studied, an assessment against achievement levels or bands defined by the education authority or school, being levels or bands that:

(i) must be labelled as A, B, C, D, E (or an equivalent); and
(ii) should be clearly defined against specific learning standards; and

(e) the student report must also include, for subjects studied, the child’s achievement relative to the achievement of the child’s peer group at the school by at least quartile bands (DEST, 2005, p. 1).

2.2.3 Curriculum consistency

The Act requires the development of national Statements of Learning for English, Mathematics, Science, Civics and Citizenship, and ICT. Under the legislation, states and territories are required to incorporate these national statements into their curriculum documents when these documents are next reviewed.

2.2.4 Australian Certificate of Education

The Masters Report has recommended that all students in the final years of secondary schooling be given access to the Australian Certificate of Education. Following agreement to incorporate essential curriculum content in nominated subjects, to report against common standards, and to incorporate the Key Capabilities Assessment, each of the existing senior certificates would be eligible to become the Australian Certificate of Education (Masters, 2006, p. x).

At the time of writing no firm decision has been taken by MCEETYA about the ACE but comments from jurisdictions are being collected.

2.3 Background to current national initiatives in curriculum, testing and reporting

There is a long history of interest in levels of literacy within the country. The earliest attempts to identify the number of adults with minimal levels of literacy were based on questions included in the national censuses to determine whether each person could read or write. Regular reports documented the increase in literacy levels in each state (Keeves & Bourke, 1976). This practice was discontinued in the 1930s because the number of adults identified as
illiterate was insignificant and it was recognised that accurate information could not be obtained by such a method.

Perhaps the first systematic Australia-wide study of numeracy and literacy levels in school students was the survey initiated by the House of Representatives Select Committee on Specific Learning Difficulties (Keeves & Bourke, 1976) whose terms of reference included:

- identifying specific tasks and competencies associated with the basic skills of numeracy and literacy which children are expected to possess to enable them to participate successfully in the work of the school and to live and work effectively in Australian society;
- to prepare appropriate performance tests to measure levels of competence in the basic skills of reading, writing and numeration; and
- to estimate with a high level of accuracy for Australia as a whole, and for each State in particular, the number of children who are failing to attain basic skills in numeracy and literacy as assessed by the tests (pp. 8, 9).

The researchers argued that their purpose was:

- not to derive specific recommendations for educational practices in Australia … [but]
- … the identification of the tasks which are important for literacy and numeracy and the estimation, for Australia as a whole, of the proportion and numbers of students aged 10 and 14 years who are unable to complete these tasks successfully. Simple solutions to the problems exposed do not exist (p. 108).

Their study could thus be seen as the first of the benchmark studies which emerged 25 years later.

In 1976 the Education Research Development Committee (ERDC) established a study group to investigate whether a program for the national assessment of educational progress was necessary. After reviewing national programs in other countries the committee argued that:

- attempts to monitor national educational progress using standardised tests are likely to have little usefulness for national policy-making or for upgrading the quality of education and would not justify the expenditure involved; and there appears no justification for the establishment of a national agency for assessment, or the superstructure for such (ERDC, 1980, p. 35).

In contrast to the previous study, they recommended that:

- because the individual school is the focal point of action to improve quality and achievement in education, it should be the primary agent in carrying out assessment
which has as its purposes the monitoring and improvement of the overall quality of education. The measurement of progress by the individual pupil is an important part of this process (ERDC, 1980, p. 35).

While there were earlier attempts to achieve greater consistency in curriculum across the states and territories (Marsh, 1994) the genesis for current curriculum and assessment reform can be found in a speech by John Dawkins, the then Commonwealth Minister for Employment, Education and Training, who argued for:

the development of a common framework that sets out the major areas of knowledge and the most appropriate mix of skills and experience for students in all years of schooling, but accommodates the different or specific curriculum needs of different parts of Australia. There is a need for regular assessment of the effectiveness and standards of our schools. A common curriculum framework should be complemented by a common national approach to assessment. We need to examine how schools can report to parents and the community; how school systems can report on broader objectives, strategies and educational outcomes; and we need to develop a method for reporting to the nation on how well our schools are performing against established goals (Dawkins, 1988, pp. 4-6).

Dawkin’s speech was followed by the Hobart Declaration on Schooling in 1989 which specified ten national goals for schooling to provide a:

framework for co-operation between schools, States and territories and the Commonwealth ... to assist schools and school systems to develop specific objectives and strategies, particularly in the areas of curriculum and assessment...[An Annual National Report on Schooling in Australia will] monitor schools’ achievements and their progress towards meeting the agreed national goals ...[and] will increase public awareness of the performance of our schools as well as make schools more accountable to the Australian people (MCEETYA, 1989, p. 1).

As a consequence, the states and territories collaborated on the development of national Statements and Profiles. National Statements represented what was regarded as the common core of learning in each of the Key Learning Areas. These Statements were not designed as syllabus documents but were to provide frameworks around which states and territories could each build their own curriculum. Profiles provided a national framework for reporting student achievement by defining levels of achievement and the outcomes to be demonstrated at each level. Work samples were developed to illustrate the standards at each of the levels. Levels
were not related to age or grade levels and standardised external examinations were not considered necessary.

In contrast to the national curriculum model implemented in the United Kingdom (Marsh, 1994) the Statements and Profiles model gave states and territories freedom to develop their own curriculum and syllabus documents, and gave schools freedom to develop their own assessment models. Despite this freedom, the Statements and Profiles were not implemented uniformly across Australia. An Australian Education Council (AEC) meeting in July 1993 did not accept the Statements and Profiles, instead referring them back to the states and territories for review and local implementation (Marsh, 1994).

In 1996 MCEETYA agreed that there should be a new national goal in literacy and that development should commence on agreed national frameworks for reporting achievement in both literacy and numeracy, limited in scope to essential elements to which all states and territories could give assent, and benchmarked against stages in a child’s schooling. This new national goal was that every child leaving primary school should be numerate, and be able to read, write and spell at an appropriate level (MCEETYA, 1999, p. 1).

All states and territories cooperated with the Commonwealth in 1996 to conduct the first National School English Literacy Survey (Masters & Forster, 1997) the data from which were analysed and reported against a set of achievement scales constructed for the survey. However, as there were no comparable data from previous assessments, it was not possible to detect any change over time.

In 1997 State and Territory Ministers agreed to the implementation of a National Literacy and Numeracy Plan, the essential features of which were:

- Early assessment and intervention for students at risk of not achieving minimum required standards
- Development of national benchmarks for each of years 3, 5 and 7
- Assessment of student progress against these benchmarks
- National reporting of benchmark data
- Professional development for teachers (MCEETYA, 1998)

The Adelaide Declaration for Schooling (MCEETYA, 1999) reinforced and elaborated on the ten goals of schooling specified in the Hobart Declaration (MCEETYA, 1989). In terms of curriculum the Declaration stated that students should have:
• attained high standards of knowledge, skills and understanding through a comprehensive and balanced curriculum in the compulsory years of schooling encompassing the agreed eight key learning areas:
  o The arts
  o English
  o Human Society and Environment
  o Health and Physical Education
  o Information and Communication Technology
  o Languages other than English
  o Mathematics
  o Science
• attained the skills of numeracy and English literacy such that every student should be numerate, able to read, write, spell and communicate at an appropriate level
• participated in programs of vocational learning during the compulsory years and have participated in programs and activities which foster and develop enterprise skills, including those skills which will allow them maximum flexibility and adaptability in the future
• had access to vocational education and training programs as part of their senior secondary studies (MCEETYA, 1999).

In his Keynote address to the Curriculum Corporation 6th National Conference, at which the Adelaide Declaration for Schooling was discussed, Dr David Kemp, the then Minister for Education, Training and Youth Affairs outlined his vision for outcomes reporting and school accountability:

_We can't be sure that our education system is serving all young Australians as they deserve unless we have ways of measuring and reporting the outcomes of schooling nationally. The community has a reasonable expectation that the massive public and private investment in school education should lead to appropriate improvements in skill levels and general educational attainment of our young people. To determine the extent of improvement in broad terms, data has to be collected about how students are accessing schooling, the ways they are participating in it, how they are achieving, and where they are going after they leave school. Good accountability relies on good reporting – at all levels, the school level, the systemic authority or State level, and nationally._
The Australian Government has a direct interest in school reporting and accountability for a number of important reasons:

- to help improve student outcomes
- to help make schools more effective
- to help make our own programs better

The national government has a stake in the improvement of the educational outcomes of all young Australians – for economic reasons, and for reasons of equity. Clear national goals for schooling and nationally comparable outcomes reporting are crucial to this. The Commonwealth is giving priority in particular to improving outcomes in key areas such as literacy and numeracy, and to improving the outcomes of Indigenous students.

Nationally comparable reporting is vital in improving the effectiveness of all Australian schools (Kemp, 1998, p. 1).

Kemp’s vision was the same as that of Dawkins in 1989 but the response to the national priorities at this time differed from that of a decade earlier. At that time, curriculum reform, common standards and common reporting frameworks were considered together. Statements of Learning were first developed which identified the essential knowledge, skills and a learning continuum for each of the Key Learning Areas. Sets of broad outcomes were then developed to define several developmental standards along this learning continuum to provide a framework for reporting. The final step was to specify sets of indicators and work samples to illustrate how students could demonstrate that they had achieved the outcomes at the various levels.

In contrast to the response to the Hobart Declaration, the intended response to the Adelaide Declaration was to first develop a set of Key Performance Measures (KPMs), which included the agreed national literacy and numeracy benchmarks, and then to develop Statements of Learning in each of the eight Key Learning Areas. Curriculum reform and the development of performance measures were clearly seen as separate priorities and developed by different committees. The Performance Measurement Reporting Taskforce (PMRT) was responsible for developing the KPMs and the Steering Committee for National Curriculum Coordinating Outcomes (NCCO) was responsible for developing the Statements of Learning. The result of this strategy, which will be discussed in detail in Chapter 6, is an inconsistent set of performance measures, and measures that are not necessarily consistent with the Statements of Learning.
2.4 Key Performance Measures

National KPMs, a set of measures limited in number and strategic in orientation, that provide nationally comparable data on aspects of performance critical to monitoring progress against the national Goals of Schooling in the 21st Century, were agreed to by MCEETYA in 2000 (MCEETYA, 2003, p. 1).

Development of these measures was underpinned by the following principles:

- student outcomes information is the focus of the reporting agenda
- performance measures take account of state and territory curriculum and assessment frameworks
- 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
- collection and use of data for national purposes will in all respects conform to the guidelines provided in the report Data Principles and Protocols
- access to data collections will be available to interested parties subject to privacy and confidentiality provisions, and the provisions of the Census and Statistics Act.
- 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
- the key performance measures enable the range of student achievement to be reported (MCEETYA, 2003).

The Key Performance Measures were to be used as the basis of reporting in the following priority areas:

- literacy
- numeracy
- science
- information and communication technology
- vocational education and training in school participation and citizen education

Data reported in the Annual National Reports were to be reported for student cohorts disaggregated by:

- sex
- language background
In 2004 MCEETYA agreed to changes to the Measurement Framework for National KPMs by:

- 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 policy (MCEETYA, 2005).

MCEETYA made further changes in 2005 by agreeing to:

- implement common national tests in literacy and numeracy at Years 3, 5, 7 and 9
- incorporate the TIMSS mathematics and science sample assessment at years 4 and 8
- develop agreed national standards
- develop nationally comparable measures of student attendance (MCEETYA, 2005).

In summary, the current Key Performance Measures are derived from full cohort tests, light sample tests and census data, and include measures reported at individual level, percentages of students reaching specified standards, and participation rates.

The full cohort tests, which will commence in 2008, will be used to report the achievement of individual students against national benchmarks in numeracy and literacy. National benchmarks, which are minimum standards without which a student would have difficulty progressing at school, have been developed for each of Years 3, 5, and 7, and are currently being developed for Year 9. If Masters’ recommendations (Masters, 2006) are accepted, an additional common national test will be administered to all final year students and student achievement in selected courses will be reported against common standards.

The purpose of the National Assessment Program is to provide information on the percentage of students achieving specified standards in Science literacy, ICT literacy and Civics and Citizenship from light sample tests, including both national and international tests: PISA for 15 year old students in Mathematics, Science literacy and Reading; TIMSS for Years 4 and 8 in Mathematics and Science; and national tests in Science literacy (Year 6), ICT literacy (Years 6 and 10), and Civics and Citizenship (Years 6 and 10). Tests will be administered to
national samples of students every three years (except for TIMSS which is on a four year cycle) and proficient standards have been/will be defined for each test. Table 2.1 describes the testing timetable for the years 2003 to 2010. While one can appreciate the reasons for choosing the above mix of tests, the result of this strategy is that there is little consistency in the type of tests and the standards against which student achievement is assessed.

Table 2.1  Details of Key Performance Measures and data collection cycle

<table>
<thead>
<tr>
<th>Measure</th>
<th>Year level</th>
<th>Cycle Type</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>Literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% achieving at or above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading benchmark</td>
<td>years</td>
<td>annual</td>
<td>full cohort</td>
</tr>
<tr>
<td>Writing benchmark</td>
<td>years</td>
<td>annual</td>
<td>full cohort</td>
</tr>
<tr>
<td>Spelling benchmark</td>
<td>years</td>
<td>annual</td>
<td>full cohort</td>
</tr>
<tr>
<td>Proficient standard on PISA reading scale</td>
<td>15 year olds</td>
<td>triennial</td>
<td>sample</td>
</tr>
<tr>
<td>Numeracy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% achieving at or above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numeracy benchmark</td>
<td>years</td>
<td>annual</td>
<td>full cohort</td>
</tr>
<tr>
<td>Proficient standard on PISA mathematics scale</td>
<td>15 year olds</td>
<td>triennial</td>
<td>sample</td>
</tr>
<tr>
<td>Proficient standard on TIMSS mathematics scale</td>
<td>years</td>
<td>quadrennial</td>
<td>sample</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% achieving at or above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficient standard in scientific literacy</td>
<td>year</td>
<td>triennial</td>
<td>Sample (NAP)</td>
</tr>
<tr>
<td>At or above OECD mean score on PISA science scale</td>
<td>15 year olds</td>
<td>triennial</td>
<td>Sample</td>
</tr>
<tr>
<td>Proficient standard on TIMSS science scale</td>
<td>years</td>
<td>quadrennial</td>
<td>Sample</td>
</tr>
</tbody>
</table>

Notes:  
1 Benchmark – a minimum standard without which a student would have difficulty progressing at school.  
2 State and Territory tests to 2006, national tests from 2007  
3 National test from 2007  
4 For PISA reading, the proficient standard is level 3  
5 Under consideration  
6 Band 3.2 within National Assessment Program  
7 Standard to be set following results of PISA 2006
Table 2.1 (contd) Details of Key Performance Measures and data collection cycle

<table>
<thead>
<tr>
<th>Measure</th>
<th>Year level</th>
<th>Cycle Type</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civics &amp; citizenship % achieving at or above</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficient standard in civic knowledge and understanding⁸</td>
<td>years 6, 10</td>
<td>triennial Sample (NAP)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Proficient standard in citizenship, participation⁹</td>
<td>years 6, 10</td>
<td>triennial Sample (NAP)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Information &amp; Communication Technology % achieving at or above</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficient standard in ICT⁹</td>
<td>years 6, 10</td>
<td>triennial Sample (NAP)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>VET in schools Participation</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% school students undertaking VET in school</td>
<td>senior secondary</td>
<td>annual NCVER</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>VET in schools Attainment</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of students who achieve at least one VET unit of competency/module</td>
<td>senior secondary</td>
<td>annual NCVER</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Student participation

<table>
<thead>
<tr>
<th>Measure</th>
<th>Year level</th>
<th>Cycle Type</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>% 15-19 year olds in full-time/part-time training, work or training</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 20-24 year olds by single year of age, in full-time education, full-time work, part-time work and training</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student attainment

<table>
<thead>
<tr>
<th>Measure</th>
<th>Year level</th>
<th>Cycle Type</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>% 20-24 year olds who have completed year 12 or equivalent or gained a qualification at AQF level 2 or above</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 25-29 year olds who have completed year 12 or equivalent or gained a post-school qualification at AQF level 3 or above</td>
<td>2003 2004 2005 2006 2007 2008 2009 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student attendance

| Measure under development | 2003 2004 2005 2006 2007 2008 2009 2010 |

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⁸ National Assessment Program
⁹ Standards to be set in 2006 following first cycle of testing
2.4.1 Assumptions and questions

Underlying the current national curriculum and assessment agenda are the assumptions that greater accountability leads to improvements in teaching and learning in schools, and that these improvements result in enhanced student outcomes. The first assumption will be tested in Chapter 5, but the second assumption requires longitudinal data which are not available. Before examining the questions about causality there are two prior questions that have to be asked about the current Key Performance Measures. What conclusions about Australia’s schools can be drawn from data collected from these KPMs? Will the data allow systems and governments to determine the extent to which the National Goals for Schooling are being achieved?

The national numeracy and literacy tests will provide information about the proportions of students who have achieved the nationally agreed minimum acceptable standards in these areas and how these proportions change over time. If the only reporting at a national level is against the benchmarks, these tests will not inform governments on the extent to which students have attained high standards of knowledge, skills and understandings in English and Mathematics.

The national tests for ICT literacy, Civics and Citizenship, and Science literacy will provide information on the proportions of students achieving at specified levels in all these areas at Year 6 and for two of the areas in Year 10. Reporting student achievement at years 6 and 10 on a common scale, which is necessary to assess growth, will be difficult because of the additional content and skills acquired during the intervening four years. This issue will be discussed in depth in Chapter 6.

TIMSS and PISA permit comparisons to be made against the achievement of students in other countries that participate in these testing programs in areas of Mathematics, Science literacy and Reading. While such measures are useful for broad cross-national comparisons they appear of limited utility for measurement of progress towards the National Goals.

It is therefore probable that, with the exception of numeracy and literacy, data from the current KPMs will not be sufficient to determine the extent to which the National Goals of Schooling are achieved. At best, the remaining KPMs will provide information about the level of achievement against proficient standards in a limited number of the eight key learning areas and no information will be available about the percentage of students reaching high standards.
2.5 Statements of Learning

Key Performance Measures are not the only focus of the national reform agenda. The Australian Government is also committed to the development of Statements of Learning in several curriculum domains at Years 3, 5, 7 and 9 in order to build greater national consistency in curriculum outcomes. States and territories are required to implement these Statements of Learning either as part of their next curriculum review, if that occurs between 2006 and 2008, or before 1 January 2008. The first Statement of Learning, English, was approved in February 2005, and other Statements of Learning have just been completed (AESOC, 2005). Masters (2006) recommends that Statements of Learning be developed also for courses in the final years of schooling, and that these be incorporated into state and territory curriculum documents.

MCEETYA’s intention was that Statements of Learning were not to be the basis for national standards and national tests. The focus of these statements is on curriculum, what students should be given the opportunity to learn, whereas the focus of the national common tests of numeracy and literacy is on standards, in particular the minimum standards expected to be achieved by all students at defined stages of their schooling. A consequence of MCEETYA’s decision was that Statements of Learning and the assessment domains for the benchmark tests were developed in different contexts, by different groups at different times (AESOC, 2005). PMRT was given responsibility for the KPMs and the Curriculum Corporation was commissioned to undertake the development of the Statements of Learning under the oversight of the National Consistency in Curriculum Outcomes (NCCO) Steering Committee.

2.6 Comparable reporting

A strong emphasis of the Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004 is on reporting. The provisions of the Act require that a common framework be used for reporting student achievement against standards using grades A to E for school assessment and the results from any standardised tests, and that school reports include position in relation to peer group using at least quartiles. Similarily, Masters (2006) recommended that common standards be developed for reporting student achievement in the proposed Australian Certificate of Education in Year 12.
2.7 What are the issues?

The stated purposes of the current national initiatives are to achieve greater consistencies in curriculum, assessment and reporting. The extent to which each purpose may be achieved cannot be fully determined at this stage, but some issues emerge. It is possible that the first outcome of curriculum consistencies may be achieved in specified areas through the national Statements of Learning being incorporated into state and territory curriculum documents. The second outcome, comparability of assessment, will be achieved in numeracy and literacy through the common national full cohort tests. The extension to other Key Learning Areas remains problematic. Finally, in terms of reporting, most states and territories have incorporated the reporting features specified in the Regulations of the *Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004*, but that does not necessarily mean common reporting standards.

What might be seen a fundamental flaw in the national agenda is not the purpose but the process. As will be demonstrated in Chapter 4, good assessment depends on clarity of purpose, strong links to curriculum, test specification and reporting standards. The appropriate sequence is curriculum, assessment framework, performance standards, reporting and timely feedback. Behind the national agenda is a clear purpose but the strong links between curriculum, assessment and reporting are missing.

There are also administrative issues surrounding the national testing agenda: test development and administration, marking, standards and reporting; timing; Commonwealth/state and territory responsibilities; and resourcing. These will be discussed in following chapters. To set the context for the project the NSW testing programs will be described in the following chapter.
Chapter Three  THE NEW SOUTH WALES TESTING PROGRAM

3.1 Introduction

New South Wales has a different structure to most states, with the NSW Board of Studies and the Department of Education and Training (DET) having distinct but related roles in curriculum and assessment. Both agencies report to the NSW Minister of Education and Training who, under the Education Reform Act of 1990, has the statutory responsibility for all schools, government and non-government, in New South Wales. Within DET the Educational Measurement and School Accountability Directorate (EMSAD) has specific responsibility in the areas of state tests and school accountability.

This chapter presents an overview of the relative responsibilities of the DET and the Board in relation to curriculum development and testing, and a description of the NSW testing program. Material from this chapter has been taken from official documents and submissions received from relevant agencies.

3.2 Curriculum

The Board of Studies is a statutory authority established under the NSW Education Reform Act 1990, reporting to the Minister, whose responsibilities include developing syllabus documents K-12 which are available for implementation in government and non-government schools. To meet the requirements of the School Certificate and the Higher School Certificate schools are required to use Board developed or endorsed courses.

The Board and the DET, together with other systems and schools, share responsibility for curriculum support and implementation. In practice, the DET and the Board co-ordinate the development of support materials, and avoid duplication. The Board is required to prepare and make available to schools curriculum support materials. Systems and schools may choose whether or not to use these materials.

The NSW Director-General of Education is responsible for the quality of teaching and the effectiveness of learning in government schools. The DET is therefore responsible for ensuring the provision of adequate and appropriate support materials for teachers in government schools.
3.3 **Professional development of teachers**

The professional development of staff is the responsibility of schools and systems. Accordingly, the DET is responsible for the training and development of teachers in government schools and for ensuring that they are able to implement Board syllabuses effectively within the public school system. The Board's responsibilities in professional development are restricted to matters associated with elucidation of Board curriculum documents and assessment requirements relating to the credentials awarded by the Board.

3.4 **Assessment and Reporting**

The Board of Studies has responsibility for specifying outcomes in all Board syllabuses and establishing the relationship between these outcomes and any standards framework. Where the specification of standards is part of the recognised credentials, the Board has statutory authority. The Board also has responsibility for examinations and other assessment associated with the School Certificate and the Higher School Certificate. In the establishment of the relationship between any standards framework and its syllabuses, the Board will work through its normal processes of consultation, involving all major stakeholders as appropriate.

The DET has responsibility for the development of assessment and reporting policies and guidelines for government school teachers and students in all other contexts across K-12. This responsibility includes implementation of state-wide literacy and numeracy tests, that establish standards in the areas they encompass, in public schools.

3.5 **Educational Measurement and Schools Accountability Directorate**

The Educational Measurement Directorate was established in November 2003 to facilitate state-wide testing and reporting, selection processes for opportunity classes and selective high school placements, systemic data analysis and support for regions in data collection, analysis, school self-evaluation, annual school reporting and school reviews. In February, 2005, the Directorate’s title changed to Educational Measurement and School Accountability Directorate (EMSAD). EMSAD is responsible for the development and implementation of the state-wide literacy and numeracy assessment programs for years 3, 5, and 7.
3.5.1 Current testing programs

**Basic Skills Testing program (BST)**
The BST program provides measures of student achievement and progress in literacy and numeracy in years 3 and 5. The BST generates detailed diagnostic information about how students perform in aspects of literacy (reading and language) and numeracy (number, measurement and space).

The BST was introduced in 1989, and since 1996 vertical equating has been used to place the Year 3 and Year 5 test results on the same achievement scale. Student ability and item difficulty are estimated using the Rasch measurement model and horizontal equating is carried out each year to place marks from different years on the same scale. The effect of the horizontal and vertical equatings is to allow the performance of student cohorts to be compared over time, and for gains in individual and cohort performance from Year 3 to Year 5 to be determined.

The scale used for reporting student performance comprises six bands: for Year 3 bands 1 to 5 are used and for Year 5 all six bands are used. In addition to reporting the standard the student has achieved, the student report shows student’s position in the band and the percentage of students in the bands.

**Primary Writing Assessment (PWA)**
The Primary Writing Assessment (PWA) was introduced in 2001 but a common scale was not established until 2002. The PWA consists of two curriculum-based writing tasks, assessing factual and literary writing, for Year 3 and Year 5 students. PWA is a criterion-referenced test and results are reported on the BST literacy scale.

**English Language and Literacy Assessment (ELLA) and Secondary Numeracy Assessment Program (SNAP)**
ELLA was introduced in NSW for Year 7 students in 1998 as part of the 1997 State Literacy Strategy in NSW government schools. The program assesses whether students are competent readers and writers to the extent that they can meet the literacy demands of all subjects in the school curriculum. SNAP, which was introduced in 2001, has a similar purpose, assessing whether Year 7 students meet the numeracy demands across all the Key Learning Areas. All students in NSW government schools sit these tests, and 98% of schools choose to have their Year 8 students also sit the Year 7 tests in order to determine the extent of growth in numeracy and literacy across the first year of secondary school.
Although these tests have items in common with the corresponding Year 5 tests, which allow them to be reported on the same achievement scale, they are reported differently. Rather than having six performance bands as for the BST, four performance bands are used and designated low, satisfactory, proficient and high. No descriptions are provided for the bands. In common with the BST student reports, the ELLA and SNAP reports indicate a student’s position in a band and the percentage of students in each band. Consequently, students know the standard they have reached and have an approximate idea of their position in the cohort.

**Computer Skills Assessment for Year 6 (CSA6)**

The Computer Skills Assessment for Year 6 (CSA6) helps to determine whether students possess the necessary skills and knowledge in the use of computers to succeed at the next stage of schooling. In 2004, CSA6 was administered to the whole Year 6 cohort, including approximately 63,000 government school students and approximately 220 Catholic schools as well as 20 independent schools. Students participated in a pencil-and-paper test as well as a technologically advanced interactive on-line practical component. EMSAD has proposed that the CSA6 be reconfigured to become an on-line test which can be administered at any point in a student’s schooling, across years 4 to 8.

**Essential Secondary Science Assessment (ESSA)**

ESSA is different to the other tests as it has two roles. The first role is to provide a comprehensive report on student achievement for Stage 4 Science, and the second is to focus teacher and student attention on Science testing in preparation for international tests of Science in 2006 and 2007.

**Participation in International Studies**

*The Programme for International Student Assessment (PISA)*

PISA is a triennial assessment of 15-year-olds in literacy in Reading, Mathematics and Science. Information is also collected on student attitudes and approaches to learning through questionnaires about themselves and their schools. A total of 12,551 Australian students participated in PISA 2003. Almost 3,000 were NSW students of whom two-thirds were from government schools.

*The Trends in International Maths and Science Study (TIMSS)*

TIMSS is the latest in a series of international studies of mathematics and science, conducted under the aegis of the International Association for the Evaluation of Educational Achievement (IEA) and is conducted on a four year cycle. The 2002 TIMSS involved 4,675
Australian students in Year 4 including 912 from NSW schools and 5355 students in Year 8, 880 of whom were in NSW schools.

3.5.2 Support functions

EMSAD provides professional learning for teachers in assessment and marking of tests. Teachers are also invited to assist with the development and panelling of test items and the trialling of test materials. This process emphasises and promotes the linkages between testing, curriculum and classroom teaching and learning.

Reporting to parents and schools includes detailed diagnostic information that is linked to specific syllabus outcomes and teaching and learning strategies. This type of reporting has secured strong commitment to the testing programs from the teaching profession and the community. All reporting is standards-based and allows for individual students to be compared with state-wide student performance. Between-group comparisons and trends over time are key features of the reporting frameworks.

EMSAD produces a range of high quality publications for schools in both print and electronic format including school reports and support documents for teachers and schools. The directorate has developed sophisticated, user-friendly software to further analyse data with added functionality and flexibility at the system, region, school and class levels. This software is considered the most advanced available nationally and internationally, and is a key factor in promoting the testing programs within DET schools and in securing the ongoing involvement of non-government sector clients.

3.6 NSW Board of Studies

3.6.1 The School Certificate

The School Certificate (SC) has had a varied history since its introduction in 1965, from a fully examination based credential to one based on school assessments with reference tests to determine the distribution of grades within schools in selected subjects, and finally to its current form with a mix of school-based assessment and external examinations.

To many people, the current School Certificate credential marks the end of compulsory schooling. It records student achievement in the courses studied in Stage 5 and, from 2006, provides results in five statewide tests in areas considered foundational to subsequent achievement. Approximately 80,000 students receive the School Certificate credential each
year, and approximately 60,000 subsequently achieve a Higher School Certificate. External examinations are conducted for English Literacy, Mathematics, Science, Australian History and Civics, and Australian Geography and Computing Skills. Student achievement is reported against standards for all courses.

3.6.2 The Higher School Certificate

The Higher School Certificate (HSC) marks the end of schooling. It records student achievement in courses studied in Stage 6. In 2005 116 courses were examined. All HSC courses are based on content-rich syllabus documents to ensure that the same material is taught in all schools in New South Wales. To be eligible for the award of the credential students must satisfactorily complete a specified pattern of courses, complete at least 50% of nominated school-based assessment tasks and satisfy attendance requirements. Student achievement in a course is reported against standards and is determined by the student’s performance on a set of school-based assessment tasks and their performance on the corresponding HSC examination. The HSC student report presents a profile of achievement in courses completed.

The HSC is a high quality credential based on a detailed curriculum that has been benchmarked through syllabus reviews and other means. Following the HSC Review (McGaw, 1997) there was a major reform of Stage 6 curriculum and the associated assessment and reporting practices. Since 2001 there has been benchmarking of the curriculum and standards with the Scottish Qualifications Authority and, in relation to German, with the Goethe Institute in Munich.

3.6.3 Support functions

Like EMSAD, the Board of Studies produces high quality support material in both print and electronic format for teachers and students, including syllabus documents, HSC examination papers, reports from marking centres and standards packages. These materials, which are available to all teachers, are supplemented by the Board’s relatively new Assessment Resource Centre, a website to which the Board is progressively adding more student work samples from Kindergarten to Year 12.

Marking of the HSC examination is carried out by NSW teachers and provides them with valuable professional learning about the standards expected in Stage 6. Regional marking centres have been set up to provide country teachers with the opportunity to gain experience
in this way and reports from the marking centres are placed on the Board’s website to provide information about student performance that can be used for school planning.

3.7 The Universities Admission Index (UAI)

The Universities Admission Index is calculated by the Technical Committee on Scaling, a university committee that reports to the NSW Vice-Chancellors’ Committee. Following the McGaw Review of the HSC in 1997, distribution of the UAIs is the responsibility of the Universities Admission Centre which uses the UAIs for selection purposes. Neither the Board of Studies nor schools receive the UAIs of individual students.

3.8 Discussion

There is a clear demarcation between the responsibility of the DET and the Board of Studies in relation to curriculum development and the development and conduct of examinations. The Board conducts the School Certificate and Higher School Certificate and develops support material for all schools. The DET conducts those tests for which it is responsible and develops relevant support material for all government schools and for those non-government schools who elect to participate in the DET’s testing programs and meet the costs of their participation.

The demarcation is less clear in relation to the provision of support material for both curriculum and assessment and there is an obvious danger of overlap and inconsistent advice to schools. While the inclusion of outcomes in all syllabuses, and the use of standards referenced assessment for the Year 10 School Certificate and Year12 Higher School Certificate has resulted in a greater degree of consistency in advice, both the 2002 Vinson Report and the 2003 Eltis Review suggested that government schools were receiving mixed messages about school assessment and reporting to parents of K to Year 9 students. While the non-government sector tends to chiefly look to the Board for more detailed advice, government schools receive that direction from both the Board and the DET.

Divergent views exist about the desirability of having the DET and the Board as separate entities. On the one hand, Vinson (2002) argues for the re-incorporation of the Office of the Board with the DET whereas the non-government sector argues strongly for a single Curriculum and Assessment Authority which reflects the structure found in several other states. Under current testing regimes any overlap in function is not important provided there is consistency in advice, but introduction of the national testing program will change the
landscape as all schools, both government and non-government, will be required to participate in this program. Universal participation in these tests raises the important question of structure and finance: which agency will be responsible for analysis and reporting, resourcing and ownership of the test data and how the tests and associated activities will be financed.
Chapter Four: LARGE-SCALE ASSESSMENT PROGRAMS: A SUMMARY OF CURRENT RESEARCH

4.1 Introduction

Linn and Gronlund (2000) argue that in the past 20 years at least, governments in the US and elsewhere have used assessment as a lever for educational reform. Much of this educational reform has focused on improving student performance by making schools accountable, providing parents with choice, changing curriculum and modifying the way in which schools are resourced.

*Accountability and data are at the heart of contemporary reform efforts worldwide.*

*Accountability has become the watchword of education, with data holding a central place in the current wave of large-scale reform* (Earl, 2005, p. 1).

Although the emphasis has been on improving student achievement, the focus of many large-scale assessment programs has been the school or the system, rather than the individual student.

The growth in advocacy for *assessment for learning* (formative assessment) rather than just *assessment of learning* (summative assessment) can be seen as a reaction to this emphasis. Black and Wiliam, for example, argue that educational reforms based on large-scale assessment programs have had little or no effect on student performance and conclude that:

*assessment which is explicitly designed to promote learning, formative assessment, is the single most powerful tool we have for both raising standards and empowering lifelong learning* (ARG, 1999).

Other researchers, such as Shepard (2000), argue that these large-scale programs are not merely ineffective but trivialise education and lead to lower levels of achievement in the higher order skills. Despite the increase in criticism of large-scale testing programs, governments in many countries are continuing to rely on these tests to inform the educational debate and the formation of educational policy.

4.2 National testing programs in the US and the UK

Large-scale testing programs introduced in the US and the UK have an accountability focus but with different emphases in each country. Parental choice and school accountability were two of the main incentives for the introduction of a national curriculum and testing program.
in England, leading to the publishing of league tables of schools, with a school’s position determined by the performance of the students in that school on the national tests. School accountability is also an important factor in the *No Child Left Behind* (NCLB) initiative in the US and the program is also linked with the allocation of funding to individual schools. NCLB set a 12-year timetable for accomplishing the goal of bringing all children to a specified proficient level in basic subjects and schools that do not demonstrate adequate annual progress may suffer funding cuts. In both countries these assessment programs have been praised and criticised: praised for being responsible for improved student performance and criticised for narrowing the curriculum which leads to superficial learning and learning for the test.

4.3 **State-wide and national testing programs in Australia**

All Australian states and territories currently have similar testing programs for numeracy and literacy for years 3, 5 and 7 (Table 3.1) with the purpose of improving teaching and learning in schools. These tests are in addition to achievement examinations such as the NSW Higher School Certificate held in Year 12.

Although the tests can be used for accountability purposes the main role proposed for these tests when they were first introduced was to provide diagnostic information on students for parents and schools. School accountability was seen as a minor role. The NSW Basic Skills Tests, for example, were introduced to provide performance data on government schools at a system level, and performance and diagnostic data on individual students and schools. Only aggregated data on the performance of students in government schools were released to the public, and the results could not be used to make comparisons between schools. Neither the original purpose nor the restrictions placed on the results from the tests have changed, but improvements have been made to the reporting at both individual and school levels. Development of the School Measurement, Assessment and Reporting Toolkit (SMART) allows school principals to analyse their own results and has given greater accessibility to the data.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Name</th>
<th>Year level</th>
<th>Coverage</th>
<th>Domains</th>
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<tbody>
<tr>
<td>New South Wales</td>
<td>Basic Skills (BST)</td>
<td>3, 5</td>
<td>All government schools</td>
<td>Reading, language and numeracy</td>
</tr>
<tr>
<td></td>
<td>Primary Writing Assessment (PWA)</td>
<td>3, 5</td>
<td>Most catholic schools</td>
<td>Writing</td>
</tr>
<tr>
<td></td>
<td>English Language and Literacy Assessment (ELLA)</td>
<td>7</td>
<td>Some independent (50%) schools</td>
<td>Reading and writing</td>
</tr>
<tr>
<td></td>
<td>Secondary Numeracy Assessment Program (SNAP)</td>
<td>7</td>
<td></td>
<td>Numeracy</td>
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<tr>
<td>Victoria</td>
<td>Achievement Improvement Monitor (AIM)</td>
<td>3, 5, 7</td>
<td>Full coverage</td>
<td>Reading, writing, spelling and numeracy</td>
</tr>
<tr>
<td>Queensland</td>
<td>Aspects of Literacy and Numeracy</td>
<td>3, 5, 7</td>
<td>Full coverage</td>
<td>Reading and Viewing, writing, spelling and numeracy</td>
</tr>
<tr>
<td>South Australia</td>
<td>SA Literacy and Numeracy Test (State LaN)</td>
<td>3, 5, 7</td>
<td>All government schools</td>
<td>Reading, writing, spelling and numeracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Most independent schools use the WALNA</td>
<td></td>
</tr>
<tr>
<td>West Australia</td>
<td>WA Literacy and Numeracy Assessment (WALNA)</td>
<td>3, 5, 7</td>
<td>Full coverage</td>
<td>Reading, writing, spelling and numeracy</td>
</tr>
<tr>
<td>Tasmania</td>
<td>Literacy and Numeracy Monitoring Program</td>
<td>3, 5, 7, 9</td>
<td>All government schools</td>
<td>Reading, writing, spelling and numeracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Catholic and independent schools use LANA 2 (years 3, 5, 7)</td>
<td></td>
</tr>
<tr>
<td>Northern Territory</td>
<td>Multilevel Assessment Program (MAP)</td>
<td>3, 5, 7</td>
<td>Full coverage</td>
<td>Reading, writing, spelling and numeracy</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>ACT Assessment Program (ACTAP)</td>
<td>3, 5, 7, 9</td>
<td>Approximately 90% of students undertake ACTAP. The rest take either WALNA or LANA 2</td>
<td>Reading, writing, spelling* and numeracy</td>
</tr>
</tbody>
</table>

Note: 1 SNAP and ELLA may be repeated in Year 8  
2 LANA – Literacy and numeracy test developed by ACER  
3 Viewing, listening and speaking are included.
In all states except Victoria, numeracy includes number, measurement and space. Victorian tests covers only number, and data is included in the Queensland and South Australia numeracy tests but not in the numeracy tests administered in other states.

Although student achievement is reported against state-wide, but not national standards, the tests have been used to determine the percentage of students in each state and territory who have achieved the national benchmarks. This has been achieved through a statistical equating process which was not been uniformly accepted by state and territory jurisdictions. This practice will cease with the introduction of the common national tests, which have been outlined in Chapter 2.

4.4 Current research on assessment practice

Current research shows clearly that a requirement of high quality assessment is that it is an integral part of the teaching and learning cycle (Gardner, 2005), and that appropriate and timely feedback is provided to students. This is evident in recent work in Queensland with their rich assessment tasks; in the research conducted by a group of academics, the Assessment Reform Group, in the UK, Hattie in New Zealand and the Curriculum Corporation in Australia to name but a few; and in NSW with the DET’s Quality Teaching Program. Much of this current research has lead to an advocacy for assessment for learning rather than assessment of learning. Assessment for learning is assessment which promotes learning in students and thus leads to improved learning outcomes:

*it is the process of seeking and interpreting evidence for use by learners and their teachers, to identify where the learners are in their learning, where they need to go and how best to get there* (ARG, 2002).

Many researchers (e.g. Black & Wiliam, 2005; Hattie, 2005; Shepard, 2000) see assessment for learning as consistent with current models of pedagogy based on constructivist principles. Constructivist models of pedagogy emphasise understanding rather than rote learning, providing students with learning experiences that encourage them to discover patterns and develop skills and to construct their own understandings from the learning experiences. In contrast, formal tests are seen as assessment of learning and perceived by many researchers (e.g. Shepard, 2000) as having undesirable curriculum and pedagogical consequences which do not lead to improved learning outcomes, often referred to as “teaching to the test”.

To assist teachers to access the complex weave of classroom activities involving pedagogic style, student-teacher interaction, self-reflection, motivation and a variety of assessment
processes (Gardner, 2005, p. 2) the Assessment Reform Group (ARG) has enunciated ten principles of assessment:

- assessment for learning is part of effective planning, focuses on how students learn, is central to classroom practice, is a key professional skill, is sensitive and constructive, fosters motivation, promotes understanding of goals and criteria, helps learners to improve, develops the capacity for self-assessment and recognises all educational achievement (ARG, 2002).

The following four questions, contained in support material for the NSW Quality Teaching Program (DET, 2004) capture the essence of these ten principles in a more succinct way.

- What do you want the students to learn?
- Why does the learning matter?
- What are you going to get the students to do (or to produce)?
- How well do you expect them to do it? (p. 10)

Bruniges (2005) expressed much the same sentiments with her three questions:

- What are we assessing?
- Who are we assessing?
- Who are we assessing for?

Like Masters and Forster (2000), Hattie, Gavis & Brown (2004) and other researchers before her, Bruniges is emphasising the primacy of curriculum, the importance of the learner and the use to which information from the test will be used. The use to which assessment information is to put will determine, to a large extent, the reporting framework.

In an effective assessment program, outcomes regarded as important by the class teacher or educational authority are identified, the assessment strategy is consistent with pedagogy and appropriate to the outcomes being assessed, student achievement is judged and reported against standards, and timely feedback is provided to students and teachers alike. The focus is on student improvement.

The belief that formal tests in general and large-scale testing programs in particular cannot be regarded as anything more than summative assessment can be challenged and has been challenged by research presented at recent Australian conferences: the 2005 ACER Research Conference, the 2005 Curriculum Corporation Conference, and the 2004 and 2005 National Roundtables. Matters (2006) provides a valuable reflection on the 2005 ACER conference,
identifying the major themes and ways of moving forward. Much of the discussion reflects
the view of Masters and Forster (2000) in their seminal paper, *The assessments we need*, in
which they argued that:

- large-scale assessment programs have an important role to play in providing
dependable information for educational decision making by policy makers, system
managers, school leaders, teachers and parents (p. 1).

These researchers readily acknowledge the way that large-scale testing programs can
influence what schools and teachers do, and the undesirable consequences for curriculum and
pedagogy that can result. Consequently the purpose of their paper is to identify design
principles for a *good test*, one that will support student learning and lead to improvement in
student achievement.

These principles focus on:

- the kinds of learning addressed, the range of assessment methods used, and the ways
in which student achievements are summarised and reported (p. 5),

and the authors argue for:

- designing assessment procedures primarily to establish where all students are in their
learning, incorporating assessments of higher-order skills and thinking; including a
variety of assessment methods and procedures to provide information about a range
of valued learning outcomes; and reporting results in ways that encourage high
achievement (p. 5).

It is clear that the *good test* envisaged by Masters and Forster (2000) is more than a
benchmark test whose primary purpose is to establish whether a student has or has not met a
minimum standard: they see the purpose of the test is to establish where all students are in
their learning. To achieve this aim, an achievement continuum must first be defined in terms
of content and skills, the test items must cover the content and skills and have a range of
difficulty. There must be sufficient easy items to allow the test to be accessible to all students
and enough difficult items to challenge and provide reliable information about the more able
students. There should be the same number of items at each level of difficulty.

In contrast, a benchmark test whose primary purpose is to determine whether a child has
achieved a specified standard will have the majority of its items set at or near the specified
standard. The result is that the test can accurately determine whether a child has achieved the
benchmark but provides little information about the standard the child can achieve.
In a recent paper, Hattie et al. (2005) extended the principles enunciated by Masters and Forster (2000) by including alternative forms of assessment and emphasising the importance of curriculum and feedback. They concluded that national assessment should:

- mirror what is important and make rich ideas rather than items dominant
- use more than tests to communicate standards
- ensure ‘national’ comparability data information is available (but avoid) league tables
- aim to enhance teaching and learning and ensure that teachers value the assessment as part of teaching
- assess what has been taught rather than teach what is to be assessed
- provide meaningful feedback to all participants (Hattie, 2005, p. 10).

It is worth noting that Rowe (2004) argued strongly that all participants should include systems as well as teachers and students.

To sum up, evidence from recent research indicates that large-scale assessment programs can result in improved student outcomes if they share the same qualities as good classroom assessment tasks. These qualities include a close relationship between what is taught and how it is taught, high quality items that allow the achievement of all students to be accurately determined against standards, and adequate and timely feedback to students and schools that supports their teaching and learning strategies. The findings from the survey described in Chapter 5 support these conclusions.

Bruniges’ questions and Hattie et al.’s principles will be used in this review to frame both the evaluation of current practice and the development of options for the future.

4.5 Are current state-wide tests good tests?

From documents and meetings with staff in state educational agencies it is clear that all jurisdictions share the same strong view that their numeracy and literacy tests satisfy the conditions for a good test. They assert that their tests are based on a local curriculum or learning statements, teachers are involved in test development, administration and marking. Student achievement is reported against standards and, through linking items, student progress can be monitored on a common scale. Schools receive detailed and timely feedback by various means.
It can be argued that because the school curriculum in New South Wales is operationally defined by a set of syllabus documents which contain specific outcomes, the link between curriculum and tests is closer than in some other states. Consequently the New South Wales test specifications reflect more closely what is taught in schools and the standards the students are expected to reach, with test items linked to specific syllabus outcomes. Items vary in difficulty so that the achievement levels of almost all students can be accurately determined on a common scale. Because of the large range of ability and the need to make the test accessible to all students there is, however, some difficulty in having enough difficult items to accurately place high performing students. This will be a major problem for the proposed national tests.

NSW, Queensland, Victoria and Western Australia all provide information to schools on disk, on-line or through a data warehouse. The amount of information varies and NSW appears to be regarded as “best practice” because of the range of analyses that can be performed by schools, the close links with syllabus outcomes and the provision of links to specific teaching strategies developed by the DET Curriculum Support Directorate. Future embellishments to the NSW process are likely to include on-line access to data which is currently supplied on disk and support material.

4.6 Summary

The conclusion to be drawn from a review of existing research, a brief summary of which has been presented in this chapter, is that state-wide assessment programs can be used to inform teaching and learning strategies in schools provided certain conditions are met. These conditions, in brief, are that:

- assessment frameworks are based on a well-defined learning and achievement continuum and the tests are related to what is taught in schools, what students learn, how they learn and the standards that they are expected to demonstrate
- test items allow the achievement levels of all students to be accurately determined on a common scale against standards
- parents and schools receive timely and appropriate reports that will identify students at risk and curriculum areas for improvement, and support material which can be used to improve teaching and learning

All jurisdictions argue that their current testing programs satisfy these requirements. Chapter 5 will examine the validity of this assertion for the New South Wales testing program.
Chapter 5: NSW STATE-WIDE TESTS OF NUMERACY AND LITERACY: STAKEHOLDERS’ PERCEPTIONS

5.1 Introduction

All jurisdictions argued that their state-wide numeracy and literacy tests can be used to improve student outcomes because of the nature of the tests, the information provided to schools and the ways their schools use the data. This chapter examines that claim for New South Wales by researching how parents and schools use the results from the state-wide tests.

Two studies were conducted to address this question. The first was a state-wide survey of primary and secondary school principals, teachers and parents late in 2005 using a questionnaire methodology. The second study involved the interviewing of principals and teachers in a small sample of schools in the first part of 2006.

5.2 Background

When first introduced in New South Wales the state-wide tests of literacy and numeracy tests were controversial, with concerns being raised over the use to which the results from these tests would be put. Consequently, legislation was introduced that prohibited data being used to publicly compare schools and prevented BST results being transmitted from primary to secondary schools. The tests were seen as separate from the regular assessment program in schools, providing information on how individual students and schools compared to all students and schools in the state (state norms) and providing diagnostic information about student performance.

A small study conducted during the year the BST was introduced (Outhred, Bochner & Cooney, 1989) showed a marked change in attitude during that year. Pre-test anxiety about how BST results would be used was replaced by post-test views that the tests did not add to what the schools already knew about their students and that the results came too late for the tests to be diagnostic. School principals did respect the privacy of their school’s results but found the initial school reports too complicated to be of use for school improvement.

What has changed since that first year has been the reporting to parents and to schools, and many would argue that both student and school reports have become more user-friendly through the use of graphical material and an increased awareness by the DET of what schools regarded as important. Introduction of school data on disk and the provision of the SMART analysis package has allowed principals to interrogate their own school data in different
ways, by focussing on individual students or groups of students, on curriculum strands and assessing changes in performance over time. These developments, which are similar to initiatives in other states, have made the student and school data more accessible and have encouraged schools to make more use of the data for school planning.

5.3 State-wide survey

5.3.1 Sample

The survey of NSW schools commenced in mid November 2005. Questionnaires were mailed to samples of primary and secondary schools from the government, Catholic and independent school sectors. A systematic random sampling procedure was used to select the target sample (Table 5.1) comprising:

- a 20% sample of primary schools
- a 50% sample of secondary schools

<table>
<thead>
<tr>
<th>School type</th>
<th>Public</th>
<th>Catholic</th>
<th>Other independent</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>Primary</td>
<td>480</td>
<td>60</td>
<td>40</td>
<td>580</td>
</tr>
<tr>
<td>Secondary</td>
<td>250</td>
<td>60</td>
<td>40</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>730</td>
<td>120</td>
<td>80</td>
<td>930</td>
</tr>
</tbody>
</table>

Support for the administration of the survey was given by the NSW DET, the Catholic Education Commission, the NSW Teachers Federation, the Federation of Parents and Citizens Associations, Secondary Principals Council and the Primary Principals Association. As part of the development phase of the questionnaire, a number of principals were interviewed to identify their perceptions of the issues surrounding state-wide tests of literacy and numeracy. Ethics approval was granted by the Ethics Review Committee (Human Subjects) of Macquarie University.

In each school the principal was asked to complete a written questionnaire and to distribute questionnaires to a random sample of up to:

- eight teachers involved with the state-wide numeracy and literacy tests
- ten parents (Primary: five from each of Year 3 and Year 5, Secondary: five from each of Year 7 and Year 8)
The actual primary sample comprised 113 schools, a response rate of 19.1%, with responses from 90 principals, 338 teachers and 397 parents (208 Year 3 and 189 Year 5). The secondary sample comprised 80 schools, a response rate of 22.9%, with responses from 60 principals, 344 teachers and 278 parents. While the response rate was lower than anticipated, the schools were spread across location with 66.5% urban secondary schools and 53.5% urban primary schools, and varied in size. The demographics are detailed in the Appendix (A2).

5.3.2 Instrumentation

Principal and teacher questionnaires

The questionnaires to principals and teachers were very similar. The first section asked for some demographic information about their school, its location and size, and about the respondent’s personal teaching experience. The next three sections asked them to respond to a number of statements about how useful the test data were in providing different types of information about individual students, groups of students and the school. A Likert scale was used: not at all useful = 1, not very useful = 2, useful = 3, very useful = 4.

The statements in the first section asked about two features:

(a) comparisons
   - how an individual student compares with other students in the state
   - whether an individual student is performing at the appropriate standard
   - how much an individual student has improved since the previous literacy and numeracy tests

(b) diagnosis
   - the areas in which an individual student does well
   - the areas in which an individual student does not do well
   - the areas in which you can help an individual student to improve

The statements used in the second section had a similar focus but were directed at student groups rather than individual students. Statements in the third section focused on teaching and learning strategies at a class/school level:

(a) improving the performance of your students
(b) identifying
   - general curriculum areas that could be addressed
   - specific curriculum areas that could be addressed
   - general teaching areas that could be modified
   - specific teaching strategies that could be modified
• assessment strategies that could be modified
• specific groups of students who need additional support

After completing the first two sections regarding the usefulness of information in identifying student and school characteristics, the respondents were asked to rank the information they received in terms of its importance.

The remaining sections asked about student/school reports and the use principals/teachers made of the data and the use of the SMART software. The final section allowed respondents to make an overall comment about the tests themselves and the extent to which they changed their teaching and learning strategies as a result of the student or school reports.

Parent questionnaires
The first section of the parent questionnaire asked them to respond to a number of statements about how useful the test data were in providing different types of information about their child. A Likert scale was used: not at all useful = 1, not very useful = 2, useful = 3, very useful = 4. The statements asked about two features:
(a) comparisons
• how your child compares with other students in the state
• whether your child is performing at the appropriate standard
(b) diagnosis
• the areas in which your child does well
• the areas in which your child does not do well
• the areas in which you can help your child to improve

The remaining sections asked parents what they did with the information they received about their child's performance in the tests. Space was available for them to make additional comments about the tests and the information they received.

The full set of questionnaires is included in the Appendix (A3).

5.3.3 Analysis

Preliminary analyses, using MANOVA, were carried out for each of the primary and secondary schools to determine whether:
• there were significant differences between principals and teachers on the common questions
• there were significant differences in parental responses depending on the child’s grade
• responses differed according to school location and school size.

There were no significant location, school size or grade differences so data have been aggregated across these factors. Because of the large number of statistical tests, $\alpha = 0.01$ was taken as the appropriate significance level for subsequent statistical tests reported in this report.

The results are organised around five broad questions:

• are the data from the literacy and numeracy tests useful in providing information about the performance of individual students?
• are the data from these tests useful in providing information about the performance of groups of students?
• are the data useful for providing information about the performance of a school?
• which of the information provided is most/least important?
• how are the data actually used?

The perceptions of principals, teachers and parents (where relevant) will be presented and compared for primary and secondary schools separately.

5.4 Interviews

The broad survey was followed by a series of interviews with principals and teachers in a number of primary and high schools in 2006 to examine in depth issues raised in the statewide survey and to examine the effect of transition on numeracy outcomes in New South Wales. The schools were chosen to obtain a mix of socio-economic/non-English speaking background (NESB) combinations, and urban and rural schools. A list of schools contacted is provided in the Appendix (A4). The following questions were included in the interviews:

• What are the major assessment issues facing your school?
  o How do you see the relationship between your school’s assessment policy and your teaching and learning strategies?
  o How do external tests/examinations affect your teaching and assessment strategies?
  o What do you regard as “best practice” in assessment?
  o What are the professional development needs of staff in relation to assessment?
What do you see as the future for current state-wide tests and examinations?
• There is a concern about the levels of numeracy at the end of Stage 3 and beginning of Stage 4; that there is a drop in achievement. Is this consistent with your observations?
  If there is a drop in achievement:
    • Is it at the end of primary or the beginning of secondary?
  If there is a drop, there are a number of possible causes:
    • Is it caused by the transition from primary to secondary?
    • Is it a curriculum/syllabus problem?
    • Is it a result of different teaching styles?
    • Is it related to the SNAP test?
    • Are there other possibilities?
    • What can be done to improve numeracy outcomes?

The responses to the first set of questions are incorporated in this chapter and Chapter 8, and the responses to the second set are included in Chapter 6.

5.5 Perceptions from primary schools regarding the BST

5.5.1 Information about individual students

The following tables summarise the perceptions of principals and teachers in relation to individual students. Overall, they found the BST data (Table 5.4) useful in providing information about students, especially the strengths and weaknesses in performance and the areas in which students can be helped. Teachers and principals differed significantly only on two items, with teachers less sure than principals that the test data was useful to identify growth in an individual student and the areas in which they could help an individual student improve (Table 5.2). This difference may be a consequence of the data available to principals and classroom teachers.

When asked to rank the information which is most important both principals and teachers ranked the item, the area in which you can help an individual student to improve, as most important. The least important item was an individual student compares with other students in the state; very few principals or teachers ranked this item first or second.
Table 5.2 Perceptions of primary principals and teachers of the usefulness of Basic Skills Tests for providing information about individual students

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals N= 90</th>
<th>Teachers N=338</th>
<th>p¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>How useful is the information you receive from the BST in showing you:</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which an <em>individual student</em> does well</td>
<td>96.6</td>
<td>91.4</td>
<td>0.236 n.s.</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.28</td>
<td>3.20</td>
<td></td>
</tr>
<tr>
<td>The areas in which an <em>individual student</em> does not do well</td>
<td>98.9</td>
<td>91.4</td>
<td>0.059 n.s.</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.44</td>
<td>3.30</td>
<td></td>
</tr>
<tr>
<td>How an <em>individual student</em> compares with other students in the state</td>
<td>77.8</td>
<td>79.6</td>
<td>0.349 n.s.</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.07</td>
<td>2.99</td>
<td></td>
</tr>
<tr>
<td>Whether an <em>individual student</em> is performing at the appropriate standard</td>
<td>85.6</td>
<td>83.1</td>
<td>0.435 n.s.</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.12</td>
<td>3.07</td>
<td></td>
</tr>
<tr>
<td>How much an <em>individual student</em> has improved since the previous BST</td>
<td>95.6</td>
<td>85.2</td>
<td>0.000 sig</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.51</td>
<td>3.11</td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help an <em>individual student</em> to improve</td>
<td>93.4</td>
<td>87.0</td>
<td>0.005 sig</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>3.48</td>
<td>3.23</td>
<td></td>
</tr>
</tbody>
</table>

Note: ¹ The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

Almost all principals (95.5%) and teachers (92.4%) regarded the student reports as either *easy* or very easy to understand, but were less confident about the ability of parents to understand the reports (principals: 61.8%, teachers: 54.7%). However, the majority (87.4%) of parents responded that they did, in fact, find the reports were *easy* or very easy to understand. Typical comments from parents were that the reports:

- were very user friendly, easy to read and comprehend
- are very useful and a great knowledge for parents to discuss issues with your child!
- have been very specific in describing areas of strength, and how many questions answered correctly

Several parents stated that *it would have been useful to have a copy of the test to work through areas that need improvement*. There is, however, the possibility of some response bias in that
parents randomly selected by principals were possibly judged as most likely to respond and that those who responded are most likely to be literate and numerate themselves to allow them to understand the reports.

Parents were likewise very positive about the usefulness of the BST results (Table 5.3) in both identifying strengths and weaknesses their child’s achievement as well as knowing how their child compared against other students in the state and against standards.

Table 5.3 Parents’ perceptions of the usefulness of the Basic Skills Tests for providing information about their child (N= 397)

<table>
<thead>
<tr>
<th>Item</th>
<th>Very useful/useful %</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How useful is the information you receive from the BST in showing you:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which your child does well</td>
<td>94.9</td>
<td>3.49 (0.62)</td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>89.0</td>
<td>3.40 (0.75)</td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>89.3</td>
<td>3.32 (0.72)</td>
</tr>
<tr>
<td>Whether your child is performing at a standard appropriate for their year</td>
<td>93.4</td>
<td>3.52 (0.66)</td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>87.1</td>
<td>3.31 (0.86)</td>
</tr>
</tbody>
</table>

Did the BST provide information about individual students that could not be obtained another way?

Approximately 70% of respondents stated that the BST provided useful information about individual students that they could not get in another way: how a student compares against state standards, their strengths and weakness. Objectivity of assessment and reporting was also mentioned. Some typical comments on the benefits are presented below:

Principal:

State-wide standardised test allow school/parent to see how a student is going in comparison to other students state-wide.

The ability to analyse data is comprehensive and impartial. Good objective and reflective evaluation which complements school assessment and data analysis to provide a well balanced assessment of student learning.
Good examples of actual questions the children got wrong. Questions are in problem-solving or in texts

Teachers

It's objective, gives a strong indication of the standard required. Provides a variety of presentations (format/layout) which gives ideas for own assessment. It covers everything

Education can be subjective, so it affords me an unbiased assessment of where my class children are on a state level. Sometimes, being in one school with specific needs can limit expectations (even though we use K-6 document and indicators)

They provide a very clear picture of a child's specific strengths and weaknesses

Some areas are more specific than class information. I like analysing

yr 3/yr 5. There are often trends that we are omitting at a school level.

Parents

Because you're never sure how each school compares with others if your child is struggling. Is it because others in his class are just bright or does he need help?

It tells parents many aspects such as in literacy grammar, sentences structure, reading, and understanding of texts and if your child does better in factual or stories/poem. School reporting is not as specific, honesty of teachers re child's ability lacking particularly when child is struggling

5.5.2 Information about groups of students

Principals and teachers again stated that they found the BST data useful in providing information about groups of students (Table 5.4), with principals’ ratings being higher than teachers’ ratings. However, only one difference, for the item how much your students have improved since the previous numeracy and literacy tests, was statistically significant, with teachers less sure that the tests data was useful in showing how much their students had improved. Again, this difference may be a consequence of the different amount of information available to principals and teachers.

Both principals and teachers ranked the item, the areas in which you can help your students to improve, as the most important aspect and knowing how your students compare with other students in the state the least important aspect. Principals and teachers found the school reports easy or very easy to understand.
Table 5.4  Perceptions of primary principals and teachers of the usefulness of the Basic Skills Tests providing information about **groups of students**

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals N=90</th>
<th>Teachers N=338</th>
<th>p¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How useful is the information you receive from the BST in showing you:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which your students do well</td>
<td>92.9 (3.34)</td>
<td>92.9 (3.22)</td>
<td>0.114 n.s.</td>
</tr>
<tr>
<td>The areas in which your students do not do well</td>
<td>98.9 (3.49)</td>
<td>91.7 (3.32)</td>
<td>0.033 n.s.</td>
</tr>
<tr>
<td>How your students compare with other students in the state</td>
<td>77.8 (3.21)</td>
<td>83.6 (3.05)</td>
<td>0.072 n.s.</td>
</tr>
<tr>
<td>Whether your students are performing at the appropriate standard</td>
<td>85.6 (3.22)</td>
<td>87.4 (3.13)</td>
<td>0.262 n.s.</td>
</tr>
<tr>
<td>How much your students have improved since the previous numeracy &amp; literacy tests</td>
<td>95.6 (3.45)</td>
<td>82.5 (3.14)</td>
<td>0.001 sig</td>
</tr>
<tr>
<td>The areas in which you can help your students to improve</td>
<td>93.4 (3.52)</td>
<td>90.1 (3.30)</td>
<td>0.015 n.s.</td>
</tr>
</tbody>
</table>

Note: ¹ The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

**Did the BST provide information about groups of students that could not be obtained another way?**

The majority of principals and teachers also said that the BST provided information about groups of students that they would not get another way. The main theme to emerge, apart from knowing how groups of students performed against other students in the state, was the ability to interrogate the test data to examine the performance of specific groups of students.

**Principals**

*Again, more specific and detailed data - I can manipulate the data using the software to look at cohorts etc.*

*Easy to find how a small group/class have performed in particular*
questions/areas

Teachers

Provides an overview of school’s strengths and weaknesses to assist in school management and planning

Help identify areas of G & T or LD that may have been overlooked and as a member of the QTP committee, the writing test gives us lots of important information/feedback about writing

Overall performance showing areas in the school may need to focus on if a good percentage of children are answering the same questions incorrectly

5.5.3 Information about schools

There were no significant differences between the responses of principals and teachers about how useful BST data were in providing information about their school (Table 5.5). However, in contrast to the previous data, there was less uniformity in responses across items, with percentages in the useful/very useful categories varying from 54% to 88%. Teachers and principals were less confident that BST data were useful for identifying teaching strategies than for identifying areas for improvement at student and curriculum levels. The item ranked most important by both principals and teachers concerned identifying specific groups of students who need additional support in numeracy and literacy.
Table 5.7  Perceptions of primary principals and teachers of the usefulness of the Basic Skills Tests for proving information about their school

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals N=90</th>
<th>Teachers N=338</th>
<th>p^1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How useful is the information you receive from the BST in:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving the performance of your students</td>
<td>83.2 (0.62)</td>
<td>79.6 (0.69)</td>
<td>0.372 n.s.</td>
</tr>
<tr>
<td>Identifying general curriculum areas that could be addressed</td>
<td>76.6 (0.79)</td>
<td>88.4 (0.70)</td>
<td>0.105 n.s.</td>
</tr>
<tr>
<td>Identifying specific curriculum areas that could be addressed</td>
<td>84.4 (0.75)</td>
<td>87.8 (0.70)</td>
<td>0.332 n.s.</td>
</tr>
<tr>
<td>Identifying general teaching strategies that could be modified</td>
<td>57.7 (0.74)</td>
<td>68.2 (0.78)</td>
<td>0.609 n.s.</td>
</tr>
<tr>
<td>Identifying specific teaching strategies that could be modified</td>
<td>63.3 (0.76)</td>
<td>68.2 (0.81)</td>
<td>0.758 n.s.</td>
</tr>
<tr>
<td>Identifying general assessment strategies that could be modified</td>
<td>54.4 (0.77)</td>
<td>63.7 (0.77)</td>
<td>0.709 n.s.</td>
</tr>
<tr>
<td>Identifying specific groups of students who need additional support in numeracy &amp; literacy</td>
<td>85.6 (0.79)</td>
<td>85.7 (0.77)</td>
<td>0.037 n.s.</td>
</tr>
</tbody>
</table>

Note: ^ The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

From the data presented above we can conclude that principals, teachers and parents perceive that BST data are useful for providing information about their students and their schools, and that the most important information concerns areas for improvement at individual student, school and curriculum levels. The next question to address is how parents and schools actually used the data.
5.5.4 What do schools and parents do with the data?

Parents
The action of parents is clearly child directed: almost all discuss the test report with their child, looking at weaknesses that have been identified and then looking to see how they can help their children (Table 5.6). Fewer (57.4%) discuss the areas of weakness with their child’s teachers.

Table 5.6 What parents do with student reports

<table>
<thead>
<tr>
<th>Parent’s action</th>
<th>Yes %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>93.9</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>82.5</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>57.4</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>94.1</td>
</tr>
</tbody>
</table>

The additional parental comments on the tests focused mainly on the student reports and repeated what has been said above. Parents appreciated the specificity of the reports and the information on how their child performed against state norms and standards. Their comments were evenly divided between references to state norms or standards: only a small number of the 285 parents who responded to this question mentioned how their child’s school seemed to be performing.

The majority (85%) of parents agreed that the student reports assisted them to help their child with their school work because they enabled parents to identify strengths and weaknesses; *they will enable us to focus on the areas of weakness and not to focus as much on the stronger areas.*

Some parents saw the student reports as complementing information they already received from the school:

- *[the BST] help to confirm strengths/weakness in child’s progress*
- *it’s an extension of the information you receive from your child’s teachers*

Parents nominated a range of strategies they would employ following receipt of the student reports, some that were home-based and other school-based:
shows weaknesses that can then be strengthened with extra work at home
important to know weaknesses so that I can assist more in these areas and seek
further help before a problem emerges
they provide indicators I can use to confer with their teacher to come up with
additional strategies to help them

What these comments show clearly is that although a bare majority (54%) said that they
would discuss their child’s report with the teacher, the overwhelming majority saw the
information provided in the reports as data they could use to improve their child’s
achievement in numeracy and literacy. It appeared that most of them were using the
comparison information, against state norms or against standards, as an indication of whether
or not their child was achieving at an appropriate level.

**Principals and teachers**
Schools receive an extensive school report and the results of their students on a disk which
they can analyse by the SMART software package. Principals and teachers were asked how
useful they found both information sources and the extent to which they used this information
to modify their teaching and learning strategies.

**What was discussed**
Almost all principals stated that they discussed the school reports with all staff and the
majority (68%) said they discussed the reports with parents, although it was not clear whether
they were referring to individual parents or to parent organisations. Their open-ended
comments suggested the latter.

Principals indicated that different information was shared with different groups:

*as part of the executive, we discuss all areas. As teachers we look for areas that can assist us*
*individual students with Exec/staff. Areas for development with staff. Overall aspect with P&C*
*information to parents who ask for it. All staff look at analysis, done by a couple of teachers, for areas of weakness and strength*

A bare majority of teachers (55%) said that they discussed the reports with parents and a
smaller proportion (24%) discussed them with students. Only a minority of principals and
teachers stated that they discussed how individual students or their school compared against
state norms. The majority of their comments concerned identification of specific strengths and
weaknesses, trend data, value-added information and growth over time, which reinforced their earlier ratings:

- **whether our results (from other sources) are confirmed**
- **trends and patterns – strengths and weaknesses**
- **areas of academic or curriculum concern**
- **we pinpoint areas of weakness – then plan how we can address them**

*What was valued in the school reports*

What principals valued, in addition to information about the differential performance of groups of students, was data on overall school performance and what could be gleaned from the data using the software package. This is not surprising, and is consistent with their earlier ratings and open-ended comments. Some specific areas were:

- **value-added information from Yr 3 to Yr 5**
- **school trend data**
- **comparison to state/historical data**
- **breakdown of results**
- **item analysis**

Teachers’ comments covered several other aspects of the school reports including the use of easy-to-read graphics for overall impression at a quick glance.

*Use of the SMART software*

The majority of principals (83%) used the software to analyse their school’s results. Of those, only 5% found the software *not useful* and 23% found it *not friendly*. Fewer teachers, 54%, had used the software and of these 14% found it *not useful* and 22% found it *not friendly*.

Approximately 30% of the principals provided open-ended comments about the software which were evenly divided between difficulties – *more training would be desirable, difficult to download, bring back the CD – and praise – love it, easy to use, comprehensive and allows variations in analyses*. Approximately the same percentage of teachers provided comments. Some were negative – *our computer could not run with your download, too much info!, the software is difficult to load and access* – others were positive – *user friendly, great for visual learners* – and some reported that the analyses were performed by members of the executive – *I think a non-teaching executive uses it to prepare graphs.*

Few principals or teachers said that they used the package to compare their school with other schools or with state norms. They focussed on aspects identified in previous sections: the analysis of growth over time, the differential performance of groups of students and
identification of strengths and weaknesses. Information which they obtained from the school data using the analysis package included:

- grouping of students with common weakness areas
- curriculum weaknesses, underachieving students (top and bottom)
- comparison of results between Yr3/Yr5; comparison of past years – trends within school
- boys V girls, indigenous V others

**What has changed as a result of having the BST data?**

The majority of teachers (76%) and principals (86%) responded to this question, identifying changes that had occurred with respect to curriculum emphasis and teaching and learning strategies as a result of having BST data. Despite their earlier view that they found the BST data less useful for identifying teaching strategies that could be addressed, their open-ended responses to this question indicated that schools were using the data for whole school planning, and initiating changes to curriculum emphasis and teaching strategies. The responses, especially from the teachers showed a wide range of school based initiatives:

**School planning**

- helps set targets for low achieving students.
- can structure whole school and even cluster professional development.
- whole school strategies are implemented to improve student outcomes.

**Identification of strengths and weakness – general**

- helps set targets for specific instruction in areas needing improvement
- able to target specific skills/areas we need to improve and adjust our presentation of lessons

**Identification of strengths and weaknesses – specific**

- revision of long division, two digit multiplication x two digits, revision to how to plan a story
- more emphasis on spelling and writing
- after poor results in space and measurement we formed graded maths groups that had some success

**Teaching strategies**

- more strategic and explicit teaching results from data analysis – it can then be modified and addressed through school/teaching programs
- more focussed teaching in areas of weakness
- makes teacher more aware of students at risk and offers strategies to assist them
Curriculum emphases

identified specific weaknesses in our programs, e.g. 2 step problems in numeracy – we modified teaching programs to make sure we improved in this area
more emphasis on space strand in maths and instituted a greater variety of writing stimuli
school-wide focus on writing and visual literacy

A final comment

Approximately half the principals and teachers responded to the final question: any final comments you would like to make about the tests (e.g. content, timing, availability of data)?
Many of their comments reflected general approval as demonstrated by the following examples:

we are becoming far more capable at using the data to make a difference
provides an excellent example of the standard and type of activities students should be doing to meet BOS syllabus requirements

However, there were some cautionary comments about an over-emphasis on the BST, timing, the Year 3 tests and the literacy load in numeracy tests.

Role of the BST (5.2%)
it must always be remembered that this is only a very small component of the assessment of a student
I always make parents and students aware that this is one aspect of our assessment – a snapshot on the day. I see students and parents more and more anxious

Timing (6.5%)
would like earlier test to receive results in term 3
why not have it at the end of Yr 2 or March Yr3?

The Year 3 test (5.2%)
Year 3 find the testing onerous. Should be over two days – children exhausted and not performing at their best by the end of testing
use of exposition/discussion test forms in year 3 for writing is too challenging for students – not enough exposure or experience

Literacy load in numeracy tests (3.0%)
the test is highly biased against students with poor literacy skills (including the numeracy section)
the literacy component of the numeracy test precluded many of our ESL & NESB students from revealing their mathematical skills
A very small number of respondents cautioned that teachers were teaching to the test because of the perceived importance of the BST.

5.5.5 Summary of primary perceptions about BST

What is clear from the data presented in this section is that parents and schools were using the BST as a diagnostic tool at student, school and curriculum levels, rather than as an accountability measure. Parents saw BST data as important in providing information about the strengths and weaknesses of their child’s achievements and whether they were performing at the appropriate standard. How their child performed relative to other students in the state was regarded as less important than showing them the areas in which they could help their child improve. Principals and teachers also saw the BST as a valuable source of information for identifying students at risk, areas of their curriculum that need attention and teaching strategies that can be modified. In common with parents, principals and teachers saw performance against standards as more important than performance against other students or schools. Their open-ended comments showed that BST results were used extensively in overall school planning. Data from one test provided direction for the next planning period in curriculum areas by identifying specific weaknesses in their programs, and teaching strategies could be modified to focus on areas of weakness. Like the parents, they recognised that the BST was only part of their overall assessment program so the results from the BST had to be interpreted against the broader context.

The key to what appears to be an increase in the use of BST data by schools and parents lies in the high quality of the student and school reports and the introduction of software that allows schools to analyse their own data. The majority of parents found the student reports easy to understand and appreciated the specificity of the data and the detail provided. School reports were perceived by principals and teachers as easy to understand and the SMART software as useful for allowing them to extract the information they required. Most of this concerned the differential performance of groups of students or the differential performance
across the test items. While there was the potential for all teachers to analyse their school data, the responses indicate that the common pattern was for a member of the executive to analyse the school data and then report to other staff. Lack of time and lack of training were seen as impediments for greater use of the software. As one respondent said, *we are data rich, but we must now learn how to use it.*

There were, however, some concerns raised about aspects of the tests, especially the Year 3 test. The test was seen as too extensive to be completed in one day, and many teachers argued that it should be spread across two days. The submission from EMSAD indicates that a change has been made to the administration of the tests. The literacy load in the numeracy tests was seen by some teachers as an impediment to doing well for poor readers and students for whom English was not their first language. Some other respondents saw an increasing emphasis on the BST and the consequent danger that teachers will *teach to the test* in order to get improved results.

Data collected by interview from the primary schools visited in 2006 supported the conclusions from this survey. Teachers spoke of the way in which they used BST data to improve teaching and learning and emphasised the quality of the reports and other support material they received. Concerns they raised were similar to those raised in the written responses to the questionnaires: the impact of literacy on the numeracy results and the need for professional development on the analysis software package. Some suggested that the software analysis package would be improved by the development of “hot-links” to curriculum support material and teaching strategies. These links are under development by DET.
5.6 Perceptions from Secondary schools regarding ELLA and SNAP

Overall the perceptions from secondary school principals, teachers and parents were similar to those received from their primary counterparts. They saw ELLA and SNAP as useful for providing information about their students and their schools.

5.6.1 Preliminary Analyses

Of the 344 teachers who responded to the survey, English (26%) and Mathematics (28%) teachers formed the two largest groups, followed by Science (11%), with the remaining 35% of respondents distributed across the other Key Learning Areas. Preliminary analyses, using MANOVA, were carried out to determine if the responses to the three groups of items differed according to teaching area; in particular to determine if English and Mathematics teachers differed in their perceptions of the usefulness of the tests in providing information about their students. There were no significant differences so the responses have been aggregated in the following sections.

The responses of Year 7 and Year 8 parents were also compared and no significant differences found so responses from the two groups have been combined in the following sections.

5.6.2 Information about individual students

ELLA and SNAP data (Table 5.7) were seen by principals and teachers as useful in providing information about the achievement of individual students. Principals’ ratings were significantly higher than teachers’ ratings on all items except one with approximately 10% more principals than teachers stating that ELLA and SNAP data were useful in providing information about individual students. When asked to rank the information which is most important both principals and teachers ranked the item, the area in which you can help an individual student to improve, as most important. The least useful aspect was knowing how individual students compared with other students in the state. This ranking was the same as was found for primary teachers and principals.

Almost all principals and teachers (95%) regarded the student reports as either easy or very easy to understand but, consistent with primary staff, were less confident about the ability of parents to understand the reports (53%). However, the majority of parents (85%) said they found the student reports easy or very easy to understand.
Table 5.7 Perceptions of secondary principals and teachers of the usefulness of ELLA and SNAP tests for providing information about individual students

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals N=60</th>
<th>Teachers N=342</th>
<th>( p^1 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>How useful is the information you receive from the ELLA &amp; SNAP tests in showing you:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which an individual student does well</td>
<td>98.3 (0.54)</td>
<td>82.5 (0.72)</td>
<td>0.00 sig</td>
</tr>
<tr>
<td>The areas in which an individual student does not do well</td>
<td>98.4 (0.50)</td>
<td>89.2 (0.73)</td>
<td>0.000 sig</td>
</tr>
<tr>
<td>How an individual student compares with other students in the state</td>
<td>83.1 (0.82)</td>
<td>75.3 (0.79)</td>
<td>0.000 sig</td>
</tr>
<tr>
<td>Whether an individual student is performing at the appropriate standard</td>
<td>85.0 (0.76)</td>
<td>79.5 (0.77)</td>
<td>0.045 n.s.</td>
</tr>
<tr>
<td>How much an individual student has improved since the previous literacy &amp; numeracy tests</td>
<td>90.0 (0.77)</td>
<td>80.0 (0.82)</td>
<td>0.000 sig</td>
</tr>
<tr>
<td>The areas in which you can help an individual student to improve</td>
<td>95.0 (0.59)</td>
<td>84.0 (0.78)</td>
<td>0.000 sig</td>
</tr>
</tbody>
</table>

Note: \(^1\) The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

Parents also regarded the data from SNAP and ELLA (Table 5.8) as useful in identifying strengths and weaknesses of their child, showing how their child compared against other students in the state and whether their child was achieving at an appropriate standard.
Table 5.8  Perceptions of secondary parents of the usefulness of ELLA and SNAP for providing information about their own child (N=278)

<table>
<thead>
<tr>
<th>Item</th>
<th>Very useful/useful</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How useful is the information you receive from the ELLA &amp; SNAP tests in showing you:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which your child does well</td>
<td>94.9</td>
<td>3.29 (0.70)</td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>89.0</td>
<td>3.21 (0.81)</td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>89.3</td>
<td>3.23 (0.80)</td>
</tr>
<tr>
<td>Whether your child is performing at a standard appropriate for their year</td>
<td>93.4</td>
<td>3.32 (0.76)</td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>87.1</td>
<td>3.13 (0.87)</td>
</tr>
</tbody>
</table>

Did ELLA and SNAP provide information about individual students that could not be obtained another way?

Approximately 80% of principals saw the tests as providing information about individual students that they could not get another way, but this perception was shared by only a bare majority of teachers (54%) and parents (50%). The themes to emerge from their open-ended comments concerned the detail provided in the student reports and how students performed against standards. Some typical comments were:

**Principals**

- You don't get the big picture, comparative, analytical and value-added, curriculum specific data anywhere else!
- Provides a gauge of the student’s improvement, whether they are performing as expected, as indicators of how they can improve
- Graphs give a useful breakdown of sections e.g. ELLA writing/reading/language.
- SNAP- numbers, space etc

**Teachers**

- Specific reference to skills of each student
- Most detailed diagnostic tests available
- How students are performing in relation to whole state. Pinpointing of specific deficiencies in areas of language
Parents

It gives a comparison across the state, not just the student’s school
How they are performing over a number of areas
More informative reporting on specific and key areas of the subject.

Of the 278 secondary parents, 82 made additional comments about student reports, with 64% positive comments and 36% negative. The negative comments tended to come from parents who thought that ELLA and SNAP did not provide additional information about their child’s performance and focussed on the precision provided in the report:

They are not very accurate and do not show a detailed or clear outline
The diagrammatic/arrow system is not precise enough; it only provides generalised information
Not clear what area band your child should be in i.e. in year 8 but operating at year 9 etc

Interestingly, the positive comments addressed the same theme:

The reports provide a greater depth of specific areas covered under an overall topic/subject
I think the results are clearly shown, however I wish every child could keep their question booklet to show their parents
Useful and give you a clear idea of where they haven’t performed well

5.6.3 Information about groups of students

Overall, when asked about ELLA and SNAP in relation to groups of students, principals and teachers again agreed that data from the tests were useful in providing them with information about the achievement of groups of students. (Table 5.9). Again, on all items principals’ ratings were significantly higher than teachers’ ratings with approximately 10% more principals that teachers asserting that ELLA and SNAP data were useful in providing information about groups of students. Consistent with previous findings, both principals and teachers ranked the item, the areas in which you can help your students to improve, as the most important aspect.
Table 5.9  Perceptions of secondary principals and teachers of the usefulness of ELLA and SNAP tests for providing information about groups of students

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals N=60</th>
<th>Teachers N=342</th>
<th>p1</th>
</tr>
</thead>
<tbody>
<tr>
<td>How useful is the information you receive from the ELLA &amp; SNAP tests in showing you:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which your students do well</td>
<td>96.7 (0.57)</td>
<td>87.3 (0.66)</td>
<td>0.000 sig.</td>
</tr>
<tr>
<td>The areas in which your students do not do well</td>
<td>100.0 (0.44)</td>
<td>91.6 (0.67)</td>
<td>0.000 sig.</td>
</tr>
<tr>
<td>How your students compare with other students in the state</td>
<td>90.0 (0.72)</td>
<td>78.7 (0.76)</td>
<td>0.000 sig.</td>
</tr>
<tr>
<td>Whether your students are performing at the appropriate standard</td>
<td>91.6 (0.70)</td>
<td>84.0 (0.70)</td>
<td>0.000 sig.</td>
</tr>
<tr>
<td>How much your students have improved since the previous numeracy &amp; literacy tests</td>
<td>93.3 (0.72)</td>
<td>88.9 (0.78)</td>
<td>0.000 sig.</td>
</tr>
<tr>
<td>The areas in which you can help your students to improve</td>
<td>95.0 (0.57)</td>
<td>87.3 (0.73)</td>
<td>0.000 sig.</td>
</tr>
</tbody>
</table>

Note: 1 The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

Did ELLA and SNAP provide information about groups of students that could not be obtained another way?

In their open-ended comments proportionally more principals (80%) than teachers (50%) said that the tests provided them with information they did not get another way. Few principals mentioned state comparisons and most focussed on standards and identifying areas for improvement. Teachers, in contrast, divided their comments almost evenly between state comparisons and identifying strengths and weaknesses of groups of students. Some typical comments were:

Principals

The results showing achievement of the whole form can be seen with ELLA/SNAP
Particularly good for longitudinal studies of students
Good for planning at high school. Good for communicating to primary schools

Teachers

Comparisons to state. Being able to create groups and compare. Being able to target specific areas in the strands
Comparative data between years, schools, groups, state

5.6.4 Information about schools

As with responses from primary staff, views of secondary staff about the usefulness of the test data to provide information about their school were more variable than their perceptions about the usefulness of test data for identifying information about students. The tests were seen as more useful for identifying areas for improvement at student and curriculum levels, and less useful for identifying teaching strategies. There were fewer differences in principal and teacher perceptions. Although there only two items for which the principal and teacher ratings differed significantly (Table 5.10), for one item the difference was over 20%. Almost all (97%) of principals found the test data useful/very useful in improving the performance of their students compared to 75% of the teachers.

Overall, although there were more principal/teacher differences in the secondary responses than in the primary responses the pattern was the same. All stated that the test data were useful in showing them students at risk and areas of curriculum for improvement, and all said that the most important aspect concerned identifying students at risk.
Table 5.10  Perceptions of secondary principals and teachers of the usefulness of ELLA and SNAP tests for providing information about their school.

<table>
<thead>
<tr>
<th>Item</th>
<th>Principals</th>
<th></th>
<th>Teachers</th>
<th></th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very</td>
<td>Mean (SD)</td>
<td>Very</td>
<td>Mean (SD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>useful/useful %</td>
<td></td>
<td>useful/useful %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving the <strong>performance</strong> of your students</td>
<td>96.7</td>
<td>3.38 (0.56)</td>
<td>75.6</td>
<td>2.93 (0.73)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>sig</strong></td>
</tr>
<tr>
<td>Identifying <strong>general curriculum areas</strong> that could be</td>
<td>83.4</td>
<td>3.13 (0.72)</td>
<td>76.1</td>
<td>2.95 (0.73)</td>
<td>0.123</td>
</tr>
<tr>
<td>addressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>n.s.</strong></td>
</tr>
<tr>
<td>Identifying <strong>specific curriculum areas</strong> that could be</td>
<td>78.3</td>
<td>3.17 (0.81)</td>
<td>72.6</td>
<td>2.95 (0.78)</td>
<td>0.106</td>
</tr>
<tr>
<td>addressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>n.s.</strong></td>
</tr>
<tr>
<td>Identifying <strong>general teaching strategies</strong> that could be</td>
<td>71.7</td>
<td>2.88 (0.83)</td>
<td>60.0</td>
<td>2.69 (0.79)</td>
<td>0.342</td>
</tr>
<tr>
<td>modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>n.s.</strong></td>
</tr>
<tr>
<td>Identifying <strong>specific teaching strategies</strong> that could</td>
<td>65.0</td>
<td>2.95 (0.93)</td>
<td>57.0</td>
<td>2.67 (0.83)</td>
<td>0.126</td>
</tr>
<tr>
<td>be modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>n.s.</strong></td>
</tr>
<tr>
<td>Identifying <strong>general assessment strategies</strong> that could</td>
<td>62.7</td>
<td>2.77 (0.77)</td>
<td>57.8</td>
<td>2.64 (0.79)</td>
<td>0.610</td>
</tr>
<tr>
<td>be modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <strong>specific groups of students</strong> who need</td>
<td>96.7</td>
<td>3.72 (0.52)</td>
<td>88.8</td>
<td>3.35 (0.60)</td>
<td>0.000</td>
</tr>
<tr>
<td>additional support in numeracy &amp; literacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>sig</strong></td>
</tr>
</tbody>
</table>

Note: ‘The p-values have been derived from univariate ANOVAs following a MANOVA on the six measures.

In terms of **importance** both principals and teachers perceived that the most important information was identifying specific groups of students who need additional support in numeracy and literacy.

The next section discusses what schools and parents did with the reports they received.
5.6.5 What do schools and parents do with the data?

Parents

Almost all (93%) parents discussed the report with their child (Table 5.11) and the majority (89%) looked to see how they could help their child. Only a minority (42%) discussed areas of weakness with their child’s teachers.

Table 5.11 What secondary parents do with student reports

<table>
<thead>
<tr>
<th>Parent’s action</th>
<th>Yes %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>92.5</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>85.9</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>41.7</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>89.4</td>
</tr>
</tbody>
</table>

Despite over 80% of the parents saying that the test reports were useful in identifying the strengths and weaknesses of their child, their comments in response to the question about the extent to which these reports you receive help you to assist your child with their schools work were mixed. Positive comments, which were in the majority (60%), focussed on their response to knowing the strengths and weaknesses of their child:

*We do look at it to get an indication of weaknesses and see [if we can] offer assistance*

*Yes, because weaknesses are identified and can be acted upon both at home and school*

Two themes emerged from the negative comments. Some parents stated that the student reports did not offer the detail they needed to help their child and others saw the school as having the major responsibility in improving the performance of their child. Some typical comments were:

*No, the reports need to specify whether the child needs additional support or whether the child be extended*

*They are bland. They seem designed to offend no-one and of little meaningful benefit*

*No – these reports should be used by schools. Parents have enough to do – schools should be more accountable*
Not really. Teachers need to give feedback to parents via students to build up skills
In contrast to the primary parents, the secondary parents did not suggest specific strategies concerning the way information from the test reports could be used to assist their child.

**Principals and teachers**

Principals and teachers were asked how useful they found the information sources and the extent to which they used this information to modify their teaching and learning strategies.

Almost all principals said they discussed the reports with their executive and staff. Only a minority (20%) of teachers said that they discussed the reports with students and 31% stated that they discussed them with parents. Principals indicated that different information was shared with different groups:

- *At meetings of Executive and subject coordinators - discuss general results, trends, identify students who need help or challenge*
- *Teachers – look at directions/strategies for helping weaker students*
- *Parents – explain how to read the report and how to support students, general trends*

**What was discussed**

Two related themes emerged from the principals’ and teachers’ comments, identifying areas for improvement at student and curriculum levels, which were consistent with their earlier comments. Some typical comments were:

- *With the staff, individual and group performances*
- *The focus of discussion is mainly on areas of weakness in literacy and numeracy which need remediation*
- *Areas for improvement and how to improve curriculum and teaching strategies*

**What was valued in the school reports?**

In their open-ended comments principals mentioned the differential performance of groups of students and the achievement levels of individual students, but there was an emphasis on overall school results and what could be gleaned from the data using the software package:

- *Breakdown of results, areas for improvement*

Teachers focussed on aspects that allowed them to identify students at risk and areas in which students needed development.
Use of the SMART software

The majority of principals, 82%, used the software to analyse their school’s results. Of those, only 2% found the software not useful and 22% found it not friendly. Fewer teachers (52%) had used the software and of these 19% found it not useful and 30% found it not friendly. Approximately 30% of the principals commented about the software: they were evenly divided between difficulties – need to provide more professional training to staff, still learning to use the software – and praise – it’s brilliant stuff when you learn your way around it. Downloading, sharing the data across the school network and difficulty with codes were also mentioned as difficulties experienced.

Few principals or teachers said that they used the package to compare their school with other schools or with state norms. Their focus was on the analysis of growth over time, the differential performance of groups of students and identification of strengths and weaknesses.

Analyses carried out included:

- item analysis
- individual student and group responses, group stats
- class groups – but by the time we get the results it is almost too late
- comparison of results from year 7 to year 8, value-added.

What has changed as a result of having data from ELLA and SNAP?

The majority of teachers (70%) and principals (93%) responded to this question, identifying a broad range of initiatives that they had implemented as a result of having data on student performance on ELLA and SNAP available to them. The themes that emerged from their open-ended comments included school planning, intervention programs for students at risk and improvement strategies at curriculum and student level. Some typical comments are given below.

Whole school plans

- Whole school strategies and planning centred on explicit classroom teaching
- Data from these tests (and other sources) are used in determining targets and strategies used in this school

Identification of strengths and weaknesses – specific

- Mainly used for student diagnostic purposes – target those who need support and those who need challenge
- Intensive remediation program

Curriculum

- School literacy plan – teaching strategies. Ongoing professional learning
- Focussed more on writing in English and other KLAs
Teaching strategies

ELLA and SNAP are both used by staff to develop strategies for use in the classroom
Realisation that it is necessary for each teacher to teach specific strategies in literacy and numeracy
More towards further integrating quality teaching strategies, re-establishing literacy groups across school

Looking at the comments as a whole it is evident, however, that schools are focussing more on literacy than numeracy.

A final comment

The majority, 63%, of principals and teachers responded to the last question, any final comments you would like to make about the tests (e.g. content, timing, availability of data)?

Most responses reflected general approval for the tests:

I have nothing but praise except for timing
Great diagnostic tool when used in conjunction with other information
An invaluable tool in determining/raising our level of student outcomes,

There were, however, some words of caution. Timing and the role of ELLA and SNAP were highlighted, as shown in some typical comments:

Role of ELLA and SNAP

One test does not define how a student is progressing
Dangerous to become too ELLA and SNAP-centric. These are only one measure of effectiveness
Danger is that we will teach to these tests rather than addressing quality teaching and learning outcomes

Timing

Would like to get the data earlier
Lateness of publication of SNAP data in 2005 posed difficulties identifying students in need of additional assistance

5.6.6 Summary of secondary responses

Like their primary counterparts, secondary principals and teachers in the sample regarded ELLA and SNAP tests as useful in helping them identify important information for improvement at both student and school levels. Location and size of school did not affect the patterns of responses. Although there were statistically significant differences
between principals and teachers in their ratings, with one exception the differences in the percentages stating that the tests data were *useful/very useful*, were approximately 10%.

Secondary teachers and principals did not, however, see the ELLA and SNAP tests as the only source of information, with many stating that the tests did not provide any additional information about their students’ performance. Any additional information was generally about how their students performed against state norms and standards, and about specific areas of strength and weakness.

Secondary parents were also positive about the tests, agreeing that they provided very useful information as how their child performed against state norms and standards. Only a bare majority, however, saw the tests as providing information that you could not get another way. In their comments they were less positive about the reports than their primary counterparts, although most of the negative comments came from parents who did not see the tests as providing additional information about their child’s progress.

It was evident, from their comments, that although principals and teachers said the school reports were less useful for identifying curriculum areas that needed attention than for identifying students at risk, they saw the test data as an integral part of school planning. Data from school reports were augmented by analyses of school data using the SMART software package. The SMART software was valued because of the flexibility it gave to schools to analyse their data, but its use seemed to be largely restricted to a member of the executive. Professional training of staff in its use and in the interpretation of output from the program was seen to be a priority.

Most discussion about the school reports was within-school and only a minority of principals reported discussing the reports with parents. From the responses it was evident that within-school discussion centred on identifying individual and groups of students at risk, and areas of improvement in curriculum and pedagogy. Only a minority of the secondary parents discussed the results from ELLA and SNAP with their child’s teacher but almost all discussed the results with their child. As a group they used the reports to see how they could help their child but many seemed unsure as how to actually provide help. Some saw the reports as more beneficial for schools rather than parents, and looked to the school to provide the additional help.

Timing issues were raised in relation to the tests. Principals and teachers were strong in their request that they receive results in Term 3 so that intervention programs could be put in place.
for individual students before the end of the school year, and to allow schools adequate time to use the data to assist with whole of school planning for the following year.

Several principals raised the issue of results transfer across the primary/secondary divide. They stated that it would be useful to know the BST results of their incoming Year 7 as this would assist their planning and give them a growth measure. They also thought that, since ELLA and SNAP were based largely on Stage 3 outcomes, the results would inform their feeder schools on the performance of their Year 6 cohorts.

Data from the survey was supported by data gained from interviews across a range of secondary schools. ELLA and SNAP were seen as valuable adjuncts to other school-based assessment for tracking the progress of their students against standards and to guide the development of faculty and whole school policies. Themes identified in the survey responses also emerged during the conversations: the timing of the tests, the quality of the school reports and support material provided by DET and the power given to schools to analyse their data through the software package.

In response to the results of ELLA and SNAP, schools reported adopting a broad range of strategies, from changes in curriculum emphases and teaching strategies to the development of whole-school policies. Although both numeracy and literacy strategies were mentioned it is hard to avoid the conclusion that greater emphasis is placed on literacy than numeracy. Several principals acknowledged that SNAP results were largely ignored by Mathematics departments.

The interview data supported the conclusion that more attention is paid to ELLA results than to SNAP results. In the words of one Mathematics Head Teacher interviewed, we do not take notice of SNAP except for the overall results. They come too late to affect our allocation of classes and by then we know who our weak students are. Reasons advanced for this apparent disparity included the perceived primacy of literacy and that literacy is easier to deal with on a whole school basis across KLAs and the structure of Stage 4 mathematics.

Literacy appeared to be given primacy because of its perceived centrality across all KLAs whereas numeracy is perceived as restricted to a small number of areas. Some Mathematics Head Teachers asserted that the SNAP results were not necessarily valid guides of the mathematical ability of students because of the large literacy component in the SNAP test. They alleged that poor readers are likely to perform badly on the tests, not necessarily because
of their poor numeracy skills, but because they have difficulty in reading the material and knowing what numerical skill to apply.

When asked if the Mathematics program in Year 7 is affected by the background of students entering school that the answer was generally NO. The reason given for this response was that their schools had a large number of feeder schools with students from a wide range of backgrounds and achievement in Mathematics so they commenced at the beginning of the Stage 4 syllabus. Several schools had screening tests in Mathematics for their Year 7 cohorts that affected class allocation but not necessarily the sequencing of material.

5.6.7 Comparison of primary and secondary responses

The patterns of responses had much in common but there were some differences. All groups of respondents saw the tests as useful for providing information about students and schools and all perceived that identifying students at risk and areas of curriculum for improvement were the most important information. There were, however, more significant differences in mean ratings between principals and teachers at secondary level than at primary level, but the differences were not substantial.

For completeness, a series of MANOVAS was carried out to determine if there were significant differences between the responses of the primary and secondary principals, teachers and parents.

Parents of primary students were substantially more positive than parents of secondary students in the usefulness of the respective state tests of literacy and numeracy to identify the strengths and weaknesses of their child but the differences were small.

Principals were significantly more positive than teachers about the usefulness of the numeracy and literacy tests for identifying individual students and groups of students at risk, but no different in the usefulness of the tests for identifying teaching strategies. The only differences between primary and secondary staff related to the two items, improving the performance of your students and identifying specific groups of students who need additional support in numeracy and literacy. Secondary teachers and principals were significantly more positive about the usefulness of the tests but the differences were small.
5.7 Discussion

The findings presented in this chapter were supported by written submissions from organisations associated with members of the project’s Reference Group. Only a small number of submissions expressed opposition to state-wide tests on either measurement or financial grounds. The majority supported the BST, ELLA and SNAP for the information provided to schools and parents. In the words of one submission, the tests are valued:

\[\text{not just as assessment instruments to meet Commonwealth accountabilities, but as specific tools to enhance the learning and teaching of literacy and numeracy in order to improve the learning outcomes for students. There are a number of initiatives at [system], whole school, cohort and individual student level that support this direction.}\]

This submission described in detail how student and school reports were used at system, school and classroom level in ways that were consistent with ways outlined in this chapter. Other submissions highlighted the capacity to tailor teaching and learning strategies to provide opportunities for improving student outcomes and the strong links between the NSW tests and the state curriculum.

Principals, teachers and parents valued the information they receive on individual student performance from the state-wide numeracy and literacy tests because of what they perceive as the diagnostic nature of the information. Their focus is less on the ranking of a student against other students but on how a student is performing against state standards. These tests are not seen, however, as the only sources of information about student performance but are seen as part of the total assessment program of schools. Test data is considered to complement rather than replace other assessment data.

The key to parental and school acceptance is the high quality of the student reports. The vast majority of teachers and parents found the student reports easy to understand and that they provided a level of specificity not found in other reports. The graphical material was perceived to be very helpful. On the other hand, the secondary parents who criticised the student reports directed their criticism at what they perceived as a lack of precision in the graphical representation.

Almost all the parents said they would discuss the reports with their child but only half said they discussed the reports with their child’s teachers, which was consistent with responses from teachers. Primary parents, in particular, looked for ways they could help their child by
additional work at home in specific areas or by other means. In contrast, secondary parents
tended to leave remediation to the teachers. The difference in strategy may reflect the level of
schooling, with parents being more confident that they can help their primary child but less
confident about their secondary child, or the different structures of primary and secondary
schools and corresponding differences in parent-teacher relationships.

The role of the analysis package and other support material provided by EMSAD cannot be
overemphasised. The analysis package gave schools the ability to interrogate their own data
and extract information they needed for overall school planning, changing curriculum
emphases, introducing remediation programs for groups of students at risk and modifying
pedagogy. The survey focussed on the analysis package but interviews with teachers in
schools provided evidence for the value attached to the EMSAD publications, which linked
groups of items to curriculum material and teaching strategies.

The survey data provide some support for the view expressed in one of the written
submissions that primary schools take more account of the numeracy and literacy results for
whole of school planning than secondary schools. This difference may be a result of the other
testing programs at secondary level. What did emerge from the survey data and the
subsequent interviews was an imbalance, more evident in secondary than primary schools,
between numeracy and literacy. Literacy appeared to receive more attention than numeracy,
to the extent that several principals remarked that mathematics teachers do not take any notice
of SNAP. Mathematics teachers tended to assert that the tests provided no additional
information about their students.

It is likely that this difference may result from the perception that literacy is more central to
student learning than numeracy. This argument gains support from an examination of current
Board of Studies syllabus documents and from the increasing correlation between marks in
English and marks in other HSC courses over the past decade. A second reason may be that
teachers find it relatively easy to sustain a literacy across the curriculum program but more
difficult to see numeracy incorporated in other KLAs. Some interviewees suggested that
primary teachers could see where literacy fitted into the teaching of other KLAs, but were less
confident that they could do the same with mathematics/numeracy. In secondary schools the
situation was seen as no better – numeracy was seen as the responsibility of the Mathematics
department.
Finally, timing is obviously an issue. Schools expressed the strong view that it is important to have the test results in term 3 to allow intervention programs to be put into place for students at risk before the end of the year, and to assist planning for the following year.

5.8 Conclusion and implications

This purpose of this chapter is to examine the current testing of numeracy and literacy in New South Wales in order to test the assertion that current state-wide tests are examples of best practice that can help schools improve teaching and learning outcomes within schools. The data presented in this chapter provide support for this assertion and the perceptions of parents, schools and school systems were in broad agreement. As stated in several places in this chapter, the important qualities of the testing program are the relationship to curriculum, the quality of the tests and the quality of feedback to schools.

Feedback to and support for schools is of prime importance. Much has been made in this chapter of the quality of the written reports and the power given to schools to analyse their own data to address local needs using the SMART software. No less important are the printed materials that provide links to curriculum support material and a range of teaching strategies. These resources are perhaps under utilised because of the limited number available to schools. There is a case for making them available online.

From the school responses there is obvious need for professional development of staff to raise their awareness of the resources that are available and how to use this material. The support material includes both printed material and the analysis packages. To use test results in a way that enhances teaching and learning, teachers need to know what information is available, what questions to ask and how to get the information they need.

These conclusions about the value of the state-wide numeracy and literacy tests are not meant to de-value the importance of school-based assessment. Respondents noted that these state-wide tests are only part of a school’s assessment program: they must be seen in the broad assessment framework and in relation to current pedagogy. This aspect will be dealt with in greater detail in a later chapter.

The data presented in this chapter show that the NSW state-wide literacy and numeracy tests satisfy most of Hattie et al’s (2005) requirements for best practice. Relationship to curriculum, feedback to schools through appropriate and timely reporting, and provision of support material were seen to be central to their acceptance and use by parents and schools as
tools to improve teaching and learning. From these findings we can infer that for a large-scale testing program to be widely accepted by the school community it should have features similar to those of the NSW program:

- Coherence between tests and curriculum
- Timely and appropriate reports to schools that allow local needs to be addressed, and teaching and learning strategies tailored to provide opportunities for improving student outcomes
- Timely and appropriate reports to parents that describe how their child is performing against specified standards and that identify areas of strengths and weaknesses
- Adequate provision of support material to schools, which enable them to analyse their test results and to establish links with curriculum and teaching strategies
- The integration of the testing program with school-based assessment programs and current initiatives in pedagogy

Before discussing the implications of these principles for a national assessment framework in Chapter 7, the performance of NSW students on current state-wide tests will be analysed in Chapter 6.
Chapter 6   PERFORMANCE OF NSW STUDENTS IN NUMERACY AND LITERACY

6.1   Introduction

Performance of New South Wales students in numeracy and literacy can be measured in several ways: by the average score on the NSW tests of numeracy and literacy, by the percentage of students who have achieved the national benchmarks and the average scores on international tests including TIMMS and PISA. While there is a general level of satisfaction with the performance of NSW students against state standards there has been some concern about the performance of Year 7 students in numeracy when assessed against the national benchmarks. This chapter will describe the performance of NSW students and present an analysis of the issues.

6.2   Performance on the NSW tests

6.2.1   The Basic Skills Tests

Data on the numeracy and literacy achievement of NSW students in government schools (DET, 2005) is presented in two forms: the percentages of students in each of the Performance Bands and the mean scores on the numeracy and literacy scales. The skill bands represent the same standard in both Year 3 and Year 5, although Year 5 has an additional band (Band 6) to describe their higher achievement. Students are considered to have reached the minimum standard if their BST performance puts them in Band 2 or higher in Year 3, and Band 3 or higher in Year 5. Student abilities, on a logit scale, are determined from a Rasch analysis of the test items. These ability measures, most of which lie between -3 and +3, are scaled by linear transformations to yield the numeracy and literacy marks that are reported. These reported BST marks lie between 35 and 65.

Tables 6.1 and 6.2 show the percentages of students in the six Performance Bands for numeracy and literacy for the period 2000 to 2004. The relatively large percentages in the higher bands for each of Year 3 and 5 indicate the high level of achievement of NSW students in both numeracy and literacy, with relatively few students not reaching the minimum standards. There is little variation in the patterns of percentages over time.
Table 6.1  Percentage of students in NSW government schools in the BST  Performance Bands for literacy\(^1\): 2000 - 2004

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Band</th>
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<td>15.1</td>
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<td>18.1</td>
<td>17.7</td>
<td>16.6</td>
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<td>24.3</td>
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<td>23.0</td>
<td>24.9</td>
<td>25.6</td>
<td>27.8</td>
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</table>

Note: Literacy, in this table encompasses Reading, Language and Writing.

Table 6.2  Percentage of students in NSW government schools in the BST  Performance Bands for numeracy: 2000 - 2004

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<thead>
<tr>
<th>Year 3</th>
<th>Band</th>
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<th>2004</th>
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<tr>
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<td>15.4</td>
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<td>25.1</td>
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<td>24.9</td>
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</tbody>
</table>

Table 6.3 shows the BST means for numeracy, literacy and writing. In this table literacy is based on reading and language so that the means for the period from 1996, the reference year, to 2005 are based on the same components. The literacy and numeracy means presented in Table 6.3 indicate that average student performance has not altered appreciably over this time. No statistical comparisons can be made between the literacy, numeracy and writing means as the three scales are different.
There is also evidence of growth between Years 3 and 5, with an increase of approximately 7 for the literacy and numeracy means and 5-6 for the writing means. It is difficult to interpret these increases because of the lack of description of the achievement continuum used for reporting.

Table 6.3  Mean scores for numeracy, literacy and writing: 1996 - 2005

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<td>50.6</td>
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<tr>
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<tr>
<td>Year 3</td>
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<td>51.5</td>
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<td>Year 5</td>
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<td></td>
</tr>
<tr>
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</table>

6.2.2  ELLA and SNAP

Tables 6.4 and 6.6 show the percentages of students in the four Performance Bands (Low, Elementary, Proficient, High) used for the achievement standards. Because of items in common between the Year 5 and the Year 7 tests, the ability estimates from ELLA and SNAP lie on the same literacy and numeracy logit scales as the BST estimates. However, the results of these Year 7 tests are reported on different scales by employing different linear transformations, with the reported marks ranging from 45 to 120.
Table 6.4  Percentage of students in NSW government schools in the Performance Bands for ELLA: 2001 - 2005

<table>
<thead>
<tr>
<th>Band</th>
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<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
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<td></td>
</tr>
<tr>
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<td>4.4</td>
<td>4.2</td>
<td>4.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Elementary</td>
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<td>12.0</td>
<td>12.7</td>
<td>12.6</td>
</tr>
<tr>
<td>Proficient</td>
<td>52.0</td>
<td>51.8</td>
<td>51.1</td>
<td>49.1</td>
<td>50.3</td>
</tr>
<tr>
<td>High</td>
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<td>30.2</td>
<td>32.8</td>
<td>33.7</td>
<td>32.6</td>
</tr>
<tr>
<td>Year 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
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<td>3.0</td>
<td>2.7</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Elementary</td>
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<td>8.8</td>
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</tr>
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<td>47.9</td>
<td>46.4</td>
<td>45.0</td>
<td>45.8</td>
</tr>
<tr>
<td>High</td>
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<td>43.3</td>
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</tr>
</tbody>
</table>

Table 6.5  Percentage of students in NSW government schools in the Performance Bands for SNAP: 2001 - 2005

<table>
<thead>
<tr>
<th>Band</th>
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<th>2002</th>
<th>2003</th>
<th>2004</th>
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<td>5.5</td>
<td>5.3</td>
<td>4.6</td>
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<tr>
<td>Elementary</td>
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<td>25.5</td>
<td>31.0</td>
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</tr>
<tr>
<td>Proficient</td>
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<tr>
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<td>28.7</td>
<td>24.3</td>
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<td>24.2</td>
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<tr>
<td>Year 8</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>2.3</td>
<td>3.4</td>
<td>3.1</td>
<td>2.8</td>
<td>2.4</td>
</tr>
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<td>18.2</td>
<td>22.6</td>
<td>21.6</td>
<td>22.0</td>
</tr>
<tr>
<td>Proficient</td>
<td>35.8</td>
<td>38.2</td>
<td>38.9</td>
<td>40.6</td>
<td>39.9</td>
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<tr>
<td>High</td>
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<td>40.2</td>
<td>35.4</td>
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<td>35.7</td>
</tr>
</tbody>
</table>

The data presented in Tables 6.4 and 6.5 show only small changes (decreases between 1% and 2%) from Year 7 to Year 8 in the percentages of students in the lowest band, but large increases (approximately 10% for ELLA and 12% for SNAP) in the percentages of students in the highest band. Changes in the distributions of the percentages of students in the four bands show that, overall, approximately 5% of the cohorts move from Elementary in Year 7 to Proficient in Year 8, and 10% move from Proficient in Year 7 to High in Year 8. The patterns of percentages indicate that performance of students has improved from Year 7 to Year 8.

The patterns of percentages, however, show a discontinuity in 2003 for SNAP but not for ELLA. For 2001 and 2002 there are similar percentages of students in each band for ELLA and SNAP, with approximately 30% of Year 7 in the highest band. The patterns of percentages for ELLA do not change for 2003 to 2005, but for SNAP there is a reduction of 5% in the percentages of students in the High band and an increase of approximately of 6%
and 4% in the percentages of students in the Elementary band for year 7 and 8 respectively. The result is that there was a marked difference in the distribution of students across the performance bands for SNAP and ELLA after 2002.

A similar pattern is observed in the table of mean scores (Table 6.6). The means for reading, writing and language vary little over time, but a drop in the SNAP mean occurs from 2002 to 2003 for both Year 7 and Year 8 cohorts. Interpretation of the decrease is difficult because of the stability of student performance from 2003 to 2005. If the decline represented a general decline in student performance it might be expected to continue beyond two years. It is possible that the decline is the result of initial instability in the standard during the first two years of the SNAP test or in the distribution of item difficulties in the tests during this period.

Table 6.6  Mean scores for SNAP and ELLA: 1998 - 2005

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</tr>
<tr>
<td><strong>Writing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7</td>
<td>88.1</td>
<td>88.6</td>
<td>88.7</td>
<td>88.1</td>
<td>88.7</td>
<td>88.7</td>
<td>88.7</td>
<td></td>
</tr>
<tr>
<td>Year 8</td>
<td>90.1</td>
<td></td>
<td>90.1</td>
<td>89.6</td>
<td>90.3</td>
<td>90.2</td>
<td>90.2</td>
<td></td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7 Language</td>
<td>88.7</td>
<td>88.5</td>
<td>88.7</td>
<td>88.3</td>
<td>88.6</td>
<td>88.9</td>
<td>88.8</td>
<td></td>
</tr>
<tr>
<td>Year 8 Language</td>
<td>90.0</td>
<td></td>
<td>90.2</td>
<td>89.5</td>
<td>90.1</td>
<td>90.5</td>
<td>90.5</td>
<td></td>
</tr>
<tr>
<td><strong>SNAP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7</td>
<td>86.7</td>
<td>86.0</td>
<td>84.7</td>
<td>85.1</td>
<td>85.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 8</td>
<td>89.6</td>
<td>88.7</td>
<td>87.4</td>
<td>87.8</td>
<td>87.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ELLA was not administered in 2000 because of an industrial dispute

In her analysis of the 2003 benchmark results, Bruniges (2003) reported that there was a lower proportion of hard items in the 2003 SNAP test compared to the 2001 and 2002 tests. Examination of her data showed that there were also proportionally fewer hard items in the 2002 test compared to the 2001 test, but the difference was not as great as between 2003 and 2002. Having fewer hard items can lead to poorer discrimination at the top end of the reporting scale, which can subsequently lead to an underestimation of the ability of some of the more able students. The end result will be a lower mean on the logit scale and a
consequent lower reported mean. While the SNAP data from 2001 to 2003 support this conjecture, without further data on the distribution of item difficulties for years 2004 and 2005 this conjecture is impossible to test formally. However, it does provide an explanation why there was a decrease in the reported performance in SNAP but not in ELLA or writing, and does highlight the importance of having sufficient hard items to discriminate between the more able students.

The data in Tables 6.4, 6.5 and 6.6 provide evidence of growth from Year 7 to Year 8, with approximately an additional 10% of students being in the High band in literacy and approximately an additional 6% of students in the High band in numeracy. The increases in the means after 2003 are approximately 1.6 for literacy and 2.7 for numeracy, but it is not possible to attach meaning to these increases because of the lack of description of the achievement continuum used for reporting. Because the numeracy and literacy scales are different we cannot use these data to draw comparisons about the relative increases in numeracy and literacy.

6.2.3 Changes in numeracy and literacy from Year 3 to Year 8

The ability estimates obtained from the Rasch analyses, rather than the reported means, were used to compare changes in literacy and numeracy across school grades. Because of the common items on adjacent tests, the ability estimates for numeracy and literacy, in logits, lie on common numeracy and literacy scales respectively so the means can therefore be compared across school grades for different cohorts of students. The mean ability estimates (Table 6.7) provide the same information as presented in previous tables, showing the relative stability across time for most measures, and the drop in the SNAP means in 2003.
Table 6.7  Mean numeracy and literacy scores on the common logit scales

<table>
<thead>
<tr>
<th>Year</th>
<th>Numeracy</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 3</td>
<td>Year 5</td>
</tr>
<tr>
<td>1996</td>
<td>0.73</td>
<td>1.65</td>
</tr>
<tr>
<td>1997</td>
<td>0.52</td>
<td>1.67</td>
</tr>
<tr>
<td>1998</td>
<td>0.53</td>
<td>1.67</td>
</tr>
<tr>
<td>1999</td>
<td>0.59</td>
<td>1.70</td>
</tr>
<tr>
<td>2000</td>
<td>0.47</td>
<td>1.60</td>
</tr>
<tr>
<td>2001</td>
<td>0.58</td>
<td>1.71</td>
</tr>
<tr>
<td>2002</td>
<td>0.66</td>
<td>1.70</td>
</tr>
<tr>
<td>2003</td>
<td>0.63</td>
<td>1.67</td>
</tr>
<tr>
<td>2004</td>
<td>0.56</td>
<td>1.77</td>
</tr>
<tr>
<td>2005</td>
<td>0.75</td>
<td>1.73</td>
</tr>
</tbody>
</table>

There are four cohorts for which test scores exist for each of Years 3, 5, 7 and 8: the cohorts commencing in 1997, 1998, 1999 and 2000. The literacy and numeracy scores for those cohorts are presented in Table 6.8, and the graphical displays given in Figures 6.1 and 6.2.

Table 6.8  Mean numeracy and literacy scores of four complete cohorts of students on the common logit scales

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Numeracy</th>
<th>Year 3</th>
<th>Year 5</th>
<th>Year 7</th>
<th>Year 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997 – 2002</td>
<td>0.52</td>
<td>1.70</td>
<td>2.22</td>
<td>2.48</td>
<td></td>
</tr>
<tr>
<td>1998- 2003</td>
<td>0.53</td>
<td>1.60</td>
<td>2.13</td>
<td>2.31</td>
<td></td>
</tr>
<tr>
<td>1999- 2004</td>
<td>0.59</td>
<td>1.71</td>
<td>1.96</td>
<td>2.37</td>
<td></td>
</tr>
<tr>
<td>2000- 2005</td>
<td>0.47</td>
<td>1.70</td>
<td>2.01</td>
<td>2.35</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997 – 2002</td>
</tr>
<tr>
<td>1998- 2003</td>
</tr>
<tr>
<td>1999- 2004</td>
</tr>
<tr>
<td>2000- 2005</td>
</tr>
</tbody>
</table>
Table 6.8 and Figures 6.1 and 6.2 show that for both literacy and numeracy the rate of growth between years 3 and 5 is greater than between years 5 and 7 and the patterns are similar over the four cohorts. Although literacy and numeracy are on different scales we might expect the growth rates to be similar, and they are for Year 3 to Year 5. For Year 5 to Year 7 the data in Table 6.8 suggests that the growth in numeracy exceeds that for literacy. There is no evidence to suggest that it is less.
The graphs highlight the lower rate of growth for SNAP from Year 5 to Year 7 in 2003, followed by a higher rate of growth from Year 7 to Year 8.

6.2.4 Summary

The BST data showed stability over time for numeracy and literacy, both in terms of the percentages of students in the Performance Bands and the mean scores. The ELLA results also showed a great deal of stability but the SNAP means showed a decline from 2002 to 2003 together with a corresponding decrease in the percentage of students in the High band. However, the percentage of students in the Low band did not change – the shift in reported performance was in the higher bands.

For both literacy and numeracy there was evidence of growth in performance as measured by the common scale, from Year 3 to Year 8, with the greatest rate of growth being from Year 3 to Year 5. The lowest rate of growth was from Year 5 to Year 7. There was no evidence to suggest that the growth in numeracy from Year 5 to Year 7 was less than that for literacy.

Approximately 10% of the students in Years 3 and 5 did not achieve the minimum standards in numeracy and literacy for those years: Band 1 for Year 3 and Band 2 for Year 5. However, the average percentage of students in the Low band for Year 7 SNAP was 4.6% and for ELLA 4.2%, which are much lower than the corresponding figures for Years 3 and 5. It is likely that the meanings given to the lowest bands for the BST and ELLA/SNAP are different, which is surprising and needs to be addressed when the national tests are introduced. An alternative explanation is that Year 5 students in Performance Bands 1 and 2 improved more than students in the other bands, but this is less likely.

6.3 Performance of New South Wales students against the national benchmarks

The national benchmarks for Year 3 and Year 5 students for literacy and numeracy were developed at the same time in 1998 and the Year 7 benchmarks developed several years later, independently of those in years 3 and 5. Benchmarks are defined as the minimum acceptable standard of proficiency without which a student will have difficulty making sufficient progress at school. Table 6.9 shows the percentage of NSW students achieving the national benchmarks in Numeracy and Literacy for the period 1999 to 2004.

The benchmark data show substantial stability for the period 1999 to 2004, with over 90% of Year 3 and Year 5 students achieving the national benchmarks in all except two years. The
percentage of students achieving the national benchmarks in the areas of literacy and numeracy are similar, but are different from the percentage of students achieving the Writing benchmarks. For Years 3 and 5, more students achieved the national benchmarks than achieved the corresponding minimum standards on the New South Wales tests.

Table 6.9  Percentage of NSW students achieving the national benchmark standards: 1999 – 2004

<table>
<thead>
<tr>
<th>Year 3</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>93.7</td>
<td>93.1</td>
<td>91.3</td>
<td>92.1</td>
<td>93.0</td>
<td>92.2</td>
</tr>
<tr>
<td>Numeracy</td>
<td>93.2</td>
<td>95.0</td>
<td>95.3</td>
<td>96.7</td>
<td>95.8</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>92.5</td>
<td>91.7</td>
<td>89.9</td>
<td>94.4</td>
<td>95.4</td>
<td>95.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 5</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>90.3</td>
<td>89.1</td>
<td>92.0</td>
<td>92.3</td>
<td>91.7</td>
<td>90.7</td>
</tr>
<tr>
<td>Numeracy</td>
<td>91.1</td>
<td>91.7</td>
<td>91.2</td>
<td>91.3</td>
<td>92.2</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>95.5</td>
<td>94.3</td>
<td>95.9</td>
<td>95.6</td>
<td>95.7</td>
<td>95.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 7</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>88.0</td>
<td>88.0</td>
<td>88.9</td>
<td>88.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numeracy</td>
<td>79.2</td>
<td>78.2</td>
<td>73.9</td>
<td>76.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>92.5</td>
<td>90.9</td>
<td>92.2</td>
<td>93.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average percentage of students achieving the national Literacy benchmark in Year 7 across the five year period was 88.2%, which is close to the average percentage of students who achieved at least the Proficiency standard (82.8%) in ELLA. The average percentage of Year 7 students achieving the national benchmark in Writing was 92.3%. Numeracy was at odds with the other two areas, with the average percentage of students achieving the national benchmark being 77% for the period 2001 to 2005. This figure of 77% is closer to the percentage of Year 7 students achieving the Proficient level in SNAP than to the percentage of students achieving at least the Low standard in SNAP. Approximately 96% of Year 7 students achieved at least the Low standard in SNAP for 2001 to 2005, 70% achieved at least the Proficient level for 2001 and 2002, and 65% achieved at least the Proficient level for 2003 to 2005. Despite the drop in Year 7 performance in SNAP in 2003, which has been discussed earlier, the data indicate that the national benchmark level for numeracy is closer to the Proficiency standard in SNAP for the period 2001 to 2005.

The conclusion to be drawn from the analysis presented above is that the way the benchmark standards are conceptualised show a marked difference between Year 7 and years 3 and 5. For
Year 7 the national benchmark standards are comparable with the NSW *Proficiency* standards, whereas for years 3 and 5 the national benchmark standards are similar to the New South Wales *minimum* standards.

Before discussing the issue further, Tables 6.10 to 6.12 show the performance of NSW students against the national averages for numeracy and literacy. The numeracy benchmark data reinforce the earlier observations about the performance of New South Wales students. For Years 3 and 5, NSW students performed better than the national average, but their performance in Year 7 was below average. What is noticeable, however, is that the national average for Year 7 is lower than the national average for both Years 3 and 5 by more than 10%.

In literacy, New South Wales Year 3 and Year 5 students performed above the national average for most years. The performance of Year 7 students was close to the national average for each year except in 2004 when the NSW percentage was 88.1% compared with the national average of 91.0%. This is somewhat surprising, given that the performance of the 2004 NSW Year 7 cohort on ELLA was similar to the performance of previous cohorts. In contrast to the results for Numeracy, the national averages for literacy for Years 3 and 5 were more variable than for numeracy, and the national averages for literacy did not decrease for Year 7.

Table 6.10 Performance of NSW students against national benchmarks - numeracy

<table>
<thead>
<tr>
<th>Numeracy</th>
<th>Percentage of students meeting national benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Year 3</td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>93.2</td>
</tr>
<tr>
<td>National average</td>
<td>92.7</td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>91.1</td>
</tr>
<tr>
<td>National average</td>
<td>89.6</td>
</tr>
<tr>
<td>Year 7</td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>79.2</td>
</tr>
<tr>
<td>National average</td>
<td>82.0</td>
</tr>
</tbody>
</table>
Table 6.11  Performance of NSW students against national benchmarks - literacy

<table>
<thead>
<tr>
<th>Year</th>
<th>Literacy</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>NSW</td>
<td>93.7</td>
<td>93.1</td>
<td>91.3</td>
<td>92.1</td>
<td>93.0</td>
<td>92.2</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>89.7</td>
<td>92.5</td>
<td>90.3</td>
<td>92.3</td>
<td>92.4</td>
<td>93.0</td>
</tr>
<tr>
<td>5</td>
<td>NSW</td>
<td>90.3</td>
<td>89.1</td>
<td>92.0</td>
<td>92.3</td>
<td>91.7</td>
<td>90.9</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>85.6</td>
<td>87.4</td>
<td>89.8</td>
<td>89.3</td>
<td>89.0</td>
<td>88.7</td>
</tr>
<tr>
<td>7</td>
<td>NSW</td>
<td>88.0</td>
<td>88.0</td>
<td>88.9</td>
<td>88.1</td>
<td>88.0</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>88.4</td>
<td>89.1</td>
<td>89.4</td>
<td>91.0</td>
<td>88.7</td>
<td>89.2</td>
</tr>
</tbody>
</table>

In Writing, for almost all years, NSW students performed above the national average and had a consistently high ranking. The national averages did not decrease substantially for Year 7.

Table 6.12  Performance of NSW students against national benchmarks - Writing

<table>
<thead>
<tr>
<th>Year</th>
<th>Writing</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>NSW</td>
<td>92.5</td>
<td>91.7</td>
<td>89.9</td>
<td>94.4</td>
<td>95.4</td>
<td>95.8</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>91.9</td>
<td>90.0</td>
<td>89.5</td>
<td>93.6</td>
<td>92.2</td>
<td>92.9</td>
</tr>
<tr>
<td>5</td>
<td>NSW</td>
<td>95.5</td>
<td>94.3</td>
<td>95.9</td>
<td>95.6</td>
<td>95.7</td>
<td>95.9</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>93.0</td>
<td>92.5</td>
<td>94.0</td>
<td>93.6</td>
<td>94.1</td>
<td>94.2</td>
</tr>
<tr>
<td>7</td>
<td>NSW</td>
<td>-</td>
<td>92.5</td>
<td>90.9</td>
<td>92.2</td>
<td>93.7</td>
<td>93.7</td>
</tr>
<tr>
<td></td>
<td>National average</td>
<td>-</td>
<td>92.6</td>
<td>90.7</td>
<td>92.1</td>
<td>93.6</td>
<td>93.6</td>
</tr>
</tbody>
</table>

In summary, the performance of NSW students when judged against the benchmarks is either above or close to the national average except for Year 7 numeracy. The national averages for literacy and Writing were similar across years 3, 5 and 7, but the national average in Numeracy showed a decrease for Year 7. These issues will be discussed in Section 6.5.

6.4  Performance of New South Wales students against international benchmarks

The performance of New South Wales students was also assessed against international tests, PISA and TIMSS. The results for the 2003 PISA reading and mathematical Literacy and the 2002/2003 TIMSS mathematics tests are presented below (Table 6.13).
Table 6.13 Performance of NSW students against international benchmarks: 2003

<table>
<thead>
<tr>
<th>Percentage of students meeting minimum standard</th>
<th>PISA Reading 15 year-olds</th>
<th>TIMSS Mathematics Year 8</th>
<th>PISA Mathematics 15 year olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>97</td>
<td>91</td>
<td>96</td>
</tr>
<tr>
<td>National average</td>
<td>96</td>
<td>90</td>
<td>96</td>
</tr>
<tr>
<td>International average</td>
<td>93</td>
<td>74</td>
<td>92</td>
</tr>
</tbody>
</table>

The PISA and TIMSS data are not consistent with the national benchmark data in relation to state rankings. In all tests, the percentage of NSW students achieving the minimum specified standard is greater than or equal to both the national and international averages, and the NSW samples are ranked in the first four states. The next section will address this inconsistency.

6.5 The performance of Year 7 New South Wales students in numeracy

The performance of Year 7 students in numeracy has been reported in three ways: against NSW standards encapsulated in SNAP, against the national benchmarks and against international standards encapsulated in PISA and TIMSS. The results are inconsistent. When judged against NSW numeracy standards the Year 7 performance appears satisfactory with approximately 65% of the cohort in the Proficient or High bands, similar to their performance in Literacy for 2001 and 2003, but lower in 2003 to 2005. The numeracy means show, a small decrease in 2003 accompanied by a lower percentage of students in the High band. When judged against the national benchmarks, the performance of the NSW Year 7 cohort is below the national average and below that of most states, and is inconsistent with the performance in Literacy. When judged against TIMSS and PISA, the performance of the NSW cohort is better than both the national average and that of most states. The question is whether the cause of this inconsistency is the Year 7 national numeracy benchmarks for numeracy, the equating process or the NSW test.

6.5.1 The Year 7 national benchmarks

The national Year 7 benchmarks were subject to review by PMRT in 2003 following initial results from the 2001 round of testing and equating, which showed lower than expected results for reading and Numeracy and higher than expected results for Writing. State and territory jurisdictions argued that the percentages of students who achieved the national benchmarks in numeracy and literacy did not accurately reflect the percentage of students at
risk of not making satisfactory progress. The implication was that the Year 7 Numeracy and Literacy standards represented more than a minimal level of proficiency. Reasons advanced for the apparent inconsistency included that the Year 7 benchmarks were developed independently of the Year 3 and Year 5 benchmarks in 1999 when there was little Year 7 data from state-wide tests.

The revision of the 2003 benchmark standards focused on clarifying the descriptors rather than on a major re-write of the standards themselves. Application of the revised national benchmark standards yielded an increase of 12.5 in the percentage of Australian students achieving the literacy benchmark and 2.5 for numeracy. An issue raised during the revision of the numeracy benchmarks was the extent to which the benchmark standards were intended to describe desirable minimal standards or existing minimal standards. The Year 3 and Year 5 benchmarks described existing minimal standards but the 2003 revisions to both the reading and numeracy benchmark descriptions attempted to maintain the notion of desirable minimal standards embedded in the initial benchmarks (PMRT, 2003, p.19).

NSW data presented above provide evidence of this inconsistency in the determination of the national benchmarks. For Year 7 the national benchmark standards resemble the NSW Proficiency standard, but for earlier years they are lower than the NSW minimum standard. This is an issue that must be resolved when the national tests are introduced to avoid misinterpretation of future benchmark results.

An analysis of the Year 7 benchmarks was carried out by EMSAD in 2005. Table 6.14 shows the benchmark cut-scores for years 3, 5 and 7, in logits, on NSW scales and the difference between Years 3 and 5 and between Year 5 and 7.

<table>
<thead>
<tr>
<th></th>
<th>Numeracy</th>
<th>Literacy</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3</td>
<td>-1.298</td>
<td>-1.062</td>
<td>-.0697</td>
</tr>
<tr>
<td>Year 5</td>
<td>0.197</td>
<td>0.372</td>
<td>0.180</td>
</tr>
<tr>
<td>Year 7</td>
<td>1.375</td>
<td>0.928</td>
<td>0.761</td>
</tr>
<tr>
<td>Difference: Year 5 - Year 3</td>
<td>1.495</td>
<td>1.434</td>
<td>0.877</td>
</tr>
<tr>
<td>Difference: Year 7 - Year 5</td>
<td>1.178</td>
<td>0.556</td>
<td>0.581</td>
</tr>
</tbody>
</table>
Literacy and writing are on the same scale, so the benchmark cut-scores are directly comparable. The data show that the writing cut-score is above the literacy cut-score for Year 3 but the positions are reversed for Years 5 and 7. Numeracy is on a different scale so numeracy benchmark cut-scores are not directly comparable with the other cut-scores, but we might expect them to be similar. The differences between Years 3 and 5 are similar but this is not the case for the difference between Years 5 and 7 where the difference in the numeracy cut-score is more than double that for literacy. It appears that the numeracy Year 7 cut-score has been set too high.

The effect of changing the Year 7 numeracy cut-score to make the Year 5/Year 7 difference comparable to the difference for Literacy/Writing is to increase the percentage of New South Wales students achieving the national benchmark in 2003 to 88.1%, which is comparable to the percentage for Literacy. The ranking of NSW for that year would not necessarily be changed as all state percentages would increase, but difference between states would be reduced.

6.5.2 New South Wales reviews of the 2003 benchmark

Because of concern over the NSW 2003 benchmarks results several reviews were conducted. Bruniges (2003) found no evidence of error in the equating phase of the calculation of the 2003 benchmark, but raised questions surrounding spread of item difficulty and equating drift. She concluded that both could have had a negative impact but that it was not possible to assess or quantify the impact of either factor. In her report she recommended that the item selection procedures for subsequent tests ensure that a greater proportion of hard items be chosen.

An ACER report (Tognolini, 2005) found a difference in benchmark performance between LANA and the DET tests for numeracy but not for literacy, suggesting that the difference could be a consequence of test-effect with the LANA test being easier for numeracy and/or that the benchmark was not located in equivalent positions on both tests. Lind (2005) criticised the findings because of sample bias, that the study sample was a more able group than the Year 7 cohort. I agree with Lind’s criticisms about sample bias and his conclusion that the sample bias precludes any definitive findings about differences between LANA and SNAP.
6.5.3 Summary

The question addressed in the preceding sections is whether the relatively low percentage of NSW Year 7 students achieving the national numeracy benchmark is a consequence of the position of the benchmark or the poor performance of New South Wales students. The evidence presented supports the proposition that the Year 7 numeracy benchmarks are aspirational, representing *desired minimal standards*, and therefore conceptually different from the Year 3 and Year 5 benchmarks. Consequently the Year 7 benchmark cut-score is set too high on the NSW scale, and the scales of all state and territory scales. A lower cut-score would result in a higher percentage of NSW Year 7 students achieving the numeracy benchmark, making the numeracy and literacy results comparable for Year 7, but would not necessarily change the low ranking for New South Wales.

The low ranking for New South Wales on Year 7 numeracy is not consistent with data collected from TIMSS in Year 8 and PISA for 15 year-old students. It is likely that when the percentages for all states were raised, the state and territory percentages would be closer together so there would be more overlap when the standard errors are taken into account.

The decrease in performance of the Year 7 students on the 2003 SNAP test is puzzling. A possible explanation has been given in terms of the lower proportion of hard items in the 2003 SNAP test when compared to earlier tests, but this does not explain the similar performance for 2004 and 2005, unless the proportion of hard items was not increased in 2004 and 2005. Further research needs to be carried out to test this hypothesis.

The data from the state and international tests do not support the argument that there is a decrease in performance in numeracy in Year 7. There is more support for the conclusion that the Year 7 numeracy benchmarks are too demanding when compared to Year 3 and Year 5 benchmarks. This is not a conclusion about the relative merits of having the benchmarks as *desirable minimum standards* or *existing minimum standards* – this is an argument for another time. However, it is a question that must be answered before the national common tests are implemented. Having benchmarks which are conceptually different makes any statement about improvement between school grades meaningless.

The data analysed in this section have been derived from state-wide tests. Further data were collected from teachers and principals and will be reported in the following section.
6.6 Perceptions from schools

Lack of comparable data made the question about a possible decline in numeracy achievement at the beginning of Year 7 difficult to answer: secondary teachers had no Year 6 baseline data, and primary teachers had no Year 7 results for their students. Teachers on both sides of the primary/secondary divide therefore argued that there should be a transfer of BST and SNAP/ELLA across the sectors. For secondary schools BST data would provide information about their Year 7 intakes while for primary schools SNAP/ELLA results would give them information about how their students were performing at high school. Both sectors agreed that such information would assist whole-school planning.

Many staff in the secondary schools stated that, in the absence of Year 6 data that were comparable across the large number of their feeder schools, they administered screening tests at the beginning of Year 7 to assess the strengths and weaknesses of their student intakes. The results from these tests assisted their planning for their new Year 7. Staff in the primary schools argued that since SNAP and ELLA were based on Stage 3 outcomes, knowledge of their students’ results on these tests would help them identify curriculum weakness in Years 5 and 6, and therefore assist them in whole of schooling planning at this stage.

The stated reasons for a decline in numeracy achievement, if it exists, varied. Primary teachers tended to comment on the perceived change in pedagogy from primary to secondary: *secondary mathematics teachers just teach from the textbook*. Some commented that primary teachers spent more time on literacy than numeracy, that they found it easier to integrate literacy across the curriculum rather than numeracy. Others noted that they just felt more comfortable with literacy than numeracy. Secondary teachers also gave varied reasons: some agreed with the perception that the majority of primary teachers were more comfortable with literacy than numeracy, others commented that the way Mathematics was programmed in Year 7 may have had an effect. Their argument was that the SNAP test covers all the Stage 3 outcomes in Mathematics, but because Year 7 Mathematics tends to be taught in a linear fashion, topic by topic, some areas tested in SNAP may not have been revised in Year 7. Other comments were made about the relatively heavy literacy load in the SNAP test and that students with relatively weak literacy skills would be disadvantaged. These perceptions are not supported by the results of LBOTE students on SNAP, but there is no way of testing the assertion from published data for students whose background language is English. These reasons are not new and may simply reflect stereotypical perceptions that secondary teacher hold about primary classrooms, and vice versa.
What did emerge from the interviews was the insularity of the primary and secondary sectors. Few of the Mathematics teachers interviewed said that they took notice of their students’ prior results in Mathematics: their argument was that, with the large number of feeder primary schools and the differences between these schools, they needed to cover all the Year 7 syllabus content, starting from the beginning of the syllabus document. In their view, repeating Stage 3 material in Year 7 was preferable for all students. Some Year 7 classes were streamed on the basis of an early screening test but that was all.

Interviews carried out in schools with a Middle School structure, in general, gave similar data. There was little continuity between Year 6 and Year 7 Mathematics even when Year 7 was taught by generalist teachers, or when specialist Mathematics teachers were used for Year 6 classes. There was little support for specialist Mathematics being used for primary classrooms in general but there was some support for having more interchange between Years 6 and 7 for high achieving students.

In summary, the interviews did not provide definite answers to the question about the level of numeracy at the primary/secondary divide or what constituted “best practice” for this transition phase, and because of the limited number of schools visited, the perceptions cannot be generalised. What did emerge were some lines of enquiry and issues for future research.

6.7 Discussion

The findings from this chapter do not support the hypothesis that performance of NSW Year 7 students in numeracy is worse that their performance in literacy, nor that their performance is substantially below that of other states and territories. The anomalous performance of New South Wales students against the national Year 7 Numeracy benchmarks is most likely to be the result of the Year 7 national numeracy benchmarks being set too high. A shift in the benchmark cut-score to what is a level consistent with the Year 3 and Year 5 benchmarks results in the percentage of NSW Year 7 students achieving the national benchmarks being comparable to the percentage achieving the literacy benchmarks. As noted above, the ranking of New South Wales against the other states may not change.

The analyses presented in this chapter do, however, raise several important issues concerning the nature of national benchmarks, the structure of national tests and the change in numeracy and literacy achievement at the primary/secondary transition.
The data and other evidence suggest that the Year 7 benchmarks are aspirational and represent a *desired minimum standard* rather than the *existing minimum standard* used for Years 3 and 5. It can be argued that it is immaterial which conceptual definition is used, but it is important that the same conceptual definition be used for *all* benchmarks, otherwise comparisons cannot be made between the performance of student cohorts at different stages in their schooling. Having said this, it does not mean that the benchmark standards will remain unaltered over time: they will of necessity be modified in the light of curriculum changes and the meaning given to *making progress at school* which was part of the original definition of a benchmark standard.

A second implication for the national tests is the need to have sufficient hard items to differentiate between high achieving students, an issue that has been mentioned previously in this report.

**Recommendation 1:**

*That the national body responsible for the common tests of and literacy use a consistent conceptual definition for determining the benchmark standards for years 3, 5, 7 and 9, whether a desirable or a minimum standard.*

What appears to be a lack of continuity in Mathematics teaching at the transition is a cause for some concern and a common perception appeared to be that, for Mathematics, *it was better to start at the beginning for all students to ensure that they all knew the necessary content.* However, this method was not seen to be necessary for literacy where a range of strategies is employed. A middle school approach of itself might not be sufficient to address these issues. The middle school literature and information gained about this practice in several schools suggested that more is needed. There is a clear need for additional research in ways of meeting the needs of students entering high school who have not demonstrated the Stage 3 syllabus outcomes, apart from re-teaching the material. Given the current interest in middle schooling there is the opportunity to evaluate the transition arrangements from primary to secondary school, including the transfer of student data.

**Recommendation 2:**

*That research be encouraged to determine appropriate teaching strategies for students entering secondary school with weaknesses in Mathematics.*
Recommendation 3:

*That an evaluation of the transition arrangements from primary to secondary school be conducted.*

While the data show that students do improve their numeracy skills from Year 5 to Year 7, there is no clear answer whether the development is uniform or whether there is a discontinuity in Year 7 as a result of the transition. An argument was made that some skills which were demonstrated in Year 6 may have been forgotten in Year 7 because of the way Mathematics is programmed in Year 7. This theory can be tested by having a sample of Year 6 students complete the SNAP test in Term 4. Some teachers also criticised the SNAP tests because they perceived that the tests disadvantaged students who had poor literacy skills. While published data showed that students from a non-English background did well on the SNAP test, there was no data relating numeracy test results to literacy levels. Two recommendations emerge from these observations.

Recommendation 4:

*That the SNAP test be administered to a sample of NSW Year 6 students in Term 4 to determine the rate of development of mathematical skills across the primary/secondary transition,*

Recommendation 5:

*That research be conducted on the way that literacy levels affect student performance on the SNAP test.*

The following chapters build on the research findings presented in this chapter and the previous chapter to formulate a national and then a state assessment framework.
7.1 Introduction

The National Key Performance Measures and their monitoring role in relation to the National Goals for Schooling were described in Chapter 2 and this chapter addresses two broad issues in relation to the KPMs: whether they provide an adequate basis for monitoring progress towards achievement of the National Goals for Schooling and whether data from the national testing program can be used to improve teaching and learning in Australian schools. In order to address these questions fully, consultations were conducted with key personnel in other jurisdictions.

7.2 Who are we testing for?

In the absence of a national curriculum there may be some arguments about what the tests should be assessing, but there are no doubts as to who the tests are for. The full cohort common tests for numeracy and literacy are to inform parents about the standing of their child in relation to national benchmarks, to inform state and territory systems about the performance of students in their schools against the benchmarks, and to inform the Australian government about the performance of students overall. These tests are for government, educational jurisdictions, schools and parents. As such, they will provide performance data for Australia as a whole, for states and territories, for schools and for individual students.

The light sample tests are to inform the Australian government and states and territories about the performance of students in other learning areas against specified standards. TIMSS and PISA are to provide information about the performance of Australian students against students in other countries. These tests are for educational jurisdictions, and will provide performance data for Australia as a whole and for states and territories, but not for individual students or schools. The extent to which these tests can monitor progress towards achievement of the National Goals of Schooling will depend on the quality of the tests and the relationship between the measurement frameworks and the essential content and skills of the key learning areas. The extent to which data from these tests can lead to improved teaching and learning depends on the quality of reporting and the appropriateness of the feedback provided to jurisdictions, and, through them, to schools. These issues will be discussed in the following sections.
7.3 Assessment frameworks

7.3.1 Numeracy and literacy

There are three steps in the development of the common national tests: specification of an assessment domain, then a measurement framework and finally an organising framework. The assessment domain describes the content and skills to be assessed, the measurement framework describes the structure of the tests and the organising framework describes the way the content and skills are organised into sub-strands.

In the absence of a national curriculum, the national assessment domains for numeracy and literacy have been based on the common elements in current state and territory numeracy and literacy tests. In formulating these assessment domains, areas that were restricted to one or several jurisdictions were excluded, since all students across Australia would not have the same opportunity to learn the particular content or skills associated with those areas. Consequently there are some aspects of curriculum which are currently delivered and assessed in some states and territories but which are not represented within the assessment domains for the national tests. Concern has been expressed in all jurisdictions that developing the national tests around the least common denominator will reduce the relationship between what is taught in their schools and the national tests, and hence reduce the usefulness of the national tests for school improvement. New South Wales illustrates this concern.

PMRT has specified a measurement framework consisting of four tests, which will be conducted in each of years 3, 5, 7 and 9 (Table 7.1). The tests are Reading, Writing, Spelling and Numeracy, with a total testing time rising from approximately three hours for Year 3 to approximately four hours for Year 9. Numeracy is to be reported as a single scale and language, which is reported separately in the current NSW tests, is embedded in writing.
Table 7.1  Summary of draft measurement frameworks for the national tests of literacy and numeracy

<table>
<thead>
<tr>
<th></th>
<th>Reading</th>
<th>Writing</th>
<th>Spelling</th>
<th>Numeracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3</td>
<td>30-35 items approx 45 minutes</td>
<td>9 criteria 1 task – narrative approx 45 minutes</td>
<td>Approx 25 items 25 minutes + spelling in writing</td>
<td>50-60 items 2 x 30 minutes sessions</td>
</tr>
<tr>
<td>Year 5</td>
<td>30-35 items approx 50 minutes</td>
<td>9 criteria 1 task – narrative approx 45 minutes</td>
<td>Approx 25 items 25 minutes + spelling in writing</td>
<td>50-60 items 2 x 30 minutes sessions</td>
</tr>
<tr>
<td>Year 7</td>
<td>30-35 items approx 55 minutes</td>
<td>9 criteria 2 tasks – narrative &amp; argument approx 2 x 45 minutes</td>
<td>Approx 25 items 25 minutes + spelling in writing</td>
<td>50-60 items 2 x 35 minutes sessions</td>
</tr>
<tr>
<td>Year 9</td>
<td>30-35 items approx 60 minutes</td>
<td>9 criteria 2 tasks – narrative &amp; argument approx 2 x 45 minutes</td>
<td>Approx 25 items 25 minutes + spelling in writing</td>
<td>50-60 items 2 x 40 minutes sessions</td>
</tr>
</tbody>
</table>

Within each test is an organising framework that describes the way the content and skills are organised into sub-strands. Reading has four sub-strands, Writing has nine sub-strands including punctuation that would, in NSW, be part of language, and numeracy has five sub-strands (Table 7.2).

Table 7.2  Organising frameworks for national tests of literacy and numeracy

<table>
<thead>
<tr>
<th>Sub-strands</th>
<th>Reading</th>
<th>Writing</th>
<th>Numeracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contextual understandings</td>
<td>Narrative competence</td>
<td>Algebra, function &amp; pattern</td>
</tr>
<tr>
<td></td>
<td>Text location</td>
<td>Thematic competence</td>
<td>Measurement</td>
</tr>
<tr>
<td></td>
<td>Interpretation skills</td>
<td>Structural components</td>
<td>Chance and data</td>
</tr>
<tr>
<td></td>
<td>Text and language knowledge</td>
<td>Cohesive control</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Narrative effect</td>
<td>Space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sentence structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vocabulary</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paragraphing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Punctuation</td>
<td></td>
</tr>
</tbody>
</table>

There is much in common between the NSW literacy and numeracy tests and the draft assessment frameworks shown above, but there are also substantial differences. The loss of the language strand is regretted by educationalists in New South Wales as is the reduction of the text types from two to one in the writing test for Year 3 and 5. For writing, New South Wales tests currently require two text types, narrative and argument, for all years, other states require only one task (Table 7.3) and the national tests require the Year 3 and Year 5 students to write only one narrative.
Table 7.3  Text types required in the writing task, by state and territory

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Text types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Capital Territory</td>
<td>Argument</td>
</tr>
<tr>
<td>New South Wales</td>
<td>Narrative and argument</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>Argument</td>
</tr>
<tr>
<td>Queensland</td>
<td>Argument/recount/description</td>
</tr>
<tr>
<td>Victoria</td>
<td>Narrative/description</td>
</tr>
<tr>
<td>Western Australia/Tasmania</td>
<td>Narrative</td>
</tr>
<tr>
<td>South Australia</td>
<td>Narrative</td>
</tr>
</tbody>
</table>

The justification for having only one writing task is in terms of cost and demands on young students (PMRT, 2005a).

> Because of the costs associated with marking and the demands on younger students of completing all the components of the literacy assessment, students in Years 3 and 5 will be assessed on one piece of extended writing. The recommended genre is the literary narrative, which is considered engaging for students in this age range and has been proved in testing programs to provide an effective means of showcasing their writing (p. 21).

This argument has merit given that the total testing time for Year 3 is almost three hours, and NSW teachers and principals have expressed a strong view that Year 3 students already find the BST exhausting. On the other hand, it can be argued that knowledge of which test type will be examined may influence the teaching program in the primary years with undue emphasis on narrative to the detriment of other genres.

At a national level it is recognised (PMRT, 2005b) that individual states and territories may decide to include items that are in addition to the elements specified in the national assessment frameworks. If this provision is accepted, New South Wales would be permitted to have additional items for the language strand of literacy if required. However, a separate language test or additional language items would have merit if and only if the assessment of grammar and vocabulary as part of the writing task were deemed unsatisfactory, if teachers regarded the separate reporting of language as essential and if the benefits of a separate test outweighed the time demand on young students and the additional cost.
Underlying the desire for additional tests to assess strands not covered by the national frameworks is the assumption that external assessments are always more reliable, more valid and add value over and above classroom tests. Classroom assessment can be reliable and valid, and can assess a range of outcomes which cannot be assessed through formal tests. An argument can be made, on these grounds, that testing and reporting on language as a separate component can be left to school-based assessment. Whether language will be included as a separate strand of the national literacy tests is, at the time of writing this report, an unresolved issue. At the urging of New South Wales and Victoria, additional items were included in the May 2006 trial of national tests and the issue will be further discussed by PMRT following evaluation of this trial.

There are several issues regarding differences between national and state frameworks in numeracy. Firstly, the national numeracy framework for years 3, 5 and 7 has a uniform spread of items across the four strands of measurement, chance and data, space, and number. Currently in New South Wales there is a greater emphasis on number in Year 3 and measurement in Year 7. Space, in particular, has less emphasis in Year 7 (18%) than in the national framework. Given the percentage of items in the existing Year 3 tests devoted to number (ACT: 26%, NSW: 46%, NT: 40%, QLD: 36%, SA: 28%, Vic: 53%, WA/TAS: 50%), BEMU’s recommendation of 25% in the national framework is perhaps surprising. Their justification (PMRT, 2005c) was as follows:

*The emphases on number in many of the State and Territory Year 3 instruments, if intentional, may reflect instructional emphases. In classrooms there is often a concentrated effort to ensure that students in the earlier Year levels have sound ‘number sense’ before they are expected to apply that knowledge to measuring and working with data in classroom situations they may encounter in their daily lives.*

*While this may be the case, each State and Territory mathematics curriculum gives equal weight and importance to each of the strands. Teachers are encouraged to devote equal instructional time to all aspects of the mathematics curriculum. To reflect the intentions of the curricula, equal emphasis should be given to each of the strands in the assessment* (p. 17).

Their argument is that the weightings given to the elements of numeracy in current state and territory tests are not consistent with their weightings in local curricula. There may be some argument with their justification, but reduced emphasis on number in the early national tests will be balanced by the inclusion of items on chance and data. This is a relatively new area in
the NSW K – 10 Mathematics curriculum, which consequently has received little attention in the previous BST and SNAP tests.

In contrast to current New South Wales practice, numeracy will be reported as a single strand in the national tests. Given the high inter-correlations between the separate numeracy strands it can be argued that little will be lost in reporting numeracy on a single scale (Hungi, 1997), but a counter argument can be made that scores on the separate strands can highlight gaps in teaching at school or system level. This was evident following the introduction of the NSW Basic Skills Tests in 1988 when space was reported as a separate strand. Space was an area that had been given less emphasis than the other areas in Mathematics in primary schools, and the mean for this strand was lower than that for the other strands for the first test. The following year there was a distinct improvement in the mean of this strand. Teachers had responded to the BST results.

A distinction is being made here between what is required at different levels. For the Commonwealth government, a single numeracy scale is sufficient. However, as was demonstrated in Chapter 5, schools have benefited from knowing how their students performed on separate strands as this allowed them to identify areas where their students’ achievements were different from what was expected.

The May 2006 trial

At its meeting in May 2005 MCEETYA agreed that PMRT conduct a trial of the assessment instruments and related processes in a sample of schools in all states and territories in the first half of 2006. The trial was to evaluate all aspects of the national literacy and numeracy testing program: the adequacy of the tests to assess students across the full range of ability, and procurement and other administrative aspects of national testing, marking and reporting. Data from the trial were to be used for the development of vertical scales for each of the domains and establish possible locations for the benchmarks and proficiency bands. The perceived benefit was that the trial will reveal aspects of the tests and testing procedures that will need to be refined in preparation for the full implementation of national testing (PMRT, 2006, p. 6). An evaluation will be conducted at the conclusion of the trial.

The methodology employed for the trialling of test items was to take items from existing state and territory tests for years 3, 5 and 7 and to develop additional items for the Year 9 tests, estimating the required levels of item difficulty. When interviewed in 2005, staff in several jurisdictions stated that there was inadequate time to consider the items, consult and provide feedback on the tests during the development phase for the May 2006 trial. Their concerns were also noted in PMRT minutes (PMRT, 2006).
Given the time constraints, the test development strategy employed by BEMU to develop the trial tests from existing items was the only realistic option. However, a consequence of this strategy was that the content of these trial tests was determined by the pool of items contributed from existing state and territory tests, rather than from agreed Statements of Learning. One can question the wisdom in allowing such a short timeframe for the development of the trial tests when best practice dictates that sufficient time be allowed for test development before a light sample trial, which would then be followed by a full cohort trial. This further trial would permit the vertical scales and benchmark locations to be determined with high degrees of accuracy, as well as evaluating administrative procedures, reporting and feedback mechanisms. Too much has been expected of the May 2006 trial and without further trialling the quality of the national testing program could be at risk.

Currently the assessment frameworks contain definitions of numeracy and literacy, describe test specifications and benchmark standards for years 3, 5 and 7 but there are no descriptions of the expected range of student achievement or of an achievement continuum corresponding to any test. The meaning of any vertical scale is likely to be problematic. No benchmark standards have been described for Year 9: the closest to a description of the Year 9 benchmark is a comment in a PMRT (2005d) document that the Year 9 benchmark could be set equal to the proficiency standard for year 7.

These shortcomings also result from the assessment frameworks being developed in parallel with, rather than after, the Statements of Learning. Statements of Learning provide some insight into the achievement continuum and the expected range of student achievement. It would be desirable to carry out a survey of Year 9 achievement in literacy and numeracy, using the Statements of Learning as frameworks and a methodology similar to the 1996 National English Literacy Survey. Given the timetable for the implementation of national tests, this will not happen.

7.3.2 National Assessment Program tests

The NAP tests of Science literacy, ICT literacy and Civics and Citizenship have been developed by separate organisations at different times.

At Year 10, Science literacy is assessed by the OECD PISA test administered to a sample of 15 year old students. The 2003 Year 6 test was developed by ACER and based on the OECD definition of Science literacy:
the capacity to use scientific knowledge, to identify questions, to investigate and to
draw evidence-based conclusions in order to understand and help make decisions
about the natural world and the changes made to it through human activity

Major scientific concepts found most widely in state and territory Year 6 curriculum
documents were then identified to provide illustrative examples of these three aspects to guide
item development for the NAP Year 6 tests.

While both the Year 6 and PISA tests assess Science literacy, it is unlikely that what
constitutes a proficient standard at the two levels will be comparable. At Year 10 the
proficient standard is defined by the average score on the PISA test but at Year 6 the standard
was specified after analysing the range of student achievement on the first Year 6 test in 2003.
The Year 6 proficiency standard will therefore be fixed, but the Year 10 standard may vary
over time.

The test of Science literacy, with its emphasis on skills rather than content, has a different
focus from the Year 8 Essential Secondary Science Assessment (ESSA), the NSW Year 10
Science examination and the TIMSS Science tests. The three last tests require students to
demonstrate knowledge of a large body of specific content in addition to scientific reasoning.

Different issues emerge with Civics and Citizenship and ICT, which are embedded in the
NSW curriculum either crossing KLA boundaries or within a subject area. For example,
Civics, which emphasises knowledge of government and parliamentary institutions, but not
Citizenship, which emphasises values and behaviour, is embedded in Australian History in
Years 9 and 10. In contrast, ICT is embedded in the total curriculum, crossing the KLA
boundaries. In the formulation of assessment domains for these areas, curriculum knowledge
and expertise from state and territory jurisdictions were utilised to ensure that there would be
some relationship between what is taught in schools and the test content.

7.4 Statements of Learning

Statements of Learning have been developed by the Curriculum Corporation in collaboration
with state and territory authorities and are meant to describe what students should be given
the opportunity to learn at different stages. In relation to English, for example, the national
Statement of Learning describes:

the essential knowledge, understanding, skills and capacities that students should
have the opportunity to learn, i.e. those elements of the intended curriculum in
All the PMRT documentation makes it clear that these Statements of Learning were not intended to be the basis for national standards and national tests. The basis for the standards and tests is found in the benchmark statement:

*the literacy benchmarks, on the other hand, focus on literacy, which could be said to be a subset of English and an extension beyond English. They describe important and essential elements of student achievement i.e. those elements of attainment nationally agreed to be those without which a student would have difficulty in making progress at school* (AESOC, 2005, p. 5).

By specifying what students will be given the opportunity to learn, these Statements of Learning can be regarded as defining curriculum standards that are reasonable, challenging and appropriate to the majority of Australian students. As such, the statements have a similar role to syllabus documents, sets of outcomes or statements of Essential Learning seen in state and territory documents. There is, however, one fundamental difference in their role and that is in their lack of relationship with the national assessment programs. In states and territories, the curriculum documents provide *a basis for assessing, reporting and discussing student progress* (e.g. The NSW Primary Foundation Curriculum Foundation Statements, Board of Studies, 2005, p. 2).

It is interesting to speculate why MCEETYA made such a distinction between the skills and content of Statements and the skills and content underpinning the national benchmarks. One can argue that a Statement of Learning defines a curriculum standard by specifying learning opportunities at different stages of schooling and that the literacy benchmarks represent performance standards, what students need to achieve. It is strange, however, that the assessment domains for any of the national tests were seen as conceptually different from the corresponding Statements of Learning. If these tests are to actually measure the extent to which the National Goals for Schooling are being achieved, they should be assessing at least some elements from the Statements of Learning which define what is common to the curricula of states and territories.

Despite this conceptual difference, the English Statements of Learning and literacy benchmarks have a common ancestry as both were influenced by the learning continuum, standards and assessment domains developed by Masters and Forster (1997). This can be regarded as an accident of history and it is an open question whether the Statements of
Learning for Mathematics, which are being developed, will also be similarly influenced by the numeracy benchmarks and the national tests of numeracy. If this is the case, it follows that the assessment domains for the national numeracy and literacy tests will have played a major part in determining the intended national curriculum in both English and Mathematics.

The relationship between Statements of Learning and assessment frameworks can, however, be seen as evolving so that in future years the Statements of Learning may influence the assessment frameworks. Discussion at the March 2006 AESOC meeting highlighted the importance of a clear and mutually informing relationship (PMRT, 2006). Three relational elements were identified:

- the broad correspondence between the curriculum domains and the assessment domains
- the connection that both the Statements of Learning and the progress maps have with state and territory curricula
- the influence the assessment domains, progress maps and standards for the NAP and national literacy and numeracy benchmarks has had on the Statements of Learning (p. 10).

Hattie’s first principle suggests that these relationships should have been established before, rather than after, the assessment instruments were developed.

7.5 Reporting student achievement

7.5.1 Numeracy and literacy

The first set of national standards were the literacy and numeracy benchmarks, which were defined as the critical levels of numeracy and literacy without which a student will have difficulty in making significant progress at school. The benchmarks were developed by curriculum experts and using data from existing state and territory tests as well as students’ work samples.

Recent documentation (PMRT, 2005b) and discussions with BEMU staff indicate that, while the primary purpose of the national numeracy and literacy tests is to allow accurate reporting against benchmarks, the assessment specifications in the draft frameworks have been broadened in response to the reporting requirements of state and territory governments and the enhancements sought by MCEETYA. These enhancements include the:
capacity to report on the performance of the most able to the least able, including benchmark achievement, and the creation of a single vertical scale with the capacity to map the growth in students’ achievements as they progress through school (PMRT, 2005b, p. 5).

The two aspects of this enhancement, describing the achievement of students on the actual test against a set of performance standards and indicating their position on a learning continuum, make different demands of the test and the reporting framework.

The distribution of item difficulties and the number of link items are discussed in the assessment frameworks for numeracy (PMRTc, 2005) and literacy (PMRTa, 2005). These documents contain recommendations that there should be a range of item difficulties with items distributed uniformly across the quartiles of expected student achievement, which is consistent with best practice.

In New South Wales and in most other states there is already some concern that, because of time constraints, their current tests do not contain sufficient difficult items to determine accurately the standards achieved by their high achieving students. Despite having items of varying difficulty there tends to be a ceiling effect because of a lack of very difficult items. Extension modules have been under consideration by the NSW EMSAD to address this issue.

The desire to determine accurately where all students are in their learning and to chart the progress of students through their time at school is far more difficult than describing the standard reached on a particular test. Complexity is increased in two aspects. We must first describe how student learning develops, what is termed the achievement continuum, and then to have assessment tasks at different points along this continuum. An example of what is required is contained in the 1996 National School English Literacy Survey (Masters & Forster, 1997), which describes in detail the construction of an achievement continuum for English literacy and the corresponding assessment tasks. Defining an achievement continuum is essential if we wish to report against developmental standards rather than performance standards related to a specific task but this is not an easy task: few exist and fewer have been based on research evidence.

The second step is to equate the various assessment tasks so that we can report student performance on this achievement continuum. Equating in this context, vertical equating, is normally achieved by the use of common or link items in adjacent tests. In the NSW Basic Skills Tests, for example, there are link items to equate Year 3 and Year 5 tests, and Year 5
and Year 7 tests so that it is possible to report student achievement in numeracy and literacy in years 3, 5 and 7 on the same scale. Currently, a common scale is used for reporting Year 3 and Year 5 results, but a different scale used for years 7 and 8.

It has long been recognised that vertical equating is far more difficult than horizontal equating (e.g. Newbould & Massey, 1979; Slinde & Linn, 1979), and for some time educational measurement researchers in the US (e.g. Hambelton, 1978) considered that valid vertical equating was not possible. Hungi (1997) provides a useful summary of the arguments, noting that several studies have indicated that vertical equating may not be appropriate regardless of which IRT models or CTT methods are used in equating (p. 180) because vertical tests may not satisfy all the necessary conditions for equating. However, despite the controversy, the Rasch model is extensively used to equate tests at different levels in order to measure student growth using link items.

The number and choice of link items is critical. PMRT documents recommend that there be at least 12 link items in adjacent tests to allow vertical equating of these tests, which is consistent with previous research findings (Hungi, 1997) and these items must be accessible to students at both levels. As the link items cannot be based on content or skills experienced only by students at the higher level, these items will tend to be the more difficult items for students at the lower level and the easier items for students at the higher level. Nevertheless there must be a range of achievement on these link items for students at both levels. Validity of the equating is a function of the robustness of the common scale with changing sets of linking items.

Item selection is more difficult in numeracy than literacy because of the hierarchical nature of mathematics: in Mathematics, difficulty tends to be associated with content so consequently the content of link items is restricted to the content of the lower level. In literacy, however, there is a greater emphasis on skills which are pertinent to both levels, with difficulty more dependent on the complexity of the context and text material rather than on the acquisition of new knowledge or skills. Link items are therefore less difficult to formulate.

As the gap between the levels increases, so does the difficulty of formulating link items and in New South Wales, where there is a two year gap between tests, formulation of link items is not easy. For the NAP Civics and Citizenship tests where there is a four year gap between testings, the problem is almost insurmountable. The link items cannot require Civics knowledge gained in the intervening years. Of necessity the items will be based on Year 6
Civics knowledge and one can then question the validity of the equating for the remainder of the Year 10 test. This is a more substantial question.

When a common scale is established for adjacent tests by vertical equating, it is usual to use the same mark or skill band to represent both a student’s performance on the actual test and where the student is situated on the learning continuum. Consequently a student’s progress along the learning continuum between two assessments can be assigned a numerical value.

This practice is used in New South Wales for the BST; a common scale is established for the Year 3 and the Year 5 tests using link items and a set of six skill bands used to represent progress along this common scale. For each test students are awarded a mark and a skill band, which represents both their performance on the test and their position on the learning continuum. Their growth or progress between years 3 and 5 is given by the difference in their marks for those years.

Using the same mark for two purposes raises questions of meaning. Is a Year 3 student who is placed in band 5, for example, at the same standard as a Year 5 student placed in the same band? Can the two students be regarded as comparable? If the Year 5 test is a more difficult version of the Year 3 test but based on the same assessment domain, this interpretation can be said to be valid. If, however, the assessment domains for the two tests are different the interpretation is problematic. In saying that the two students are comparable, at the same standard, we are assuming that if both students completed the same test, either Year 3 or Year 5 or an amalgam of the two tests, both students would have been placed in Band 5. This assumption is more likely to be true in literacy but is less likely to be true in mathematics for reasons given above. This is a technical issue which was raised by Petersen, Kolen and Hoover (1989) who suggested that students at different grade levels might not respond to the two tests on the same dimension. While Petersen et al (1989) suggest that if other assumptions that are necessary for valid equating are satisfied, the multidimensionality of the responses might not be an important issue, multi-dimensionality nevertheless raises a question of interpretation.

From this discussion we can conclude that, before a common scale is used for reporting, the learning continuum must be carefully defined so that substantive meaning can be given to the various skills bands. There is an obvious need for further research around the reliability and validity of the vertical equating process to be used for national tests: research on the robustness of vertical equating with different sets of link items and research on the meaning that can be given to the common scale. Without meaning, progress can be measured but has little educational value: we can say that something has changed but are not able to what has changed. It is the what that is of value for teachers and parents.
In a small study on student reports (Robertson, Cooney & Coutts, 2005), parents said that the most important information they wanted was how their child was performing against the appropriate standards, whether their child is keeping up, and whether their child had to struggle to achieve this standard. Data from the research undertaken for this review which was reported in Chapter 5 has confirmed this finding. While parents found the reporting of growth useful, some reported that they did not understand what the marks in the bands represented, nor did they understand the metric. It is hard to escape the conclusion that parents would prefer to have student reports show how their child has performed against a set of standards that describe the range of achievement on the test, rather than on a common scale which they do not fully understand.

On the other hand, principals have reported that both aspects, performance against performance standards and growth over time, are important. The first aspect is important to identify strengths and weaknesses in student performance, and the second aspect is important as it allows them to compare the growths of groups of students or to compare the average growth of their school against that of similar schools or the state. It is possible, however, to meet the preferences of both parents and teachers by presenting both pieces of information in the school report, provided meaning can be given to the common scale, but only the one aspect on the reports parents receive.

PMRT has indicated that performance on the numeracy and literacy tests will be reported in several ways. To satisfy the monitoring role for these tests, the percentage of students achieving the benchmarks, aggregated at state and territory level, will be reported to the Commonwealth Minister for Education, Science and Technology. Parents will be informed, via school reports, whether their child has performed above or below the benchmarks levels. States and territories will also receive this information.

At the next level, it is anticipated that student achievement will also be reported against a set of performance standards in such a way that progress can be monitored. It is unclear, at the time this report has been written, who will be responsible for defining the standards and reporting to parents, whether the national authority, state and territory authorities or school systems. This issue of Commonwealth/state and territory responsibilities will be discussed in detail in Chapter 8: what is important in this section is the nature of the information provided to different agencies.
For school improvement, schools require data that they can use for school planning so student achievement data reported against performance standards is essential, and this is the data that parents find most useful. While the growth data is useful, it is not essential and progress can be assessed by other means. Given the complexities surrounding vertical equating there is a strong argument for delaying implementation of common scale reporting for three years until further research, as indicated above, has been conducted. This issue will also be discussed further in the following chapter.

7.5.2 The National Assessment Program tests

The NAP tests are to monitor the achievement of Australian students in the agreed eight key learning areas by determining the proportion who achieve high standards of knowledge, skills and understanding through a comprehensive and balanced curriculum. Curriculum was discussed in a previous section in relation to the proposed Statements of Learning; this section will discuss standards.

When preparing the NAP tests, PMRT introduced the concept of reasonable and challenging standards (PMRT, 2005a, p. 4) and, at the time of writing this report, it is unclear how these standards will be used and how they will be determined, except that they will be derived from the Statements of Learning. These standards will differ from the benchmark standards which, as argued earlier, are more applicable to numeracy and literacy that underpin all Key Learning Areas.

In the earlier unsuccessful Statements and Profiles endeavour, the statements were collections of outcomes and the expected standard was that of achieving the outcomes. In the New South Wales syllabus documents, which are structured around outcomes, the expectation is that by the end of a two-year stage of their schooling, at least 80% of students should achieve the Stage outcomes. The figure of 80%, which was selected by the Board of Studies in the early nineties after protracted discussion, essentially specified the Stage standards. After the Eltis report (2003) on outcomes based teaching and learning, the Board of Studies mandated a reduced set of outcomes to be used for reporting for primary school children. Following the national reporting requirements in 2004 these outcome statements were replaced, in 2005, by Foundation Statements of Learning that set the curriculum standards and indicate what students are expected to achieve by the end of each stage.

The proficient standards for the NAP tests, except for PISA and TIMSS, will be set through a process similar to that used in setting the Performance Band Descriptors for the
NSW HSC. This process is based on professional judgements of what students should be able to do at a particular stage of their schooling and the range of actual achievement. The percentage of students achieving these proficient standards will be the KPMs for the areas assessed by the NAP (Table 2.1).

The difficulty with the current national process is that the NAP tests have been developed independently from the corresponding Statements of Learning, so the expected level of student achievement as specified in the Statements of Learning may not correspond to the proficiency level as determined on the basis of the NAP test.

7.5.3 Australian Certificate of Education

Although the proposed Australian Certificate of Education is not one of Key Performance Measures, it is nevertheless part of the overall national initiative. Masters argues that an ACE would offer the opportunity to take a national perspective and to use Australia-wide resources and talent to improve learning in the senior secondary school; and the opportunity to improve on what already exists and to rethink curricula for the future (Masters, 2006, p. 20).

There are three essential features in the proposed model: a national standards authority to set minimum requirements for the award, curriculum essentials to be established in key subject areas and common achievement standards set in these subjects. In addition, the report recommended that a national Key Capabilities Assessment (KCA) be undertaken by all students in Year 12 to assess a number of employability skills.

These recommendations have much in common with the other national initiatives: curriculum consistency, common standards and a national common test which emphasises reading, mathematical and ICT literacy, verbal and quantitative reasoning, and written English. There is, however, no benchmark concept and student achievement would be reported against standards on a five point (A – E) scale.

At the 2006 News Ltd Education Forum an argument was made that New South Wales, because of the 2001 HSC reforms, was well placed to evaluate the national proposal. While greater commonality of curriculum and standards were seen as desirable goals, it was argued that achieving these goals in a high-stakes environment would be difficult (Stanley, 2006).
An Australian Certificate of Education would not necessarily impact on the way the NSW UAI is calculated. The national Key Capabilities Assessment would not replace the UAI, as research shows that achievement-based selection ranks are better predictors for university than ability-based measures. Research indicates, however, that the inclusion of generic ability tests in a selection index does increase the predictive validity by a small amount, so the marks from the KCA could be included but that would be all. There is no incentive to use the Key Capabilities Assessment as a scaling test as state selection indices are already reported on a common scale. At best the proposed test would act as an audit of the equivalence of the state and territories indices.

Because Masters’ proposals are consistent with the national reforms for K-10, in any national/state negotiations the Australian Certificate of Education needs to be discussed in the broader context of the national reform agenda. Common curricula for Stage 6, for example, cannot be formulated without knowledge of the corresponding Statements of Learning for K-10. Similarly any set of common standards for Stage 6 cannot be formulated without knowledge of the common standards reporting framework for the earlier years. To have a national standards authority separate from a national agency which has responsibility for the national common tests would exacerbate the problems that have arisen with the current national initiatives where the different elements have not been considered as a whole.

7.6 Can the KPMs monitor progress towards the National Goals?

The foregoing analysis casts doubts on the ability of the current Key Performance Measures to adequately monitor the national goals because of the obvious lack of relationship between curriculum, NAP tests and standards.

The first national goal assumes that there is a common curriculum across the states and territories, a set of tests to assess the essential learnings and a set of common standards against which to assess student outcomes. There are difficulties with all these assumptions and requirements. First, a common curriculum is not achievable under the proposed national framework although there may be greater commonality between state and territory curricula if the proposed Statements of Learning are incorporated into local curricula. Second, at present NAP tests are proposed for only three of the eight areas and there appears to be no move to extend the tests to the remaining areas, and finally there are, at present, no common standards against which to monitor student performance in the NAP tests. TIMSS and PISA tests are valuable to benchmark Australian students against their overseas counterparts but it unlikely that their reporting standards will be the same as those of the other NAP tests.
To adequately monitor progress towards the national goals, the Statements of Learning and the assessment domains of the NAP tests must be aligned and a common set of standards subsequently developed. With the benefit of hindsight, the preferred sequence for the development of KPMs would have been curriculum (what is important), then assessment and standards. The extent to which the national tests can lead to improvements in teaching and learning is a separate question and will be addressed in the following section.

7.7 School and student improvement

As the findings from the Chapter 5 have demonstrated, school improvement is possible if and only if schools receive feedback of the type provided by states and territories in relation to their current numeracy and literacy tests. School and individual reports must be such that students at risk and curriculum areas for improvement can be identified, and support material on curriculum reform and pedagogy provided and made accessible to schools. Timely and appropriate feedback is the key.

When test data can be disaggregated only to system level as with PISA, TIMSS and the NAP tests, and on a three or four year cycle, can the data lead to school improvement? At individual school level, the answer is obviously no. However, if in the future systems receive reports similar to current school reports and are able to interrogate their data, it is possible to identify weakness in curriculum areas at system level. Schools within a system can then use this information, where relevant, to inform their planning.

7.8 Concerns from state and territory jurisdictions

During interviews with state and territory jurisdictions, several specific concerns about national testing emerged in addition to those mentioned earlier in this chapter.

7.8.1 Reporting

Currently states and territories report student achievement in their state-wide tests against their own standards and student reports are distributed by the state agency responsible for development and administration of the tests. The state agency may be the Department of Education and Training, as in New South Wales, or a statutory body such as the Curriculum and Assessment Agency in Victoria.
With regard to the national tests, examination of PMRT documents and discussion with staff from BEMU have indicated that the national agency responsible for test development and analysis will provide the Commonwealth Minister of Education with information limited to the percentage of students in each state who achieve the national standards with some amount of disaggregation of the data. At the time of writing this report, no firm decision has been made about the dissemination of information to schools and parents, although a preliminary scoping study has recommended that this role be the responsibility of relevant state agencies. It is clear from conversations with assessment staff in the various state jurisdictions that they would like to continue with their existing reporting practices in order to preserve continuity with existing trend data. A recent decision of PMRT (2006a), however, has determined that there will be break with the existing trend data, and a new series will commence with the introduction of the national tests.

For the states, the central issue is to receive disaggregated data at student level in a form that will permit them to report against their own standards. The minimum data required are item responses at student level together with item difficulties from which scales can be developed to rank students. Cut-scores can then be set to reflect specified standards. For states to report against their historical standards, some form of horizontal equating is required using information gleaned from the May 2006 trial. To maintain standards from year to year, even if states and territories elect to formulate new sets of reporting standards, the national agency will be required to use an equating procedure similar to that employed by EMSAD to equate its tests over time.

### 7.8.2 Teacher Involvement

In all states and territories, teachers are involved in the development of test items and in the marking of their tests. Staff in several jurisdictions stated that teacher involvement gives the schools a sense of ownership of the tests, which increases their value. They expressed their concern that if teacher involvement decreased there was the likelihood that schools would see the tests as less relevant to their teaching and learning program.

The importance of having teachers involved in the marking process cannot be underestimated, and reflects the perception about marking the School and Higher School Certificate examinations. Marking is seen as an important professional development activity which allows teachers to really understand what the standards mean. This is especially true for teachers in rural areas where the marking centres are highly valued. In one submission, corporate rather than on-line marking was supported because in their view the interaction
between markers was the key to good professional development. They argued that their teachers should be rotated through the centres to maximise the benefit to their schools.

7.8.3 Timing

The timing of the tests has been discussed extensively at meetings of PMRT and was raised as a concern by staff in state and territory jurisdictions. Their feelings can be captured by the following statement, *if the tests are just benchmark tests, it does not matter when they are given. Schools will receive little information that can be used to change pedagogy.* For school improvement to occur, results from national tests must arrive in schools in sufficient time to influence school planning and to implement intervention programs for students at risk. Schools were adamant that student and school reports, together with support material, need to be in schools during Term 3.

7.9 Commonwealth/state and territory responsibilities

Unresolved issues surrounding the national testing program include cost and resourcing, test and data ownership, reporting protocols and governance of a national agency. The recent preliminary scoping study commissioned by AESOC (PMRT, 2006) has examined some of these issues and made a number of recommendations about trialling and structure, among which are two dealing with the division of responsibilities between a national agency and the states and territories. The authors of the study argued that a national agency is necessary to ensure uniformity in the process through to scaling, equating and data analysis and national reporting. Subsequent reporting is seen to be the responsibility of states and territories. These two recommendations are in accord with views from state and territory jurisdictions. The second phase scoping study is to be undertaken from August and will report to MCEETYA in November on detailed arrangements for the implementation and governance for national testing.

The prime concern of the national agency is seen as delivering *high quality, independent, efficient assessment and reporting that will guarantee public confidence in the results.* To achieve this outcome, the preliminary scoping report argues that the agency should be independent of any organisation with an interest in the process, as either a purchaser or provider. While there is merit in the national agency’s role including the development of the Statements of Learning in order to have consistency between curriculum and testing, it is possible that its role could be restricted to a coordinating and contracting authority.
The composition of the proposed national authority and the extent of technical expertise in curriculum and testing areas that is required for this authority will be addressed in the second scoping study. There is a range of options, from having a non-technical authority with administrative oversight to a structure similar to the NSW Board of Studies. In the first option test development and the preliminary analyses would be outsourced, in contrast to the second where all test development would be carried out within the authority. Both extremes have their dangers. The dangers of having a national authority with little or no technical expertise relate to quality assurance aspects across all areas of responsibility but an authority similar in structure to existing state agencies would be costly and probably would not be acceptable to state and territory jurisdictions. An intermediate model, where there is sufficient technical and administrative expertise to ensure all the necessary quality assurance aspects, is to be preferred.

**Recommendation 6:**

*That the national agency which has responsibility for the national common tests has sufficient technical and administrative expertise to ensure quality assurance in all its roles.*

Of the issues that remain unresolved at the time of writing this report, perhaps the most important for New South Wales, concerns responsibility. Which state and territory agency will be responsible for reporting to parents and schools, and for providing schools with timely and appropriate feedback? In New South Wales there are two agencies, the Board of Studies and the Department of Education and Training with separate responsibilities, but other states and territories, have single curriculum and assessment statutory bodies with responsibility for all testing programs. This issue, in relation to New South Wales, will be discussed in the following chapter.

### 7.10 Implementation schedule

The implementation timetable is a matter of concern. Even before analysis of the May 2006 trial, questions were raised about the risks associated with further testing in 2007. PMRT (2006) has examined several options for 2007 and recommended that the second half of 2006 and then 2007 be devoted to refining the tests and reporting scales, and putting into place a model of operation to support the national testing regime. This decision to delay further testing has merit but the proposed timetable almost assumes that the 2006 trial testing will provide all the information needed to modify the tests and reporting scales.
The requirements in the Act, that the national common tests be conducted before 1 January 2008, cannot be met. Indeed, given the number of unresolved structural and governance issues to be resolved before any national agency can be set up and tenders called for test development and procurement of materials etc, it is difficult to see how high quality tests can be implemented even in May 2008. An implementation date of May 2009 would have provided adequate time to permit some additional trialling of items and for the development of reporting scales.

7.11 Discussion

Several conclusions have emerged from the analysis presented in this chapter.

Firstly, while each Key Performance Measure (KPM) provides some information about the extent to which a particular national goal is being achieved, the KPMs, as a group, do not provide a coherent overall statement of the health of Australian schools as envisaged by the Australian Government in its published documents. To achieve this goal, the national initiatives must be re-visited to achieve coherence between curriculum, assessment and reporting standards. Statements of Learning, which define both the range of content and skills that students should be given the opportunity to learn and the performance standard students will be expected to demonstrate for each key learning area, and have only just been formulated. Light sample National Assessment Program (NAP) tests, which are required for each key learning area, including English and Mathematics, with the reporting standards reflecting the “expected” standards specified in the corresponding Statements of Learning, would then be developed. Full cohort common national tests of literacy and numeracy would also be developed taking into account the Statements of Learning, but these would be reported against benchmark standards.

Secondly, it is important that states and territories continue to receive data in such a form that student and school reports can be constructed that will support teaching and learning in their schools.

Thirdly, states and territories need to continue to provide schools with appropriate and timely support related to curriculum and pedagogy. The importance of this cannot be underestimated if school improvement and higher student performance are to be achieved. Currently schools in each state and territory receive extensive feedback on individual student and school performance, with information given at the item level. Given that the test items, especially in New South Wales, are tightly linked to syllabus or curriculum outcomes schools can identify
areas of the curriculum in which their students are performing well or badly. Curriculum support material is generally available for schools to use to improve the teaching and learning in the areas where student performance is lower than what would be expected. To have improved educational outcomes the quality of the feedback schools receive must be at least as high as what is currently received from the NSW Department of Education and Training.

Envisaging a specific structure at the national level to ensure the required coherence between curriculum, assessment and reporting is difficult because of the absence of a decision about the roles for a national authority in relation to the common national tests. Given the political realities, it is likely that different national agencies will have oversight for the Statements of Learning and the national tests, with the agency responsible for these tests being a coordinator and contractor for the tests.

This scenario may have two unintended consequences unless appropriate steps are taken. The first is that there can be no guarantee of the quality of the tests and associated analyses unless the national agency has the requisite technical and administrative expertise. The second is that the lack of coherence between Statements of Learning and national tests will continue unless an agency such as the Performance Measurement and Reporting Taskforce (PMRT) is charged with the responsibility of achieving synergy between curriculum, assessment and reporting. The importance of this monitoring role cannot be overemphasised: without it there can be no guarantee that the KPMs will adequately measure the health of Australian schools as required and that the results from national tests can be used for school improvement.

Two recommendations, which are related to function rather than structure, emerge from the discussion of the national initiatives. Any recommendation about structure is beyond the terms of reference of this review and premature because of the lack of decisions about national/state responsibilities in relation to the common tests. The recommendations which follow about function are those which derive from best practice in assessment.

**Recommendation 7:**

*That implementation of the national curriculum, assessment and reporting agenda be monitored closely to ensure coherence of curriculum, assessment and reporting.*
Recommendation 8:

That, in allocating responsibilities between any national agency and the state, there needs to be a coherent responsibility for these elements of the national testing program:

- the development of testing programs for each of the eight Key Learning Areas identified in the Adelaide Declaration, and the national common tests of numeracy and literacy
- development of a common assessment instrument in each domain to be assessed
- management of marking processes to ensure consistency and comparability across the nation in the application of marking guides
- liaison with state and territory in all aspects of tests development, administration and marking
- scaling, equating and data analysis of test results
- national reporting that arises from the assessment program and required for the Australian National Report on Schooling
- provision of information and data to state and territory jurisdictions to allow them to prepare diagnostic and support material to distribute to systems and schools before the commencement of Term 4
- procurement arrangements for the delivery of services agreed to be undertaken nationally but outsourced, including management and expenditure of financial and other resources
- risk management of all elements of the national program

These recommendations are ambitious, requiring financial and human resources over and above what is required for the current national agenda. They do, however, provide a coherent framework for monitoring the national goals and to support schools in teaching and learning. Without a coherent framework we are unlikely to see quality outcomes in terms of school improvement. The additional finance and time required can be seen as an investment for the future.

The proposed Australian Certificate of Education (ACE) has not been included in these recommendations because no firm decisions have been announced whether the recommendations from the Masters Report will be implemented. If the ACE becomes a reality, it is desirable that oversight of the ACE be part of the role of the national agency with responsibility for the other national tests to build on the commonality of purpose between the two testing programs.
The next chapter analyses the NSW assessment program to identify what are the necessary outcomes for accountability and school improvement purposes and to propose an appropriate model.
Chapter 8  AN ASSESSMENT PROGRAM FOR NEW SOUTH WALES SCHOOLS

8.1 Introduction

In the previous chapter the proposed national assessment program was evaluated against the expected outcomes for the program and was found wanting. This chapter starts with the question, *what do we want from a state assessment program in New South Wales?*, then presents an analysis of the current assessment program and concludes with a proposed assessment framework.

8.2 What do we want from a state assessment program?

A state assessment program has four broad roles: diagnosing, monitoring, selecting and credentialing (Table 8.1). Previous chapters have ignored the selecting and credentialing roles and the role of school-based assessment, not because they are unimportant but because they were not relevant in the context of national testing. These aspects will be discussed in this chapter.

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosing</td>
<td><em>for supporting teaching and learning by identifying students at risk, curriculum areas for improvement, teaching strategies for improvement for supporting whole-school planning</em></td>
</tr>
<tr>
<td>Monitoring</td>
<td><em>for the Minister to monitor the level of achievement in the Key Learning Areas in all schools in NSW for school systems to monitor the level of achievement in the Key Learning Areas in their schools for schools to monitor their level of achievement in the Key Learning Areas</em></td>
</tr>
<tr>
<td>Selecting</td>
<td><em>to be used by schools and systems for selection purposes to be used by tertiary, TAFE and other higher education providers for selection purposes.</em></td>
</tr>
<tr>
<td>Credentialing</td>
<td><em>to be as the basis for exit credentials</em></td>
</tr>
</tbody>
</table>
The suite of NSW tests administered by the Board of Studies and the Department of Education and Training has been described in Chapter 3 and Table 8.2 shows how each test contributes to the four broad roles described above.

Table 8.2 Contribution of NSW tests to assessment roles

<table>
<thead>
<tr>
<th>Role</th>
<th>BST/ELLA/SNAP</th>
<th>School Certificate</th>
<th>Higher School Certificate</th>
<th>ESSA</th>
<th>Selective High Schools Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosing</td>
<td>*</td>
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<td>Monitoring</td>
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<td>Credentialing</td>
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<td>Selecting</td>
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Data presented in Chapter 5 has demonstrated that the BST/ELLA/SNAP tests have a diagnostic role at both student and school levels in addition to their accountability role in monitoring the academic achievement of government schools in numeracy and literacy. It can be assumed that ESSA would have a similar role in relation to Science. In contrast, the School Certificate serves as an exit credential for the students who leave school before Year 12 as well as providing data to monitor student and school performance at the end of Stage 5. In addition to these roles, Higher School Certificate results are used as the basis of selection for tertiary institutions.

Tests administered by DET are restricted to numeracy, literacy and science. The School Certificate examination is restricted to English literacy, the thinking mathematically strand in Mathematics, Australian History and Australian Geography and Civics. Until the end of Stage 6, when courses from all KLAs are examined in the Higher School Certificate, other areas of the curriculum not specified above are assessed by school-based tasks. Consequently, the current NSW assessment program can be seen as an amalgam of external tests and school-based assessment. Introduction of national testing will not change the balance between school-based assessment and external tests to any great extent; what may change is the pattern of external tests.

In outlining an assessment framework for New South Wales, we start with the following proposition:
that the NSW assessment program, which includes both formal testing and school-based assessment, will provide high quality data to:

- report on student achievement to all relevant stakeholders, including parents
- support teaching and learning in schools
- permit the monitoring of schools at state and system levels
- be the basis of exit certificates at various stages of schooling
- assist selection for various post-school destinations

With current national initiatives, the formal tests will comprise both national and state tests so responsibility for the program will lie jointly with national and state educational authorities, schools and systems. National and state educational authorities will therefore have responsibility for developing and administering high quality tests with the essential qualities described earlier in this report. State authorities will have particular responsibility for providing high quality student and school reports, and other support to all schools that will lead to improved teaching and learning and improved student outcomes. Schools will have responsibility for implementing their own high quality assessment programs, and then using their own assessment data together with data from national and state tests in order to improve their teaching and learning strategies. School systems will have particular responsibility for providing appropriate and timely professional learning and other support for teachers in their schools.

8.3 The NSW testing program

This section presents an analysis of the impact of the national testing program on the elements of the current NSW testing program.

8.3.1 BST, ELLA and SNAP

Although the current state tests of numeracy and literacy were valued by teachers and parents, all respondents saw them as redundant following implementation of the national common tests, assuming that these national common tests would serve the same roles as the current NSW tests. Some concern has been expressed about the absence of a separate language test and, at the time of writing this report, PMRT has yet to decide on this matter. The current timetable has the national common tests being introduced in 2008, which would mean that the BST, ELLA and SNAP would be offered for the last time in 2007.
When interviewed in 2005, staff in one state jurisdiction said that they had considered maintaining their own tests for years 4, 6 and 8 but their final decision was the same as all other jurisdictions – there was no need for local tests. This decision was based on the premises that national common tests will be high quality tests which are similar in content to their local tests, that persistence with their local tests would add an intolerable testing load on students and schools, and that the additional benefit of local tests would not be commensurate with the financial cost.

The prime advantage of the national common tests is that technical difficulties associated with the current method of benchmarking will be removed. However, difficulties in interpreting state and territory differences are likely to remain, with state differences being interpreted as resulting from different state and territory curricula rather than real differences in student performance.

One disadvantage of the national common tests is that, within NSW, the content and skills assessed by these tests will not be as closely aligned to the local curriculum as are the local tests. This lack of alignment will not affect the analysis of student performance on the actual tests, and diagnostic material associated with student performance on test items could be prepared by a national or state agency. Preparation of curriculum support material of the form currently provided to those NSW schools that use BST, ELLA and SNAP require, however, that test items and strands be linked to NSW syllabus outcomes. This linking process would require an additional step to be completed by NSW authorities after test development rather than before and during test development as at present, which raises the question of timing. NSW schools have argued that, to be useful for school planning and improvements in pedagogy, schools need to receive their support material during Term 3 rather than Term 4. It is therefore essential that the timetable associated with the national tests permits this goal to be achieved.

A decision on whether the national literacy tests should contain specific language items cannot be made until after evaluation of the May 2006 trial. Language items were included for this trial and PMRT has not yet decided whether these items will be included in subsequent tests. Despite the regret expressed by NSW testing authorities a strong case has been made in Chapter 7 for not having additional items because of their impact on other items in the tests which may then affect benchmark decisions, and because of the increased testing load, especially on younger children. The fundamental question is whether the benefits of having a separate language scale outweigh the costs: technical, financial and human. Until the May 2006 trial is evaluated this is an open question.
8.3.2 ESSA

New South Wales has introduced a Year 8 Science test, ESSA, which has been trialled in 2005 and 2006. This test, which has been described in Chapter 3, is based on the Stage 4 NSW Science syllabus and assesses both skills and content employing a SOLO taxonomy. As such, it has a different emphasis to the NAP Year Science literacy test and the PISA Science literacy test. The question is whether this test should be retained or discarded.

ESSA was introduced to monitor science achievement of Year 8 students, because of a concern with student performance in Science, and to prepare students for subsequent PISA and TIMSS tests. While a Year 8 test would assist school planning for Stage 5, some respondents argued that this is too late and that a better time to monitor student achievement would be early in Year 7 against Stage 3 outcomes. Data from this test could then, like data from the current ELLA and SNAP tests, assist school planning for the first year of secondary schooling.

Because there is a great deal of flexibility in the actual content in science in the K-6 curriculum the NAP Year 6 Science literacy test would provide a better indicator of student achievement in Science at the end of Stage 3. A disadvantage of the proposed national test is that school-based data will not be available, with the lowest level of aggregation being at state level so individual schools would not therefore be able to identify specific areas for improvement. State data would, however, indicate performance curriculum areas for improvement across a state; areas which individual schools could examine more closely in light of data from their own assessment programs.

In light of the increased testing load because of the literacy and numeracy tests in both years 7 and 9, it is hard to justify the continuance of the assessment of Science through the Year 8 Essential Secondary Science Assessment (ESSA) test in its current form. There was little support for ESSA from the secondary teachers who were interviewed; they stated that student and school performance were not monitored in Year 8 for any other KLA, and the Science test gives this subject a status that is not afforded to other areas of the curriculum.

This is not necessarily a criticism of the test itself but it is difficult to see a specific role for the test. School improvement would be better served by a test at the end of Stage 3 and this could, in broad terms, be achieved through data from the NAP Year 6 Science literacy test. Student and school performance are not monitored in Year 8 for any other area of the curriculum, and a Year 8 Science test would give the subject a status that is not afforded to
other Key Learning Areas. The argument that this test would help improve student performance in subsequent light sample international tests is not sufficient reason for retaining the test. Items developed for the ESSA test could, however, be made available to schools through the proposed assessment warehouse as exemplars for assessing Science in Year 8.

**Recommendation 9:**
*That the ESSA test be discontinued from the end of 2007.*

### 8.3.3 Computer skills tests

Two Computer Skills tests have been proposed: a Year 6 test administered by DET and a Year 10 test administered by the Board of Studies. The Year 6 test has been trialled but not proceeded with, and the Year 10 test will be administered for the first time in 2006 as part of the School Certificate examinations.

There is considerable overlap between the two tests and it is hard to justify that both should proceed. It can be argued that the importance of the Computer Skills tests is to determine whether or not students can demonstrate a set of ICT competencies, rather than determining what standard they have reached. Given the increasing ICT skills of younger students, an alternative to having a test at a fixed point is to have an on-line test which individual students can access at a time of their choosing, and access the test until they can demonstrate the required competencies. The remaining issue is which agency, the DET or the Board of Studies, should be responsible for the test. Because test should be available to all students, the Board of Studies is the appropriate agency.

Allowing students to satisfy the Year 10 Computer Skills requirement at any time during Stages 4 and 5 is offering them the same provision for the School Certificate that is offered to them in relation to the Higher School Certificate, that they can complete courses ahead of their cohort.

### 8.3.3 The School Certificate

New South Wales is the only state to have formal examinations at the end of Year 10, other states having moved, in the 1970s, to credentials awarded on the basis of school-based assessment. As noted in Chapter 3, the NSW School Certificate has passed through several
phases and for some time before 1999 was awarded on the basis of school assessments, with School Certificate Reference Tests in English, Mathematics and Science used to determine the distribution of grades awarded by individual schools in those three subjects. Achievement in the remaining School Certificate courses was reported against standards on the basis of school-based assessment.

In his review of the NSW Higher School Certificate, McGaw (1997, p. 79), reported that submissions received showed:

*widespread dissatisfaction with the current School Certificate as it no longer served as an exit credential for many students. The great majority of year 10 students now proceed to year 11. In addition, as students did not receive their own results on the Reference Tests, they perceived the tests as being of little value.*

Despite McGaw’s recommendation that the School Certificate be abolished, the NSW Government at that time argued that this credential should be strengthened by *taking steps to enhance the form, purpose and outcomes of this stage of schooling* (Aquilina, 1997, p. 31). This decision was based on the assumption that external curriculum-based examinations in which students receive their own results would return significance and purpose to Year 10 studies, which in turn would lead to improved student achievement in Stage 5. Examinations were developed in English Literacy, Mathematics, Science, Australian History and Civics, and Australian Geography with student achievement in these examinations reported against standards. Achievement in all courses is reported by grades, using a standards-referenced approach, determined by school-based assessments.

While the School Certificate was not formally part of this review, groups and individuals took the opportunity to make representations about the Year 10 examinations and the credential itself. Most respondents argued that the School Certificate was largely irrelevant as an exit credential because the end of Year 10 was not a transition point for many students. While agreeing with this argument, other respondents argued that a School Certificate credential was nevertheless required as an exit credential for students who did not complete Year 12. They argued that as the wider community views Year 10 as the end of compulsory schooling, the end of Stage 5 is the appropriate place for an exit certificate. Abolition of the credential, in their view, would disadvantage those students who left school at the end of Year 10 and commenced a trade course at TAFE. Given that approximately 20% of the Year 10 cohort does not complete Year 12, this argument has some merit.
Data collected in this study showed that the problems associated with term 4 of Year 10 that McGaw (1997) described in his report are still evident. Some principals argued that retention of an exit credential, even without the formal examinations, emphasised that the end of Year 10 was a transition point which, of itself, made the school environment difficult. When final assessments were completed, students felt that they had completed all the requirements for the award of the credential except for the attendance requirement. As Year 11 work could not be commenced, some students became unmotivated, attendance therefore became spasmodic and some teachers found it difficult to maintain a learning culture in their classrooms.

Perceptions of the value of the Year 10 examinations were, in part, linked to perceptions about the School Certificate credential itself. Respondents argued that because the credential was regarded by many students as irrelevant, students then saw the examinations as low-stakes which did not warrant the same attention as other examinations such as the Higher School Certificate. Evidence presented through submissions and interviews was that the Year 10 examinations were also not consistent with the assessment principles enunciated in the Quality Teaching Framework. Except for one principal who saw the examinations as providing an incentive for his Year 10 students and a good preparation for the Higher School Certificate examinations, and for another who saw the examinations as providing base-line data for value-added analyses, there was no support for the examinations themselves.

Some respondents asserted that the examinations were limited in scope and type, and did not provide information about student performance that could not be gained through school-based assessment. The English examination, for example, emphasises literacy skills rather than specific content. Because there is one examination in Mathematics, which has a differentiated curriculum with three strands, the content of the Mathematics test is restricted to the content of the lowest level syllabus. The test itself assesses just the thinking mathematically strand of the syllabus. As a result, the grades awarded on the basis of these two examinations do not reflect student achievement across the full range of Stage 5 outcomes in these subjects. This is left to grades awarded on the basis of school-based assessment.

Teachers argued that schools have been allocating grades to students to indicate their standard of achievement in Year 10 courses since 1991. Grades (A to E) have been awarded by deciding which of five descriptions of performance best matched the students’ achievement in a course. These descriptions of performance specific to each course, known as Course Performance Descriptors, were based on a set of generic statements of performance for each grade level referred to as the General Performance Descriptors. Respondents therefore argued that they were reporting against published standards which had been illustrated by samples of
student work, and that their grading, based on school-based assessments, was reliable and consistent. Support for the latter assertion is provided by the temporal stability of the School Certificate grades.

The introduction of national numeracy and literacy examinations in Year 9 was seen by the majority of respondents as an additional reason for not continuing with the Year 10 examinations in these areas. Their perception was that the current Year 10 English and Mathematics examinations would not provide additional data about the numeracy and literacy skills of students.

Criticism has also been levelled at the Year 10 examinations in Australian History and Australian Geography and Civics, and the courses themselves. The courses were perceived as having too great an emphasis on content and insufficient emphasis on skills development. The examinations were criticised for their structure and what was perceived as a heavy reliance on multiple-choice items. Some of the criticism, that multiple-choice items only assessed lower-order cognitive skills, was perhaps unwarranted and reflected a general perception about these types of items rather than a view of the specific examinations. In terms of Science, the early Year 10 examinations were themselves criticised because of the time allocation in comparison to English and Mathematics, and recent changes have been welcomed.

Two sets of issues have emerged in this discussion: those concerned with the Year 10 examinations and those concerned with the credential itself. For clarity, these two issues will now be discussed separately.

**The Year 10 examinations**

What were the perceived benefits arising from abolishing the formal Year 10 examinations? For those respondents who were opposed to any and all external examinations, abolition was sufficient in itself. Their argument was that all mass testing should be abolished and all grading based on authentic school-based assessment. Others argued that the cost of the examinations far outweighed their benefit; that abolition would release money that could be spent supporting teachers in their classrooms. A third group made the case that the abolition of the formal examinations, especially those in Australian History, Australian Geography and Civics examinations, would allow schools more flexibility in their programming.

Currently, 100 hours of Australian History and Civics and 100 hours of Australian Geography are mandated for all students and, prior to the modifications to the School Certificate in 1998, were normally taught in Stage 4. The introduction of the examinations in these areas resulted
in the mandated hours being completed in Stage 5. The submission from one of the professional associations, which was supported by other respondents, argued that this shift from Stage 4 to Stage 5 caused a reduction in the number and range of electives offered in their schools. Removal of the examination, they argued, would permit schools to teach the mandated hours at either Stage 4 or Stage 5, whichever best suited the school. Their argument was not to downgrade the teaching of Australian History, Australian Geography and Civics, but was about flexibility of curriculum programming.

What are the perceived disadvantages of not having formal examinations at the end of Year 10? Only two have been identified: preparation for the HSC and providing data for value-added analyses. However, most schools have formal examinations during Stage 6 that would provide students with necessary experience, and data from the national Year 9 tests will provide suitable data for value-added analyses.

Given the lack of support for the Year 10 examinations and the nature of the examinations themselves it is difficult to argue that these examinations should be retained following introduction of the national common tests in Year 9. The proposal that the external Year 10 examinations should be abolished is not to be interpreted as opposition to formal examinations per se, the benefits of which have been discussed in earlier chapters. It is recognised that the formal examinations in Year 10 served a useful purpose when first introduced, but changing circumstances have made them largely irrelevant. Introduction of the common national tests of literacy and numeracy in Year 9 will make the English literacy and Mathematics examinations largely redundant and data from the Board of Studies demonstrate that schools can reliably report student achievement against published standards.

**The School Certificate credential**

Any recommendation about the School Certificate credential itself is outside the scope of this review. Nevertheless strong arguments have been made both for its retention and abolition, and there is merit in both sets of arguments.

In response to the question what would happen if there were no School Certificate, one principal made an interesting observation: There would be no transition, we would have a 7-12 continuum. Her argument was that a black hole existed at the end of Year 10 simply because there was a transition; remove the transition and the black hole would disappear, and teaching would continue until the end of term 4. Her argument was supported by other principals. Several respondents argued for commencing Stage 6 at the start of term 4 but, as McGaw (1997) argued, such a move raises questions of equity, impacts on school
organisation in earlier years, and raises questions of managing students who are not continuing to Stage 5.

A similar dilemma faced McGaw (1997) in relation to the Tertiary Entrance Rank, which preceded the UAI. The question was who should have access to the TER and opinion was very divided. His solution, that the TER should be given only to those students who asked for it, was based on the premise that the TER was only relevant to those students who were seeking a university place. The same argument could be made in relation to the School Certificate that an exit credential is only required when a student leaves school and is not relevant until that time. If this argument is accepted, the School Certificate credential is not required for all students at the end of Year 10 and could be replaced by a different exit credential which is given at the point of leaving school. There are several possible options.

In 1987 the NSW Board of Secondary Education examined the proposition that the School Certificate should be replaced by a Certificate of Secondary Education to be issued at the point at which a student left school. At this time School Certificate grades were awarded on the basis of school assessment tasks, moderated by a set of reference tests. The Certificate of Secondary Education, which was to be issued by the Board of Secondary School Studies, was to contain a cumulative record of the student’s results from Year 9, and the Higher School Certificate was to be retained.

Such a model could be adapted to current circumstances and is attractive because of the cumulative record that would be provided to students. The results from the Year 9 national tests would be included in this record, and students who leave school at the end of Year 11 would also receive an exit certificate which included their Year 11 results. Currently Year 9 students do not receive any formal certification and students leaving at the end of Year 11 receive only their School Certificate. The main argument raised against this model is that, by making a formal exit certificate available at the end of Year 9, students may be encouraged to leave school at that time rather than proceeding to Year 10 and beyond. If this were seen as a serious flaw, the model could be modified so that the certificate is awarded from the end of Year 10.

To meet the argument that any formal exit certificate indicates a possible transition, a variant of the model would be to issue a formal Record of Achievement, rather than a certificate, at the point at which a student left school. Whether this Record is issued by the school or by the Board of Studies, or by the school on behalf of the Board of Studies is an administrative matter.
Several submissions stated that abolition of the School Certificate would provide an opportunity for the Board of Studies to review the current requirements for award of the credential. Their desire was to have greater flexibility in curriculum offerings and in school structure in Stages 4 and 5. Several principals of government schools spoke of the current lack of flexibility and stated that it was inequitable that government schools had more mandated hours than non-government schools. This argument, covering curriculum and structural matters, is beyond the scope of this review but if the School Certificate were to be modified or replaced, there would be the opportunity to examine the structures of Stages 4 and 5 in more detail.

It is not possible make a firm recommendation about the School Certificate unless the credential’s purpose is first clarified. When introduced in 1965, the School Certificate marked the end of the first 11 years of school and served as an exit credential for the majority of students who did not complete the final two years of school. These last two years of schooling, were at that time, seen as preparation for university. Since that time the exit certificate role has diminished as the Year 12 participation rate has increased, and the question now to be addressed is whether a certificate marking the completion of the first 11 years of school is still required. The following recommendation has been framed to allow this question to be addressed.

**Recommendation 10:**

- *that the role of the School Certificate as an exit credential be reviewed in the first half of 2007, with consideration given to a credential being presented at the time at which a student leaves school and that contains a cumulative record of achievement*

- *that the review include consideration of the role of the current Year 10 examinations.*

8.3.5 The Higher School Certificate

**General considerations**

The national common tests in numeracy and literacy tests will not have a direct impact on the NSW Higher School Certificate. Implementation of an Australian Certificate of Education would, however, have an effect through incorporation of defined *curriculum essentials* (Masters, 2006, p. v) into the syllabus documents of nominated subjects and the imposition of common reporting standards in those subjects, but these will not occur in the short-term. A major impact is, however, likely to occur if the Key Capabilities Assessment (KCA) were to be implemented.
The purpose of the KCA is to provide information about several employability skills including reading, mathematical and ICT literacy, written English, and verbal and quantitative reasoning. If Masters’ suggestion that the KCA be used by universities as an additional measure for selection purposes was accepted, the Year 12 curriculum as it is taught would change. At the very least, the assessment load which school principals already perceive as too heavy, would increase and whether the increase in the predictive validity of the UAI would be sufficient to warrant this additional Year 12 testing is problematic. There are, however, other options for the KCA, including moving the test to Year 11 where it would have less effect on the school curriculum and also provide an additional formal grade for students who leave school in Year 11. Another option would be to provide the test twice a year and allow students to complete it at a time of their choosing, which is the model used in the US for the Scholastic Aptitude Test. This option is, however, expensive and does not sit comfortably with the structure of Year 12 in NSW schools.

The NSW HSC reforms have been in place for five years so it is timely to review what has been accomplished and to make modifications if necessary. As with the other state-wide tests, acceptance of the “new” HSC is a result of the amount of pre-2001 consultation and the high quality support material provided to schools. Reporting against standards required a major shift in practice in schools and acceptance of the change has, in part, been due to the provision of standards packages for the 2001 and 2002 examinations which contained samples of student work. These student samples have helped teachers understand the written standards.

The written standards were, of necessity, based on pre-2001 syllabus documents and student performance on examinations based on these syllabuses, and were termed “draft performance bands”. Given the time that has elapsed since their introduction, there is a strong argument that these published standards should be evaluated against current syllabus documents and current examinations, and to initiate research to determine if there has been a drift in the standards. A new set of standards packages should be made available after the review, and new packages should be routinely made available on a four year cycle. These proposals have obvious implications for funding.

**Recommendation 11:**
That the HSC Performance Band Descriptors used to report student achievement be evaluated against current syllabus outcomes and the range of student achievement in HSC examinations since 2001.
Concurrent with the introduction of standards reporting in the NSW HSC in 2001 was the re-introduction of the concept of “pass”, which was determined to be at the boundary of performance bands 1 and 2 and given an HSC mark of 50. There was considerable debate at the time as what would constitute a “pass”, whether it was what you might expect a well-prepared student to achieve or a minimum performance that would be consistent with having completed the requirements of the course. The second option was adopted, so that a pass standard reflects, in essence, a benchmark standard rather than a proficient standard. A consequence of this decision was that, in most courses, fewer than 10% of students are in Performance Band 1 and have HSC marks less than 50.

In a standards framework, marks are of secondary importance: what is important is the standard achieved, and HSC marks indicate only the relative position of a student in a Performance Band. Nevertheless the pattern of marks awarded in HSC courses has caused considerable debate in schools, with some teachers regarding the lower HSC marks as being inflated in comparison with marks awarded by teachers on school-based assessment tasks and tests. Their argument is that some students then gain an inflated view of their academic achievement because they focus on the marks rather than the standards. This concern may dissipate with time as the wider community becomes more familiar with standards, but given the move towards a common reporting framework for K-10 it is opportune to look again at the reporting of HSC achievement. This is not to suggest a move away from standards but to examine the range of marks allocated to these standards.

**Recommendation 12:**

*That the range of marks awarded to the HSC Performance Bands be reviewed in light of the national reporting requirements regarding standards across K – 10.*

Another issue, which is outside the terms of reference of this review, concerns the award of the Higher School Certificate itself. Eligibility for award of the credential is in terms of a minimum number of units satisfactorily completed in Years 11 and 12. *Satisfactory completion* of a course requires that at least 50% of the school assessment tasks have been submitted and school attendance has been satisfactory. There are no requirements that students should have achieved a minimum standard. Students can be awarded the credential on the basis of five courses completed without demonstrating even the minimum “pass” standard (Band 2) in any course. While this has been the case for many years, there is now the opportunity to re-assess this policy.
Recommendation 13:

*That the conditions for the award of the HSC credential be reviewed, taking into consideration whether a minimum level of performance is required for award of the credential.*

8.3.6 Selective High Schools Test

The Selective High Schools test is used to select students for the NSW selective high schools. ACER has the responsibility for constructing and marking the test, and EMSAD has the responsibility for administering the tests and the selection process. Any series of national tests will not impinge on this test.

8.3.7 Summary

The above recommendations are based on the premise that the quality of the national common tests and the information provided to schools will not be less than the current state-wide tests they are replacing. A reduction in the amount of formal testing will have an impact on the operations of both the Board of Studies and the DET. It also has implications for schools and increases the importance of school-based assessment both for student and school and student improvement.

8.4 School-based assessment

School-based assessment is central to NSW’s assessment program and is emphasised in the Quality Teaching Framework. The attributes of good school-based assessment are the same as those for tests: a close relationship to what is taught, consistency with pedagogy and appropriate feedback.

In response to the general questions on assessment, most respondents answered *time – there is too much assessment for the time available, particularly for Year 12*. Most respondents then spoke of the need to have assistance with assessing across KLAs. Teachers valued the Quality Teaching Framework’s assessment module, the resources available from the Board of Studies’ *Assessment Resource Centre* and some had seen the Curriculum Corporation’s *Assessment for Learning* examples. What many teachers wanted was examples of good assessment tasks across the curriculum.
New South Wales has the opportunity to meet this request, by building on existing resources. In its submission, the Educational Measurement and School Accountability Directorate outlined the proposed development of an Assessment Item Databank, based on approximately 5,000 used test items and an additional 4,000 trialed but not published items from the BST, ELLA and SNAP tests. The databank would enable a classroom teacher to tailor a test with specific objectives, for example the use of punctuation, for their class. In this way EMSAD argues that the development and control of testing will be returned to the local level. Future proposed embellishments include computer adaptive testing. EMSAD sees their Assessment Item Databank as addressing many of the strategies recommended in the NSW Education and Training 2005 Priority Statement.

The NSW Board of Studies has a similar cache of test items which are made available to schools, and through its Assessment Resource Centre is making available examples of student work to illustrate the A to E grades. Standards packages are available for selected years of the HSC and SC, and students can access online multiple-choice tests in a selection of courses. Additional resources on the HSC are provided through reports from the HSC marking centres.

These two data sources, which currently cover literacy and numeracy at Stages 3 to 5, and all KLAs in Stage 6, provide a good foundation on which to build an assessment warehouse. The purpose of the warehouse is to support assessment for learning in schools through the integration of assessment and pedagogy by providing examples of best practice of how assessment can be built into the teaching and learning cycle. The warehouse would include resources and assessment tasks for outcomes that are not readily assessed by formal tests, for all KLAs across all Stages.

There are different models for an assessment warehouse: using only existing test material as at present or having assessment staff from DET and the Board of Studies develop further assessment tasks and inviting classroom teachers to contribute examples of good resources. Provided appropriate quality checks were implemented, incorporation of teacher material has merit as it recognizes the expertise of teachers and gives them some degree of ownership. Ownership of tests was seen, by staff in most jurisdictions, to be an important element in the acceptance of state-wide tests.

The provision of professional learning in assessment was also seen by teachers as an important issue. Three elements were identified: developing assessment tasks that are integrated in the teaching and learning cycle, knowing how to provide appropriate feedback to students and how to use data from formal tests and their own assessment tasks for student and
school improvement.

Two recommendations come from this section: firstly that an assessment warehouse be developed from existing items held by the DET and Board of Studies to include resources and examples of best assessment practice across all subject areas across all Stages, and that these resources be available to all schools; and secondly, that professional learning programs be developed to increase the capacity for school-based assessment to be used to improve teaching and learning. These professional learning activities would be linked to similar programs in curriculum and pedagogy.

**Recommendation 14:**
*That an assessment warehouse be established to provide resources and examples of best practice in assessment across all Key Learning Areas and all Stages.*

**Recommendation 15:**
*That appropriate professional learning programs be developed to increase teachers’ use of school-based and external test-based assessment to improve their teaching and learning strategies.*

An important issue is where such a warehouse should be located and which agency has responsibility for it. This issue will be discussed in a Section 8.7.

### 8.5 Reporting

With the introduction of common reporting requirements for all schools in the *Schools Assistance Act 2004*, New South Wales has introduced a common template for government schools and a set of broad definitions and equivalent word descriptors for the A to E grades. These broad definitions (Table 8.1) were formulated by a cross-sectoral committee comprising representatives from the DET, the Board of Studies, the Association of Independent Schools and the Catholic Education Commission, and the NSW Board of Studies is preparing samples of student work to illustrate these standards.
Table 8.3  Common grade descriptors

<table>
<thead>
<tr>
<th>Grade</th>
<th>Or Word</th>
<th>Common Grade Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Outstanding</td>
<td>The student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations.</td>
</tr>
<tr>
<td>B</td>
<td>High</td>
<td>The student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations.</td>
</tr>
<tr>
<td>C</td>
<td>Sound</td>
<td>The student has a sound knowledge and understanding of the main areas of content and has achieved an adequate level of competence in the processes and skills.</td>
</tr>
<tr>
<td>D</td>
<td>Basic</td>
<td>The student has a basic knowledge and understanding of the content and has achieved a limited level of competence in the processes and skills</td>
</tr>
<tr>
<td>E</td>
<td>Limited</td>
<td>The student has an elementary knowledge and understanding in few areas of the content and has achieved very limited competence in some of the processes and skills</td>
</tr>
</tbody>
</table>

With the introduction of national common tests in year 3, 5, 7 and 9, and the possible introduction of a national Key Capabilities Assessment test in Year 12 to supplement existing exit credentials, there is now the opportunity to develop a common framework for reporting student achievement across all years of schooling in New South Wales.

At the national level two different standards have been proposed to report student achievement in the national testing program, benchmark and proficient. A third standard, high, was mentioned in the Adelaide Declaration but not used for reporting, and the terms reasonable and challenging have been used in relation to the Statements of Learning. A recent enhancement required by MCEETYA was that the national reporting frameworks will have the capacity to report on the performance of the most able to the least able (PMRT, 2005a). The fact that the reporting framework has the capacity to report against high standards does not, however, necessarily imply that high standards will actually be used for reporting. At the time of writing this report it is unclear exactly how student achievement will be reported at national level over and above the benchmark level. What follows is based on the assumption that states and territories will have the responsibility of reporting to their own constituencies.
Reporting numeracy and literacy achievement was discussed in Chapter 6 and several options were canvassed. Given the complexities surrounding vertical equating, it was proposed that implementation of common scale reporting be delayed for three years until further research has been conducted. Support for this proposal was also found in the perceptions of parents and schools who found reporting against achievement standards most valuable for school planning and for identifying students at risk.

Given that student achievement across all Key Learning Areas in New South Wales will be reported on an A to E scale or equivalent word descriptors based on the broad definitions developed by a NSW cross-sectoral committee, it is proposed that this scale be used for reporting NSW students’ achievement in the national common tests. For consistency the D/E or Basic/Limited boundary could correspond to the national benchmark standard and the C/D or Sound/Basic boundary could correspond to a standard equivalent to that expected from the appropriate NSW Foundations of Learning Statements. Consistency of reporting across different types of tests and other assessment tasks would assist parents’ understanding of their child’s achievement.

An implication of this proposition is that there will be a discontinuity in the NSW trend data but this was always inevitable with the introduction of the national tests because the assessment domains of the national tests will be different from those of the existing local tests. From a technical perspective it is possible to maintain the current scales by statistical equating using the NSW items used in the May 2006 trial of the national tests, but the meaning of the scales is likely to change. Since the BST scales were developed from the first tests in 1989 it can be argued that some re-calibration of the current scale is required.

**Recommendation 16:**

*That the results of NSW students on each national common test be reported using an A to E scale or equivalent word descriptors, which represents the range of achievement of students on that test, and that reporting on a common scale be delayed for three years until further research has been conducted.*

The Board of Studies is currently assembling on its website examples of student work to illustrate what the A to E grades mean in different Key Learning Areas for Stages 1 to 5. Similar examples will be required for the national tests.
8.6 An assessment framework for New South Wales schools

The goal of all assessment is improved student outcomes and the primary purpose of the proposed assessment framework is to provide high quality data to support teaching and learning in schools. The additional roles include monitoring of schools at state and system levels, to be the basis of exit certificates at various stages of schooling, and to assist selection for various post-school destinations. The components of the assessment framework are:

1. A formal testing program comprising national full cohort tests of numeracy and literacy at years 3, 5, 7 and 9, light sample NAP tests in specified key Learning Areas, and public examinations conducted by the NSW Board of Studies.
2. High-quality feedback from all formal tests which will support teaching provided to all schools.
3. High-quality school-based assessment that reflects current pedagogy and curriculum, and that emphasises assessment for learning.
4. Appropriate and timely reporting to parents and to jurisdictions.
5. An assessment warehouse containing examples of best practice in assessment base, in the first instance, be based on existing caches of items and other resources held by EMSAD and the Board of Studies and subsequently expanded by assessment tasks contributed by teachers.
6. Appropriate professional learning programs on all aspects of assessment, including assessing for learning and providing appropriate feedback, integrating assessment and pedagogy, and using information from both school-based assessment and formal tests for student and school improvement.
7. A unique student identifier to allow the tracking of student achievement and the transfer of individual test data from primary to secondary sectors.
8. Quality assurance procedures to ensure that all aspects of the framework be reviewed on a regular basis.
9. An ongoing program of research and development in innovative assessment methods and the integration of new technologies, and the provision of support material for schools.

The accountability roles will be served largely by the national tests and public examinations, but the diagnosing, credentialing and selection roles will be served by both formal examinations and school-based assessment. The quality of school-based assessment and the use of assessment information in schools will be enhanced by professional learning programs.
and by the use of exemplars from the data warehouse. A unique student identifier will allow the easy transfer of relevant student information between schools and may improve transition arrangements from primary to secondary schools. An ongoing program of research and development, coupled with appropriate quality assurance measures will ensure the continuing quality of assessment programs in NSW schools.

8.7 Structural and financial implications

New South Wales has a different structure to several other states, with the NSW Board of Studies and the Department of Education and Training having distinct but related roles in relation to curriculum and assessment. Both agencies report to the NSW Minister of Education and Training who, under the 1990 Education Reform Act, has the statutory responsibility for the quality of education in all schools, government and non-government, in the state. The emergence of national testing focuses attention on the need for greater quality assurance and public accountability roles with respect to both government and non-government school sectors.

There are structural and financial issues surrounding the reporting of the results from the national common tests to parents and schools, the provision of diagnostic and associated support material to schools, the provision of computer software that will enable schools to analyse their data and the costs associated with the proposed national agency that will administer the tests. These issues relate to the roles and responsibilities of the New South Wales and Commonwealth governments, and the relationships between the NSW Department of Education and Training, the NSW Board of Studies, the Catholic Education Commission and other independent school systems.

It is premature to speculate on options at this stage, given that no firm decisions have been made in relation to national and state roles and responsibilities in relation to the national common tests. The important issue is that the quality of the information received by all schools, whether state or government, in relation to these national tests, is of similar quality to that currently enjoyed by the government schools in New South Wales. There will be both an imperative and an opportunity for the various educational agencies to collaborate closely to achieve this goal.

If the recommendations made in this review are accepted, there will be also be structural and financial implications for both the Board and the DET associated with the reduction in the number of formal examinations developed by NSW authorities, the proposed assessment warehouse and other activities. The proposals, considered as a package, may be budget
neutral but this cannot be ascertained until the costs associated with the national agency and the national tests are fully known.

There will be opportunities for close collaboration between the NSW Board of Studies and EMSAD in particular, building on the synergies that already exist between the two agencies. Despite some disagreement about the respective roles of the Board of Studies and the DET and some strongly held views about structure, there are obvious merits in some form of collaboration and/or consolidation in the areas of curriculum, assessment and testing, and quality assurance. Consolidation is consistent with the NSW Government’s fiscal strategy to reduce budget outlays and the need to achieve greater economies of scale in resource allocation if services are to be maintained and enhanced, and there is a pressing need to retain a critical mass of test development expertise in New South Wales. Some form of collaboration or consolidation would also reduce overlap between the DET and the Board of Studies in the provision of advice and curriculum and assessment support material to government schools, and ensure that all NSW schools receive the same level of support.

There are several options that could be canvassed, taking into account the defined roles and responsibilities of the Board of Studies and the Department of Education and Training, but until decisions are made at the national level about the roles and responsibilities of the agency that will have oversight for the national common tests, any discussion would be speculative.

8.8 Conclusion

This report has investigated assessment practice in New South Wales and has proposed an assessment framework which encompasses formal tests and school-based assessment, and the development of support material for schools that, if adequately resourced, would deliver quality outcomes for schools. The proposals build on the obvious strengths in curriculum and assessment in New South Wales and the synergies that already exist between various state agencies. The proposal regarding collaboration between different educational authorities in New South Wales and consolidation of some activities will be contentious. It is, however, based on a strong belief in the integration of curriculum and assessment, the need to provide all schools with diagnostic feedback from the national tests and to support school-based assessment in a way that results in improved teaching and learning strategies, and the need to preserve and develop the existing test development expertise in the state.

The purpose of this framework, which should be seen as a unity, is not to increase the amount of assessment in schools, but to ensure that the quality of the assessment program in NSW is
strengthened rather than weakened by the introduction of the national assessment initiatives. The recommendations and proposals have been made with this outcome in mind.
REFERENCES


Board of Studies (2005) NSW primary foundation curriculum statements. NSW Board of Studies. Sydney.


MCEETYA (1989) *The Hobart declaration on national goals for schooling*  


APPENDICES

Appendix A1 Submissions and interviews
Appendix A2 Distribution of survey schools
Appendix A3 Survey questionnaires
Appendix A1 Submission and Interviews

A1.1 Written submissions

Association of Independent Schools
Catholic Education Commission of New South Wales
Council of Catholic School Parents
Education Assessment Australia
Educational Measurement and Schools Accountability Directorate
Federation of Parents and Citizens Association NSW
Independent Education Union
NSW Board of Studies
NSW Primary Principals Association
NSW Secondary Principals Council
NSW Teachers Federation
Parents and Friends Association

A1.2 State and Territory Jurisdictions

New South Wales
Queensland
Tasmania
Victoria
Western Australia
### Appendix A2  Distribution of survey schools

Table A2.1  Survey schools by location and region

<table>
<thead>
<tr>
<th>School type</th>
<th>Number</th>
<th>Location</th>
<th>Region (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban %</td>
<td>1</td>
</tr>
<tr>
<td>Primary</td>
<td>113</td>
<td>53.3</td>
<td>16</td>
</tr>
<tr>
<td>Secondary</td>
<td>80</td>
<td>66.7</td>
<td>11</td>
</tr>
</tbody>
</table>

**Note:** The regions are government school regions. Non-government schools allocated to appropriate areas

- Region 1  Sydney North
- Region 2  Sydney East
- Region 3  Sydney West
- Region 4  Sydney South
- Region 5  Hunter
- Region 6  North Coast
- Region 7  Tamworth
- Region 8  Riverina
- Region 9  West
- Region 10 South Coast

Table A2.2  Survey schools by size

<table>
<thead>
<tr>
<th>School type</th>
<th>Size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-199</td>
</tr>
<tr>
<td>Primary</td>
<td>23</td>
</tr>
<tr>
<td>Secondary</td>
<td>8</td>
</tr>
</tbody>
</table>
Appendix A3

A3.1 Information letters and questionnaires for primary schools
Review of Statewide Assessments
Primary Principals

Dear Principal

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the Basic Skills tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how information from statewide numeracy and literacy tests can be used to improve teaching and learning. A large sample of NSW primary schools has been selected at random to receive invitations to participate in a survey to investigate this question. Within each school I am seeking the views of the principal, several teachers and several parents about the Basic Skills tests or other literacy and numeracy tests used by the school.

The focus of the survey is on the way that parents, teachers and principals use data from these numeracy and literacy tests to improve the teaching and learning of primary age children. Information will be collected through written questionnaires that should take no longer than 30 minutes to complete.

Participation in the survey involves:
- completing the principal’s questionnaire
- distributing and collecting questionnaires to a sample of Year 3 teachers, a sample of Year 5 teachers and a sample of other teachers
- distributing and collecting questionnaires to five parents of Year 3 children
- distributing and collecting questionnaires to five parents of Year 5 children
- returning the completed questionnaires in the envelope provided

The principal’s questionnaire asks about Basic Skills tests or other numeracy and literacy tests that your school has used this year, and about the reports the school received about the performance of your students. You are not asked about how your students performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 30 minutes to complete.

Separate colour-coded questionnaires are provided for other participants. Eight questionnaires are included for teachers (three for Year 3 teachers, three for Year 5 teachers, and two for other teachers who are involved in analysing information from the tests). If more teachers would like to participate you could photocopy the questionnaire or contact me by email and I will send you additional questionnaires. Ten questionnaires are included for parents (five for parents of Year 3 children and five for parents of Year 5 children).

An information sheet is attached to each questionnaire, providing a brief description of the study and what is required of participants. The voluntary nature of participation and the confidentiality of participants’ views are emphasised. Your participation and that of any teacher or any parent is entirely voluntary, and anyone may withdraw at any time without disadvantage. Consent is assumed if completed questionnaires are returned and an envelope is provided for each questionnaire to ensure privacy. No individual or school will be identified in any report and this is ensured by not requiring names on any questionnaire.

If you agree to have your school participate in the survey could you please distribute the questionnaires to the appropriate members of your staff and to samples of parents, and
subsequently arrange for the completed questionnaires to be collected and placed in the large envelope provided. Could this package be posted back to the School of Education at Macquarie University by the end of November.

It is desirable to obtain a random sample of parents and the following method is recommended. If there are 60 students in Year 3, for example, first choose a parent from the first 12 on the year roll. Then choose every 12th parent on the roll, which should give you 5 parents for your sample. Because the questionnaire is in English if you feel that the chosen parent may have difficulty because of their language background, please choose the next parent on the list. Parents, if they choose to participate, have been asked to complete and return their questionnaire to the school during the following week in the envelope provided.

Because the majority of NSW schools use the Basic Skills tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

This research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views and the views of your teachers and parents are very important.

Yours sincerely

Professor George Cooney
School of Education
Macquarie University
NSW 2109

tel:  (02) 9850 8665
email:  george.cooney@mq.edu.au
1. ABOUT YOUR SCHOOL
(please tick the relevant box)

<table>
<thead>
<tr>
<th>Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>[ ]</td>
</tr>
<tr>
<td>Country</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Please specify region: ................................

<table>
<thead>
<tr>
<th>Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>[ ]</td>
</tr>
<tr>
<td>Central</td>
<td>[ ]</td>
</tr>
<tr>
<td>K – 12</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment:</td>
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<tr>
<td>0 – 199</td>
<td>[ ]</td>
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<tr>
<td>200 – 399</td>
<td>[ ]</td>
</tr>
<tr>
<td>400 – 599</td>
<td>[ ]</td>
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<td>600 – 799</td>
<td>[ ]</td>
</tr>
<tr>
<td>800 – 999</td>
<td>[ ]</td>
</tr>
<tr>
<td>1000 –</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

2. ABOUT YOU

Number of years teaching: ............................

Number of years as principal ........................
### 3. ABOUT INDIVIDUAL STUDENTS

*How useful is the information that you receive from the Basic Skills tests in showing you:*

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which an individual student does well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>The areas in which an individual student does not do well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>How an individual student compares with other students in the state</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Whether an individual student is performing at the appropriate standard</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>How much an individual student has improved since the previous BST</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help an individual student to improve</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

*Which information is most important?*

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the shaded column (“Importance”) above. (1 = most important, 2 = next most important, …, 6 = least important)

*How easy are the student reports to understand?*

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>For parents</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*Do these tests provide you with information about an individual student’s progress that you do not get another way?*

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If YES please specify:

.............................................................................................................................................
4. ABOUT YOUR SCHOOL

*How useful is the information that you receive from the Basic Skills tests in showing you:*

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your students do well</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>The areas in which your students do not do well</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>How your students compare with other students in the state</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Whether your students are performing at the appropriate standard</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>How much your students have improved since the previous numeracy &amp; literacy tests</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help your students to improve</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

*Which information is most important?*

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column ("Importance") above. (1 = most important, 2 = next most important, …, 6 = least important)

*How easy is the school report to follow?*

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>For my staff</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

*Do these tests provide you with information about your students’ performance that you do not get another way?*

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

If YES please specify

..........................................................
**How useful is the information that you receive from the Basic Skills tests for:**

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the performance of your students</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying general curriculum areas that could be addressed</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying specific curriculum areas that could be addressed</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying general teaching strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying specific teaching strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>Identifying general assessment strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Planning improvements to the school’s academic program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying specific groups of students who need additional support in numeracy &amp; literacy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. **WHAT YOU DO WITH THE DATA ON THE PERFORMANCE OF YOUR STUDENTS ON THE TESTS?**

With whom do you discuss the student and school reports? (please tick)

| Executive | ☐ | Year 3/5 teachers | ☐ | All staff | ☐ | Parents | ☐ |

Which aspects of the reports are discussed?

...................................................................................................................................................................................
...................................................................................................................................................................................
...................................................................................................................................................................................

Which aspects of the reports do you find most valuable?

...................................................................................................................................................................................
...................................................................................................................................................................................
Which aspects of the reports do you not use?

..........................................................................................................................................................
..........................................................................................................................................................

Do you access the SMART software to analyse your school’s results? (please tick)
Yes ☐ No ☐

Which types of analyses do you carry out?
..........................................................................................................................................................
..........................................................................................................................................................

How useful is the SMART software? How “user-friendly” is the SMART software?

<table>
<thead>
<tr>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Not at all friendly</th>
<th>Not very friendly</th>
<th>Friendly</th>
<th>Very friendly</th>
</tr>
</thead>
</table>

Comments:
..........................................................................................................................................................
..........................................................................................................................................................

6. AN OVERALL COMMENT

Have any changes (eg in teaching and learning strategies, curriculum emphasis) resulted from having data on student performance on the Basic Skills tests available to you and your staff?

Yes ☐ No ☐

Comment:
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................

Any final comments you would like to make about the tests (eg content, timing, availability of data)
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................

This has been a long questionnaire. Thank you for spending the time, and for your response.
Primary teachers

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Education Minister, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the Basic Skills tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve teaching and learning. A large sample of NSW primary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about Basic Skills tests or other numeracy and literacy tests that your school has used this year, and about the reports the school received about the performance of your students. You are not asked about how your students performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 30 minutes to complete.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to the school principal during the next week. Participation is entirely voluntary and there will be no disadvantage if you do not participate. If you do not wish to participate in the study you just return the questionnaire to the principal in the envelope provided.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

Because the majority of NSW schools use the BST tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.

The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views are important.

Yours sincerely

Professor George Cooney
School of Education

Tel: (02) 9850 8665
email: george.cooney@mq.edu.au
1. ABOUT YOUR SCHOOL

(please tick the relevant box)

Location

Metropolitan ☐ Country ☐

Please specify region: ……………………………

Type

Primary ☐ Central ☐ K - 12 ☐

Size

Enrolment: 0 – 199 ☐ 200 – 399 ☐

400 – 599 ☐ 600 – 799 ☐

800 – 999 ☐ 1000 – ☐

2. ABOUT YOU

Number of years teaching: ………………………
3. ABOUT INDIVIDUAL STUDENTS

*How useful is the information you receive from the Basic Skills tests in showing you:*

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which an individual student does well</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>The areas in which an individual student does not do well</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>How an individual student compares with other students in the state</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Whether an individual student is performing at the appropriate standard</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>How much an individual student has improved since the previous BST</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help an individual student to improve</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>

*Which information is most important?*

Please rank these in order of importance by placing 1, 2, 3, 4, 5 or 6 in the shaded column (“Importance”) above. (1 = most important, 2 = next most important, …, 6 = least important)

*How easy are the student reports to understand?*

( Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>For parents</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>

*Do these tests provide you with information about an individual student’s progress that you do not get another way?*

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If YES please specify:

........................................................................................................................................................................
4. ABOUT YOUR SCHOOL

How useful is the information you receive from the Basic Skills tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your students do well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which your students do not do well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How your students compare with other students in the state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether your students are performing at the appropriate standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much your students have improved since the previous numeracy &amp; literacy tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help your students to improve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Which information is most important?

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column (“Importance”) above. (1 = most important, 2 = next most important, …, 6 = least important)

How easy is the school report to follow?

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do these tests provide you with information about your students’ performance that you do not get another way?

(Please tick either Yes or No)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

If YES please specify ………………………………………………………………………………………………………………………………………………………………………………………………

……………………………………………………………………………………………………………………………………………………………………………………………

161
**How useful is the information you receive from the Basic Skills tests for:**

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the performance of your students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>general</em> curriculum areas that could be addressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>specific</em> curriculum areas that could be addressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>general</em> teaching strategies that could be modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>specific</em> teaching strategies that could be modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>general</em> assessment strategies that could be modified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying <em>specific groups of students</em> who need additional support in numeracy &amp; literacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. **WHAT YOU DO WITH THE DATA ON THE PERFORMANCE OF YOUR STUDENTS ON THESE TESTS**

With whom do you discuss the student and school reports? (please tick)

<table>
<thead>
<tr>
<th>Executive</th>
<th>Other teachers</th>
<th>Students</th>
<th>Parents</th>
</tr>
</thead>
</table>

Which aspects of the reports are discussed?

........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................

Which aspects of the reports do you find most valuable?

........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................
Which aspects of the reports do you not use?

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

Do you use the SMART (EDOD) software to analyse your class’s results? (please tick)
Yes ☐ No ☐

Which types of analyses do you carry out?
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

How useful is the SMART software? How “user-friendly” is the SMART software?

<table>
<thead>
<tr>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Not at all friendly</th>
<th>Not very friendly</th>
<th>Friendly</th>
<th>Very friendly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments: ……………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

6. AN OVERALL COMMENT

Have any changes (eg in teaching and learning strategies, curriculum emphasis) resulted from having data on student performance on the Basic Skills tests available to you and other teachers?
Yes ☐ No ☐

Comment: ……………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

Any final comments you would like to make about the tests (eg content, timing, availability of data)
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

This has been a long questionnaire. Thank you for spending the time, and for your response.
November 2005

Review of Statewide Assessments

Parents of Year 3 students

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the Basic Skills tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve your child’s learning. A large sample of NSW primary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about Basic Skills tests or other numeracy and literacy tests that your child has completed this year, and about the reports you received about your child’s performance. You are not asked about how your child performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 20 minutes to complete.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to your child’s teacher during the next week. Participation is entirely voluntary and neither you nor your child will be disadvantaged if you do not participate. If you do not wish to participate in the study you do not have to return the questionnaire.

Because the majority of NSW schools use the Basic Skills tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views are important.

Yours sincerely

Professor George Cooney
School of Education
Macquarie University NSW 2109

Tel: (02) 9850 8666
email: george.cooney@mq.edu.au
**SURVEY OF PRIMARY PARENTS 2005 – YEAR 3**

*How useful is the report you received about the BASIC SKILLS tests in showing you:*

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th>Information</th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your child does well</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Whether your child is performing at a standard appropriate for year 3</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

**Which information is most important?**

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column ("Importance") above.

1 = most important
2 = next most important
3 = next most important
4 = next most important
5 = next most important
6 = least important

**What do you do with the information you receive about your child’s performance on these tests?**

(For each response please tick either Yes or No)

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

**How easy are the reports to understand?**

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
Do these tests give you information about your child’s progress which you do not get in another way?

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
</table>

If YES, please specify …………………………………………………………………………………………………………

Have you any additional comments you would like to make about:

The reports you have received about your child’s performance on these tests.

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

Whether these reports assist you to help your child with their school work.

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

Any other matters concerning the tests.

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

………………………………………………………………………………………………………………………………………………

Could you please place the completed questionnaire in the attached envelope and return it to the school.

Thank you for your help with this survey. Your information will be very useful for the review.
November 2005

Review of Statewide Assessments
Parents of Year 5 students

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the Basic Skills tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve your child’s learning. A large sample of NSW primary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about Basic Skills tests or other numeracy and literacy tests that your child has completed this year, and about the reports you received about your child’s performance. You are not asked about how your child performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 20 minutes to complete.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to your child’s teacher during the next week. Participation is entirely voluntary and neither you nor your child will be disadvantaged if you do not participate. If you do not wish to participate in the study you do not have to return the questionnaire.

**Because the majority of NSW schools use the Basic Skills tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.**

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views are important.

Yours sincerely

Professor George Cooney
School of Education
Macquarie University NSW 2109

Tel: (02) 9850 8666
email: george.cooney@mq.edu.au
SURVEY OF PRIMARY PARENTS 2005 – YEAR 5

How useful is the report you received about the BASIC SKILLS tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th>Information</th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your child does well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Whether your child is performing at a standard appropriate for year 5</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How much your child has improved since the year 3 Basic Skills tests</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Which information is most important?

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column ("Importance") above.

1 = most important
2 = next most important
....
6 = least important

What do you do with the information you receive about your child’s performance on these tests?

(For each response please tick either Yes or No)

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

How easy are the reports to understand?

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th>Difficulty</th>
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<th>Easy</th>
<th>Very easy</th>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Do these tests give you information about your child’s progress which you do not get in another way?

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
</table>

If YES, please specify …………………………………………………………………………………………………………..

Have you any additional comments you would like to make about:

The reports you have received about your child’s performance on these tests.
………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………

Whether these reports assist you to help your child with their school work.
………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………

Any other matters concerning the tests.
………………………………………………………………………………………………………………………………………………
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………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………

Could you please place the completed questionnaire in the attached envelope and return it to the school.

Thank you for your help with this survey. Your information will be very useful for the review.
A3.2 Information letters and questionnaires for high schools
Dear Principal

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the English Language and Literacy Assessment (ELLA) and the Secondary Numeracy Assessment Program (SNAP) tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He may be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how information from statewide numeracy and literacy tests can be used to improve teaching and learning. A large sample of NSW secondary schools has been selected at random to receive invitations to participate in a survey to investigate this question. Within each school I am seeking the views of the principal, several teachers and several parents about the ELLA and SNAP tests or other literacy and numeracy tests used by the school.

The focus of the survey is on the way that parents, teachers and principals use data from these numeracy and literacy tests to improve the teaching and learning of high school children. Information will be collected through written questionnaires that should take no longer than 30 minutes to complete.

Participation in the survey involves:

- completing the principal’s questionnaire
- distributing and collecting questionnaires to a sample of Year 7 teachers, a sample of Year 8 teachers and a sample of other teachers
- distributing and collecting questionnaires to five parents of Year 7 children
- distributing and collecting questionnaires to five parents of Year 8 children
- returning the completed questionnaires in the envelope provided

The principal’s questionnaire asks about ELLA and SNAP tests or other literacy and numeracy tests that your school has used this year, and about the reports the school received about the performance of your students. You are not asked about how your students performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 30 minutes to complete.

Separate colour-coded questionnaires are provided for other participants. Eight questionnaires are included for teachers (three for Year 7 teachers, three for Year 7 teachers, and two for other teachers who are involved in analysing information from the tests). If more teachers would like to participate you could photocopy the questionnaire or contact me by email and I will send you additional questionnaires. Ten questionnaires are included for parents (five for parents of Year 7 children and five for parents of Year 8 children).

An information sheet is attached to each questionnaire, providing a brief description of the study and what is required of participants. The voluntary nature of participation and the confidentiality of participants’ views are emphasised. Your participation and that of any teacher or any parent is entirely voluntary, and they may withdraw at any time without disadvantage. No individual or school will be identified in any report and this is ensured by not requiring names on any questionnaire. Consent is assumed if completed questionnaires are returned and an envelope is provided for each questionnaire to ensure privacy.
If you agree to have your school participate in the survey could you please distribute the questionnaires to the appropriate members of your staff and to samples of parents, and subsequently arrange for the completed questionnaires to be collected and placed in the large envelope provided. Could this package be posted back to the School of Education at Macquarie University by the end of November.

It is desirable to obtain a random sample of parents and the following method is recommended. If there are 120 students in Year 7, for example, first choose a parent from the first 24 on the year roll. Then choose every 24th parent on the roll, which should give you 5 parents for your sample. Because the questionnaire is in English if you feel that the chosen parent may have difficulty because of their language background, please choose the next parent on the list. Parents, if they choose to participate, have been asked to complete and return their questionnaire to the school during the following week in the envelope provided.

*Because the majority of NSW schools use the ELLA and SNAP tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.*

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

This research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views and the views of your teachers and parents are very important.

Yours sincerely

Professor George Cooney
School of Education
Macquarie University
NSW 2109

tel:  (02) 9850 8665
email:  george.cooney@mq.edu.au
1. **ABOUT YOUR SCHOOL**

(please tick the relevant box)

**Location**

<table>
<thead>
<tr>
<th>Metropolitan</th>
<th>Square</th>
<th>Country</th>
<th>Square</th>
</tr>
</thead>
</table>

Please specify region: ………………………

**Type**

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<tr>
<th>Selective High School</th>
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<th>Square</th>
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<tbody>
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**Size**

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<tr>
<th>Enrolment:</th>
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<th>400 – 599</th>
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<th>800 – 999</th>
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</tbody>
</table>

2. **ABOUT YOU**

Number of years teaching: ………………………

Number of years as principal ………………………
3. **ABOUT INDIVIDUAL STUDENTS**

*How useful is the information that you receive from the ELLA and SNAP tests in showing you:*

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which an individual student does well</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>The areas in which an individual student does not do well</td>
<td>□</td>
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<tr>
<td>How an individual student compares with other students in the state</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>Whether an individual student is performing at the appropriate standard</td>
<td>□</td>
<td>□</td>
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<td>□</td>
</tr>
<tr>
<td>How much an individual student has improved since the previous numeracy &amp; literacy tests</td>
<td>□</td>
<td>□</td>
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<tr>
<td>The areas in which you can help an individual student to improve</td>
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</table>

*Which information is most important?*

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the shaded column (“Importance”) above. (1 = most important, 2 = next most important, …, 6 = least important)

*How easy are the student reports to understand?*

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>For parents</td>
<td>□</td>
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</tr>
</tbody>
</table>

*Do these tests provide you with information about an individual student’s progress that you do not get another way?*

(Please tick either Yes or No)

| Yes | □ | No | □ |

If YES please specify: ..................................................................................................................
4. ABOUT YOUR SCHOOL

How useful is the information that you receive from the ELLA and SNAP tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
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<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your students do well</td>
<td></td>
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<tr>
<td>The areas in which your students do not do well</td>
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<tr>
<td>How your students compare with other students in the state</td>
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<tr>
<td>Whether your students are performing at the appropriate standard</td>
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<tr>
<td>How much your students have improved since the previous numeracy &amp; literacy tests</td>
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<tr>
<td>The areas in which you can help your students to improve</td>
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</tbody>
</table>

Which information is most important?

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column (“Importance”) above. (1 = most important, 2 = next most important, …. , 6 = least important)

How easy is the school report to understand?

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
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<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
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</thead>
<tbody>
<tr>
<td>For me</td>
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<tr>
<td>For my staff</td>
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</tbody>
</table>

Do these tests provide you with information about your students’ performance that you do not get another way?

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tr>
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</table>

If YES please specify …………………………………………………………………………………………………………………………………………………………………………………………….
**How useful is the information that you receive from the ELLA and SNAP tests for:**

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the performance of your students</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>Identifying general curriculum areas that could be addressed</td>
<td>☐</td>
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<tr>
<td>Identifying specific curriculum areas that could be addressed</td>
<td>☐</td>
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<td>Identifying general teaching strategies that could be modified</td>
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<td>Identifying specific teaching strategies that could be modified</td>
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<tr>
<td>Identifying general assessment strategies that could be modified</td>
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<tr>
<td>Planning improvements to the school’s academic program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Identifying specific groups of students who need additional support in numeracy &amp; literacy</td>
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</table>

**5. WHAT YOU DO WITH THE DATA ON THE PERFORMANCE OF YOUR STUDENTS ON THE TESTS**

With whom do you discuss the student and school reports? (please tick)

| Executive | ☐ | Year 7/8 teachers | ☐ | All staff | ☐ | Parents | ☐ |

Which aspects of the reports are discussed?

........................................................................................................................................

........................................................................................................................................

........................................................................................................................................

Which aspects of the reports do you find most valuable?

........................................................................................................................................

Which aspects of the reports do you not use?

Do you access the SMART (EDOD) software to analyse your school’s results? (please tick)
Which types of analyses do you carry out? ……………………………………………………………………….
……………………………………………………………………………………………………………………………………
How useful is the SMART software? How “user-friendly” is the SMART software?

<table>
<thead>
<tr>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Not at all friendly</th>
<th>Not very friendly</th>
<th>Friendly</th>
<th>Very friendly</th>
</tr>
</thead>
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</tr>
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</table>

Comments: ……………………………………………………………………………………………………………
………………………………………………………………………………………………………………………….
6. AN OVERALL COMMENT

Have any changes (eg in teaching and learning strategies, curriculum emphasis) resulted from having data on student performance on the ELLA and SNAP tests available to you and your staff?

Yes ☐ No ☐

Comment: ……………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………..
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Any final comments you would like to make about the tests (eg content, timing, availability of data)
…………………………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………..

This has been a long questionnaire. Thank you for spending the time, and for your response.
November 2005

Review of Statewide Assessments
Secondary Teachers

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the English Language and Literacy (ELLA) and the Secondary Numeracy Assessment Program (SNAP) tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve teaching and learning. A large sample of NSW secondary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about the ELLA and SNAP tests or other numeracy and literacy tests that your school has used this year, and about the reports the school received about the performance of your students. You are not asked about how your students performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 30 minutes to complete.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to the school principal during the next week. Participation is entirely voluntary and there will be no disadvantage if you do not participate. If you do not wish to participate in the study you just return the questionnaire to the principal in the envelope provided.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

Because the majority of NSW schools use the ELLA and SNAP tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.

The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views are important.

Yours sincerely

Professor George Cooney
School of Education
Macquarie University NSW 2109

Tel: (02) 9850 8665
email: george.cooney@mq.edu.au
1. ABOUT YOUR SCHOOL

(please tick the relevant box)

Location

Metropolitan ☐ Country ☐

Please specify region: ................................

Type

Selective High School ☐ Central ☐ K – 12
☐ Comprehensive High School ☐

Size

Enrolment: 0 – 199 ☐ 200 – 399 ☐
400 – 599 ☐ 600 – 799 ☐
800 – 999 ☐ 1000 – ☐

2. ABOUT YOU

Number of years teaching: ...........................

Position: Executive ☐ Other ☐

Please specify teaching area ............................
3. ABOUT INDIVIDUAL STUDENTS

How useful is the information you receive from the ELLA and SNAP tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which an individual student does well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which an individual student does not do well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>How an individual student compares with other students in the state</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Whether an individual student is performing at the appropriate standard</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How much an individual student has improved since the previous numeracy &amp; literacy tests</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which you can help an individual student to improve</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Which information is most important?

Please rank these in order of importance by placing 1, 2, 3, 4, 5 or 6 in the shaded column (“Importance”) above. (1 = most important, 2 = next most important, …, 6 = least important)

How easy are the student reports to understand?

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>For parents</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Do these tests provide you with information about an individual student’s progress that you do not get another way?

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If YES please specify:

..................................................................................................................................................................................
4. ABOUT YOUR SCHOOL

How useful is the information you receive from the ELLA and SNAP tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
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<tr>
<th></th>
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Which information is most important?

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(1 = most important, 2 = next most important, …, 6 = least important)

How easy is the school report to follow?

(Please tick one of the boxes below)

<table>
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Do these tests provide you with information about your students’ performance that you do not get another way?

(Please tick either Yes or No)

<table>
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</table>

If YES please specify ………………………………………………………………………………………………………………………………………..
**How useful is the information you receive from the ELLA and SNAP tests for:**

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<tbody>
<tr>
<td>Improving the performance of your students</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>general</em> curriculum areas that could be addressed</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>specific</em> curriculum areas that could be addressed</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>general</em> teaching strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>specific</em> teaching strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>general</em> assessment strategies that could be modified</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Identifying <em>specific</em> groups of students who need additional support in numeracy &amp; literacy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. **WHAT YOU DO WITH THE DATA ON THE PERFORMANCE OF YOUR STUDENTS ON THESE TESTS**

With whom do you discuss the student and school reports? (please tick)

| Executive | ☐ | Other teachers | ☐ | Students | ☐ | Parents | ☐ |

Which aspects of the reports are discussed?

………………………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………………………

Which aspects of the reports do you find most valuable?

………………………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………………………………………
Which aspects of the reports do you not use?

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

Do you access the SMART (EDOD) software to analyse your class’s results? (please tick)
Yes □   No □

Which types of analyses do you carry out? ……………………………………………………………………………
……………………………………………………………………………………………………………………………………

How useful is the SMART software?   How “user-friendly” is the SMART software?

<table>
<thead>
<tr>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Not at all friendly</th>
<th>Not very friendly</th>
<th>Friendly</th>
<th>Very friendly</th>
</tr>
</thead>
</table>

Comments: ……………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

6. AN OVERALL COMMENT

Have any changes (eg in teaching and learning strategies, curriculum emphasis) resulted from having data on student performance on the ELLA and SNAP tests available to you and other teachers?

Yes □   No □

Comment: ……………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

Any final comments you would like to make about the tests (eg content, timing, availability of data)

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

This has been a long questionnaire. Thank you for spending the time, and for your response.
Review of Statewide Assessments  

Parents of year 7 students

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the English Language and Literacy Assessment (ELLA) and the Secondary Numeracy Assessment Program (SNAP) tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve your child’s learning. A large sample of NSW secondary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about the ELLA and SNAP tests or other literacy and numeracy tests that your child has completed this year, and about the reports you received about your child’s performance. You are not asked about how your child performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 20 minutes to complete.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to your child’s teacher during the next week. Participation is entirely voluntary and neither you nor your child will be disadvantaged if you do not participate. If you do not wish to participate in the study you do not have to return the questionnaire.

Because the majority of NSW schools use the ELLA and SNAP tests, for simplicity the questionnaires refer to these tests. If your school uses LANA or some other literacy test could you please indicate on the cover sheet and respond to the questionnaire in relation to that test.

The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Thank you for considering this invitation to participate in an important study. Your views are important.

Yours sincerely

Professor George Cooney  
School of Education  
Macquarie University  
NSW 2109

Tel: (02) 9850 8665  
email: george.cooney@mq.edu.au
**SURVEY OF SECONDARY PARENTS 2005 – YEAR 7**

**How useful are the reports you received about the ELLA and SNAP tests in showing you:**

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th>Areas</th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your child does well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Whether your child is performing at a standard appropriate to year 7</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Which information is most important?**

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column (“Importance”) above.

1 = most important  
2 = next most important  
.... 6 = least important

**What do you do with the information you receive about your child’s performance on these tests?**

(For each response please tick either Yes or No)

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**How easy are the reports to understand?**

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Not at all easy</th>
<th>Not easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Do these tests give you information about your child’s progress which you do not get in another way?

(Please tick either Yes or No)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If YES, please specify ……………………………………………………………………………………………

Have you any additional comments you would like to make about:

The reports you have received about your child’s performance on these tests.

………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

Whether these reports you receive help you to assist your child with their school work.

………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

Any other matters concerning the tests.

………………………………………………………………………………………………………………
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………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

Could you please place the completed questionnaire in the attached envelope and return it to the school.

Thank you for your help with this survey. Your information will be very useful for the review.
November 2005

Review of Statewide Assessments
Parents of year 8 students

A major review is being conducted of assessment programs in NSW schools at the request of the NSW Minister for Education and Training, Ms Carmel Tebbutt. This review examines current NSW assessment programs of literacy and numeracy, including the English Language and Literacy Assessment (ELLA) and the Secondary Numeracy Assessment Program (SNAP) tests, and how they fit with new national tests expected to commence in 2007. Professor George Cooney from the School of Education at Macquarie University has been appointed to conduct the review. He can be contacted on (02) 9850 8666 or george.cooney@mq.edu.au.

One important question is how the information you receive from these tests or other tests of literacy and numeracy can be used to improve your child’s learning. A large sample of NSW secondary schools has been selected at random and within each school several teachers and parents have been chosen, also at random, to receive invitations to participate in a survey to investigate this question.

Participation in the survey involves completion of the attached written questionnaire which asks about the ELLA and SNAP tests or other literacy and numeracy tests that your child has completed this year, and about the reports you received about your child’s performance. You are not asked about how your child performed, but your views on how useful and informative the information contained in the reports is to you. Your views will be treated in a confidential manner and will be seen only by the researcher. You are not required to provide your name so there is no way that you can be identified in any report. The questionnaire will take no more than 20 minutes to complete.

Following completion of the research a report will be submitted to the NSW Minister for Education and Training.

If you agree to take part in the survey could you please complete the attached questionnaire, place it in the envelope provided, and return it to your child’s teacher during the next week. Participation is entirely voluntary and neither you nor your child will be disadvantaged if you do not participate. If you do not wish to participate in the study you do not have to return the questionnaire.

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The research has been approved by the NSW Department of Education and Training and the Catholic Education Commission, and the ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (tel: 02 9850 7854, fax: 02 9850 8799, email: ethics@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

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Yours sincerely

Professor George Cooney
School of Education
Macquarie University NSW 2109

Tel: (02) 9850 8665
email: george.cooney@mq.edu.au
SURVEY OF SECONDARY PARENTS 2005 – YEAR 8

How useful are the reports you received about the ELLA and SNAP tests in showing you:

(For each piece of information please tick one of the boxes in the first four columns below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The areas in which your child does well</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>The areas in which your child does not do well</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>How your child compares with other children in the state</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>Whether your child is performing at the standard appropriate for year 8</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>How much your child has improved since the year 7 ELLA &amp; SNAP Tests</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>The areas in which you can help your child improve</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
</tbody>
</table>

Which information is most important?

Please rank these in order of importance by placing 1,2,3,4,5 or 6 in the last column ("Importance") above.

1 = most important
2 = next most important
....
6 = least important

What do you do with the information you receive about your child’s performance on these tests?

(For each response please tick either Yes or No)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the results with my child</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>Discuss areas of weakness with my child’s teachers</td>
<td>Θ</td>
<td>Θ</td>
</tr>
<tr>
<td>Look to see how I can help my child</td>
<td>Θ</td>
<td>Θ</td>
</tr>
</tbody>
</table>

How easy are the reports to understand?

(Please tick one of the boxes below)

<table>
<thead>
<tr>
<th></th>
<th>Not at all easy</th>
<th>Not very easy</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
<td>Θ</td>
</tr>
</tbody>
</table>
**Do these tests give you information about your child’s progress which you do not get in another way?**

(Please tick either Yes or No)

| Yes | ☐ | No | ☐ |

If YES, please specify …………………………………………………………………………………………

**Have you any additional comments you would like to make about:**

*The reports you have received about your child’s performance on these tests.*
……………………………………………………………………………………………………………
……………………………………………………………………………………………………………
……………………………………………………………………………………………………………

*Whether these reports help you assist your child with their school work.*
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*Any other matters concerning the tests.*
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*Could you please place the completed questionnaire in the attached envelope and return it to the school.*

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