

SCHOOL USE OF EXTERNAL AND INTERNAL ASSESSMENT DATA TO IMPROVE STUDENT PERFORMANCE*

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This paper is based on a report *Teacher Judgment: Building an Evidentiary Base for Quality Literacy and Numeracy Education* (2006) undertaken by Joy Cumming, Claire Wyatt-Smith, John Elkins and Mary Neville, funded by the Queensland Studies Authority. The full report is available from <<http://www.qsa.qld.edu.au/publications/3514.html>>.

Abstract

This paper draws on an empirical study completed in 2006 by the presenters funded by the research program of the Queensland Studies Authority. The study investigated the ways in which teachers judged student achievement in Year 3 and Year 5 in school, the congruence between the school achievement information and student performance on the Year 3 and Year 5 state external literacy and numeracy tests, designed to identify students at risk, and the use made of all data to improve student achievement in the following years, Year 4 and Year 6 respectively. The study found that teachers considered a different range of achievement dimensions from those measured by the external tests, and were confident of their ratings even when these differed, on occasion, from the external measures. The study also found little evidence that either source of data was used to inform instructional practice for the students in the following year. The study made a number of recommendations to improve the nature of information provision to schools and school use of data to assist students.

Introduction

The project discussed in this paper investigated teachers' assessment practices in literacy and numeracy in Years 3 to 6 in Queensland, Australia. The purpose of the project was to examine teachers' assessment practices, compare these with outcomes of the *Year 3 and Year 5 Aspects of Literacy and Numeracy Tests* conducted by the Queensland Studies Authority in accord with mandated external accountability requirements, consider ways in which both forms of assessment outcomes were congruent or differed, and ways in which they could be used as complementary to support improved learning outcomes for students. As part of the project, schools' use of the Tests data to plan instruction and improve student learning was investigated.

This paper presents three key findings of the full study: the nature of the teachers' assessment practices and the scope of the literacy and numeracy dimensions they covered; current use of external test data in schools and coherence of the test outcomes with teacher judgment; and the contribution teacher assessment could make in profiling student literacy and numeracy achievement, with recommendations to improve the efficient use of both external and internal data to improve student learning.

Policy context for literacy and numeracy assessment in Australian schools

In Australia over the last two decades, one of the most public educational reform agendas has been the press for improvement in and accountability for Australian students' learning outcomes in literacy and numeracy. National goals and standards were developed in Australia through two significant agreements between the federal Minister and all state and territory Ministers for Education: the Hobart Declaration on Schooling (1989) (MCEETYA, 1989) and the Adelaide Declaration on National Goals for the Twenty-First Century (MCEETYA,

1999).

To support the achievement of these goals, the Ministers endorsed a National Literacy and Numeracy Plan which included

- comprehensive assessment of all students as early as possible, to identify those students at risk of not making adequate progress towards the national numeracy and literacy goals;
- intervening as early as possible to address the needs of students identified as at risk;
- the development of agreed national benchmarks in literacy and numeracy, against which all students' achievement in these years can be measured;
- assessment of students against the national benchmarks using rigorous state-based assessment procedures;
- progress towards national reporting by systems on student achievement against the benchmarks; and
- professional development for teachers to support the key elements of the National Plan. (DEST, undated)

The above principles make clear the emphasis of both Declarations and of the Plan on early intervention in literacy and numeracy targeted specifically at students deemed to be 'at risk', identified through their performance on external testing requirements against national benchmarks of acceptable minimum standards of literacy and numeracy performance — the statements for which were developed through professional consultation during this period. The emphases of the Declarations and the National Plan are on improvement of student learning to ensure all children have the fullest opportunities for successful education and life fulfillment. The Queensland *Year 3 and Year 5 Aspects of Literacy and Numeracy Tests* discussed in this paper were also designed to assess the full range of assessment and literacy performance, not just to focus on the at-risk level.

Since the launch of the Plan, the Years 3, 5 and 7 literacy and numeracy testing program has been redesignated as testing of reading, writing, language conventions (spelling, grammar and punctuation) and numeracy,¹ to include Year 9, and with a move in 2008, driven by Commonwealth funding legislation,² from state-based to a national testing system. These changes have been accompanied by a requirement for student achievement on school assessments to be reported on a five point scale (A to E or equivalent).³ Since 2006, school performance Tests data are required to be available in at least two of the following forms: hard copy to parents; posted on school websites; or posted on a publicly-visible billboard.⁴

Methodology

The project involved cases studies with seven Queensland primary schools over two years. The case study schools comprised four government (state) and three non-government (two independent, one Catholic) schools, and included a diverse range of socio economic and cultural student communities, and geographic diversity (Table 1). In the first year of the study, Year 3 and Year 5 teachers in the schools were invited to participate and to provide information on their assessment practices in literacy and numeracy and about student performance. In all, 56 teachers across the years were involved in individual or group meetings with the research team.

The participating Year 3 and Year 5 teachers were each asked to nominate three students. The advice to the teachers was to choose students 'above level', 'at level' and 'below level', for each of literacy and numeracy. In many cases, teachers chose the same students for both literacy and numeracy, and in larger schools with more teachers fewer students were selected

¹ *Schools Assistance (Learning Together—Achievement Through Choice And Opportunity) Regulations 2005* (Cth) (*Schools Assistance Regulations*) reg 2.7.

² *Schools Assistance (Learning Together—Achievement Through Choice and Opportunity) Bill 2004* (Cth) (*Schools Assistance Act*) s 17).

³ *Schools Assistance Regulations* reg 2.3.

⁴ *Schools Assistance Act* reg 2.6.

per teacher.

Table 1: Characteristics of Case Study

Sector	Characteristics
Government	Lower SES, Co Ed, Outer Metropolitan
Government	Lower middle SES, Co Ed, Rural, 2 teacher school
Government	Indigenous, Lower SES, Co Ed, Rural
Non-government (independent)	High SES, Co Ed, Christian, Metropolitan
Non-government (independent)	High SES, Co Ed Year 3, All girls Year 5, Christian, Metropolitan
Non-government (Catholic Education)	Middle SES, Co Ed, Catholic, Metropolitan

In all, some 37 Year 3 and 33 Year 5 students became profiled students in the project. Students were not directly interviewed in the project, nor were parents. The major information sources for the project were the teacher interviews about assessment practices, and external and internal achievement outcomes for the focus students, supported by student work samples. These samples included teacher generated tasks, commercial programs, diagnostic and standardised tests, and school report cards, as well as the external *Year 3 and 5 Aspects in Literacy and Numeracy Tests* reports for profiled students.

Interviews with teachers about assessment practices and student performance were semi-structured, with the group meetings including sharing and discussion of teacher records and the student work. At the initial interviews, Years 3 and 5 teachers were asked to identify their chosen profiled students and to discuss why these students had been chosen as representative, in the teachers' terms, as 'above', 'at' and 'below' levels in the areas of literacy and numeracy. Most importantly for the project, definitions of 'above', 'at' and 'below' level were not provided to teachers, schools made their own judgments. Similarly, 'literacy' and 'numeracy' were also not defined. A focus of the project team was to explore schools' practices and schools' meanings. From the teacher talk, frameworks teachers were using for literacy and numeracy, and standards were identified.

Interviews with the Year 3 and Year 5 teachers took place at the beginning of the school year⁵ and at the end, after the external literacy and numeracy Tests results were known. Teachers were also asked to comment on the progress in literacy and numeracy made by the focus students over the year, in their own terms.

In the second year of the project, the Year 4 and Year 6 teachers now teaching the profiled students were interviewed about their use of student achievement records from the previous year, including the external Tests data, to enhance learning improvement, and whether the reported test results confirmed or challenged their judgments of students' literacy and numeracy performance. Hence, the data set was designed to track the profiled students through their achievements in numeracy and literacy in-class performance from Year 3 to Year 4, and Year 5 to Year 6, respectively, as well as to examine the agreement between the teacher judgments of student performance and the external test outcomes.

Three of the main findings from the project are reported below.

Findings

1. Teacher dimensions in assessment of literacy and numeracy

Our project revealed that teachers reported drawing routinely from a mix of assessment evidence to inform pedagogy and judgment, including teacher generated materials, standardised testing and commercial packages, including levelled readers in literacy, and their

⁵ The Australian school year operates on the calendar year.

own observations, to assess student achievement in English and Mathematics. While some of this evidence was explicit and available for scrutiny, other evidence such as that collected through observation and student consultation, was not recorded. More fundamental is the matter of the salience that the teachers gave to both evidence types, especially as each functions to inform efforts to improve learning. The interview data and the records of teacher assessment artifacts show that in practice, as teachers actively seek to collect and interpret assessment evidence to indicate outcomes achieved, they are also keenly ‘kid-watching’ (Goodman, 1978). In this work, they orient to individuals and to the class group, mentally tracking progression from one task to the next, updating over time. They are also keenly tuning into not only the demonstrations of achieved outcomes, but also to learner engagement characteristics, especially as these are taken to indicate enhanced (or diminished) involvement in school learning. Essentially, it is this mix of latent and explicit information that teachers reported valuing for how it informed their efforts to maintain student engagement and progress literacy and numeracy learning over time.

The dimensions of literacy and numeracy that teachers relied on in assessing literacy and numeracy can be identified through three main framings: 1) the conceptual frames teachers reported drawing on in making judgments; 2) approaches to setting tasks and collecting evidence over time, and 3) a concentration on student engagement. Dimensions can also be identified through the relationship between these and the frameworks that are offered by the syllabuses. The first dimension identified is how teachers appear to construct literacy and numeracy as discipline areas. Consistent across the interviews was the strong association of literacy with discipline ‘English’, the latter distinguished from the English in Years 1-10 syllabus (QSA, 2005) as the official curriculum. Across the body of data, it was clear that while most teachers reported that they were aware of the syllabus, in the main it had limited influence over how they assessed.

Further, in discussing literacy assessment, teacher talk emphasised reading (decoding and comprehension) and writing (text production) as primary modes of focus. More specifically, the teachers emphasised operational aspects of language including spelling, grammar, and to a lesser extent, control of generic structures. The 2005 English syllabus incorporated a framework of literacy as operational, cultural and critical, suggested by Green (1988). However, cultural and critical dimensions were mentioned rarely by the teachers. Some teachers emphasised students’ evaluative engagement with text, including comprehension and higher order thinking skills. Interestingly, despite a concerted push to integrate Information Communication Technologies (ICTs) in the curriculum, few teachers made references to student assessment extending to working with ICTS, and no instance occurred where higher order thinking skills and ICTs were combined in classroom assessment. This observation points to the continuing dominance of print and print related capabilities in teacher framing of literacy and assessment practices.

This is consistent with how teachers reported prioritising instruction in and assessment of what they referred to as ‘the basics’. For example, a teacher talked about ‘concentrating on ... vocab and grammar’:

Teacher: I’ve been really concentrating on lots of vocab and grammar. I figure until my kids understand about full stops and capitals and adjectives and all that kind of stuff ... I’ll just keep doing that next year and maybe work directly from a novel, so they get that idea of characterisation...

In our case study schools, and we suspect statewide, frameworks of numeracy were not so idiosyncratic to teachers but were aligned strongly with materials drawing on the Mathematics Syllabus (as distinct from first hand use of the syllabus itself). Teachers’ use of mathematics packages (for example, *Go Maths* (Irons et al., 2005-8)) aligned with the Key Learning Area, was evident in how they discussed student progress and their efforts at monitoring progress over time.

Overall, teachers reported that they saw their core business to entail monitoring individual

progress over time. To this end, their assessment work entailed collecting different types of material evidence. However, the relationship of the contributing elements to the total body of collected evidence, or indeed the motivation for collecting, was not traced to a commonly adopted framework or stated theoretical construct of literacy and numeracy. This was the case even though literacy/English (consistently taken as interchangeable) was commonly talked about as having reading, writing, comprehension and spelling as its core business, and numeracy/Mathematics, number, space, chance and data.

Beyond this, the teachers' talk showed that they relied on locally developed frames of reference for informing assessment practice. These included their prior evaluative histories and their knowledge of the types of assessment evidence they collected in previous teaching years, the evidence that peers collected in their current or other school sites, and their 'insider' knowledge of what could reasonably be expected of students at a given year level.

Interviewer: In Year 6, ... if you were going to say that the group is very high or in the middle or low, from where do you get the standard? Is it from curriculum?

Teacher 1: Just compare it with what you've experienced with the children the year before.

Teacher 2: And then we do a test, which is put together here, there, just a selection of things that they've covered.

Interviewer: A Maths test?

Teacher 1: Yeah, a Maths test, taking bits and pieces from...this year we used the PAT (Progressive Achievement Test) because that's what we used last year and administered that to see how they went but see, depending on...the kids last year, it's just - the cohort really...the peer grouping.

A common characteristic of assessment practices identified across sites and across teachers was the heavy reliance on monitoring through observation. Such observation evidence, as mentioned previously, typically was not recorded, though teachers could readily recall first hand observations of student engagement with learning opportunities, at both the individual and class levels.

Moreover, it was observation data that seemed most potent in the teachers' formative assessment practices and related efforts to improve outcomes for all learners. A Year 4 teacher reported how she decided to read number work aloud to a focus student, working at the teacher's desk, to identify learning processes and areas of difficulty.

A critical finding related to how the teachers routinely ascribed value in their literacy and numeracy frameworks and assessment practices to evidence of learner **engagement**. This was construed broadly in relation to on task performance features and attitudinal features, taking account of variables that traditionally fall outside official curriculum documents. In practice, this involved the teachers in combining their collected information about 'process' characteristics (that is, how students go about completing in and outside class activities) and 'product' characteristics (indicating the quality of completed or final versions of student work), with additional individual learner-focused information. In the latter category was a stockpile of information that the teachers collected about student engagement with learning and more specifically, their growth characteristics in the domains of literacy and numeracy. These characteristics had potency in informing teacher assessment of each individual's progression, raising to teacher consciousness those variables that could be attended to in classroom interactions and outside this context. They surfaced in particular in teachers' descriptions of students' engagement with learning, one of which is offered next:

With ..., basically he needs very direct teaching and constant repetition if he hasn't got it. Some things he gets, some things he doesn't. And if he doesn't, he really wants to please, and he can be quite nervous and gets embarrassed very easily. So the teacher really has to win his confidence and for him to feel supported in the classroom or I could see his maths deteriorating quite quickly, well not only maths, anything.

In this segment the teacher can be heard 'Reading the student as the child' to identify engagement, relying on this as an element to interpret how learning is occurring. The repeated references to the attitudinal and affective domains suggest the teacher's keen interest in

tuning into ways of being responsive to the student, in part to win and build his confidence. Here and elsewhere throughout the corpus of interview data there was frequent mention of engagement variables including confidence, risk taking, enthusiasm, willingness to do more, and talking up in class.

In effect, teachers could be said to be involved with banking of learner observations over time in a recursive model. That is to say, the teachers reported that they were actively monitoring learner engagement to cue themselves in to interpreting the artefacts for what they disclosed about learning. The assessment gaze of the teacher was therefore both point in time and over time, giving assessment both a social and historical perspective.

This is the richness that the teachers added: they made provision for looking at the student/child as a social identity in the school community, and accordingly, assessed within a framework that was not formally documented in local materials, or recorded in syllabus or other formal curriculum documents. The contribution of this research is to make an opening for considering how this framework was constituted by traditional or expected process and product features, as well as an expansive repertoire of learner engagement features, perhaps reflective of the broader reform goals of the *Adelaide Declaration* and national policies. Further, the framework, as enacted by teachers, was dynamic, with each of the three components taken to be interrelated.

The language used by teachers to describe student achievement and how they perceived the differentiation of performance at levels is shown in Table A.1 in Appendix A.

2. Use by teachers of previous assessment information and the Year 3 and Year 5 Aspects of Literacy and Numeracy Tests outcomes to improve student learning

While an emphasis on foundation or basic literacy skills was common across sites, the teachers' talk also showed that typically, they decided teaching and assessment for a year level in the absence of knowledge of assessment information available from previous years. This occurred for two main reasons. First, there were cases where no information was available, due, for example, to students transferring into the school, or where provision was not made within the school for collected evidence to be carried forward, say in folios, from one year to the next. Some teachers reported that they deliberately chose not to access portfolios, though they were available, as they preferred to make up their own minds about a student's performance, without undue influence from the judgments of other teachers. In general, schools in Queensland do create portfolios for students which are to be carried from year to year, with a move to digital portfolios. Over time, even with selectivity, the folios become quite large. This may be why in our case studies, while teachers place considerable emphasis on using portfolios to chart development and achievement within a school year, limited use appeared to be made of such folios at the classroom level by teachers to be informed in the following year. However, the way teachers construct their identity in relation to 'their' students in 'their' classroom, beyond the discussion of this paper, appears to be a major factor.

We found little evidence that the Years 3 and 5 test outcomes were used to inform the learning of individual children. Some references were made to use of the Tests data to plan interventions with learning difficulties, especially in schools with Learning Support teachers who were able to access the data. No references were made to use of the Tests data to identify children who needed extension activities. However, having made these comments, in general the impression given by teachers was that they knew or could identify student learning difficulties and were already offering many extended learning or assessment opportunities to students who were high achieving. Further, a major issue for use of the test outcomes was the timing of the testing and release of the results, the former in September, and the latter near the close of the school year. The new national testing programme has been scheduled to occur in May so that results can inform the current school year (in our Queensland report we have recommended such a change). An issue then is that this is more a test of students' learning in the previous school year than in the current school year (and with the current teacher),

although the literacy and numeracy benchmarks have not been restated to reflect this change. The most prevalent onsite use of the Test data was to direct instruction at the classroom level for future cohorts.

if ... that's an area that they hadn't done so well on so I've got to make sure I cover that better in the future, prepare them better so...

In some cases, even Learning Support teachers were directing their attention to this goal.

I'm working with children in Year 3, 5 and 7, working on the kinds of areas this school has traditionally been weak in and I'm going to do that till August and then I'm going to start working with the 2's, 4's and 6's in readiness for next year('s tests) ...

There was limited evidence of sustained curriculum planning to address learning needs. Such curriculum planning overlapped syllabus and Tests contents. For literacy, the instruction was on writing and enhancing sentence structures and spelling, aspects of literacy. For mathematics, the discussion tended to focus on Number, as needing more improvement, and Space as needing more attention. Such aspects clearly relate to the Mathematics syllabus.

While focus on class performance on the Tests may achieve the goals of the National Plan to ensure all children are literate and numerate, the goals will only be achieved to the extent that the Tests are validated assessments of these constructs. As the following section shows, although there appeared to be high congruence between the operational literacy and numeracy focus of many teachers with the focuses on the literacy and numeracy Tests, teachers questioned the validity of the tests themselves. The lack of clear content validity and curriculum connection and diagnostic capacity of the Tests reduces their usability. Teachers also considered that the reports to parents had potential to worry and cause confusion, offering little useful information. (See Appendix B for example student report figure). It is evident nevertheless that the Tests outcomes are becoming more high stakes for schools, particularly with the publication of school outcomes in public forums. There is an underlying sense, even in such early implementation of public reporting and school comparisons, that the Tests outcomes, and preparation to improve test outcomes for the cohort as a whole, are becoming the focus, not the quality of the student learning experience to attain high outcomes.

The Queensland case study schools indicated limited use of data for tracking the progress of individual students. The schools did not seem aware of the potential for systematically examining such data, in conjunction with their own assessment judgments, to examine the effectiveness of different forms of intervention activities. Student achievement, needs and interventions appear to be operating as independent events, unable to inform future planning and resource allocation, within or across schools. In part this reflects the lack of usability of the item level information from the Tests outcomes.

3. Congruence of teacher judgment and external test data on student performance in literacy and numeracy and future directions

Congruence. One argument that supports the use of external standardised Tests is that often teachers underestimate or overestimate students' achievement. With only one or two exceptions for individual children, most of the teachers in the study felt that the Tests gave a more positive indication of profiled children's standards than they themselves held. Contrary to commonly held opinion, teachers did hold high expectations for students' work. Further, teachers expressed considerable concern for the level of knowledge that needed to be demonstrated to achieve the 'benchmark' level, and some cynicism about political issues with respect to funding implications from Tests outcomes. For them, many students in serious need of instruction, achieved above the benchmark standard — with the danger of complacency on the part of parents or the students that their work was going sufficiently well.

Well, overall the Tests weren't that surprising. I was a bit more enthused when I saw some of

the kids' results than I actually thought they were going to achieve.
... what they're making the benchmark and what they say is reasonable ... it's really low now
... the dotted lines is that national benchmark and some of those are ridiculous (see Appendix B for an example) ... if that is the national benchmark in Writing, we really are in trouble ...
you can be above the national benchmark, which sounds great and be way below average.
... being cynical, the benchmark is supposed to attract funding. So if you make the benchmark (really low) so there are very few people below it then you haven't got to fund it as well.
(Doesn't mean these) kids (above the benchmark) are literate ... there's no help for them.
I'm still not overly confident in their writing abilities, despite what the 3, 5, 7 Test said.
... his Spelling result was towards the high end ... after doing the ... spelling test at the start of the year, (it) is average ... not – sort of – at age. I don't consider it to the high end myself.

Overall, however, considerable congruence emerged between teacher judgment of literacy and numeracy achievement, the relative performance of profiled students and Tests outcomes. The teachers had considerable knowledge about student achievement in literacy and numeracy. Against the syllabuses, the literacy and numeracy frameworks of both teachers and the Tests are narrow. However, teacher assessment has a richness that could enhance the systemic collection of information on students' literacy and numeracy performance.

Using all data to improve student learning. We considered that teacher assessments could be used to provide additional information if three necessary and related preconditions were established, the first relating to the notion of a body of assessment evidence, and the second, the feedforward function of such evidence, including a role for 'data gurus'. As suggested earlier, teachers collect considerable information, both artefact and observation based, and portfolios are used in many sites as composites of collections, though not currently used from year to year to update student progress. More structured portfolios, explicitly connecting teacher understandings about curriculum, evidence, profiling and updating, to monitor progress over time could focus teacher attention on the nature of information that is being collected, and permit a more focused and systematic approach to enable teachers, students and parents access to a body of assessment evidence showing progression (regression or stabilising) over time. This evidence could extend beyond English and Mathematics, given recent policies and research (Wyatt-Smith & Cumming, 2003; Cumming, Wyatt-Smith, Ryan & Doig, 1998) emphasising the need to engage with the literacy and numeracy demands of all curriculum.

In regard to the second precondition, students considered at risk by teachers were not identified through the Statewide *Aspects of Literacy and Numeracy Testing* programs, a point raised earlier. This observation led some teachers to describe the benchmark minimum standard as 'too low'. Further, the teachers in the project identified how the reported Tests data, as returned to the school, were presented to them as confirming (or otherwise) their school performance. That is to say, the schools and teachers regard the reports as a type of feedback on the quality of their provision. In this situation, it is the Test evidence and subsequent reporting that are legitimated. Missing however, is the provision for schools and teachers to have a feedforward function which could occur if teacher information, also legitimated, could be used in identifying need. There is a strong case for this, given that the two sources of data are different, and yet in many cases, teacher and system reports of achievement are consistent, as reported earlier. More systematic and focused evidence collections could be used in conjunction with Tests data to inform both internal instructional planning as well as identifying students at risk. Further, given credence by the system, the combined data could be used to identify students needing special support.

In our report, we noted a number of system and within school changes that could affect use of the external Tests data in school, including the provision of better information and interpretative advice to schools and the need for more validity and item-level detail from such Tests. For example, major test developers are developing multiple choice tests where the choice of distracter by a child will provide insight into a common conceptual error or computational error held by the child. We also noted the key role played by the school leader in the effective use of external Tests data.

However, one of the key findings from our study was the need for a key staff coordinator or ‘data guru’ for effective use, even minimal effective use, in a school — the presence of a person with interest and ‘know how’.

... somebody in the school who has the motivation and the expertise to manipulate this data and do something with it.

(use of the Test data is) varied across schools ... linked very closely to the technology skills of people on staff. If you’ve got someone who’s interested in data analysis or interested in computer programming ... well ... those schools might have made advances but unfortunately in some schools there isn’t really anybody who’s got a bent for that ...

Several schools and teachers noted the advantage of having, or the need to have, a person on staff allocated the role responsibility of working with the Tests data, the ‘data guru’. This was also a recommendation that recurred in the previous research we reviewed on effective school use of achievement information (see, for example, Boudett, City & Murnane, 2006; Cromey & Hanson, 2000).

We recommend that all systems should identify a person within schools who can fulfil this role and allocate a responsibility to them accordingly. If necessary, specific support personnel may need to be available to clusters of small schools. External tests data appear to be an increasing part of Australian school life in the foreseeable future, given federal legislation and regulations already implemented. Its significance for schools is likely to increase. Australia is not alone in this phenomenon. The implementation of the ‘data guru’ or similar assistance will be essential for the data from such tests to meet their original goals, improving student learning through its effective use at the classroom and individual student level.

Conclusion

The project provides a foundation for providing policy advice to teachers about the evidential base that would be useful to them in working with system data, as well as their own assessments, to arrive at defensible judgments. It also points to professional learning opportunities for teachers including the design of challenging assessment tasks with explicitly stated assessment criteria and standards; a focus on the depth and range of curriculum literacies in teacher-generated assessments, and the profiling of student work and moderation processes.

The project data has also demonstrated the marked comparability of school-based teacher judgment and external Tests results. Beyond this, of particular note is that in many cases, teacher judgment of literacy and numeracy achievement, particularly for students judged ‘below’ level and ‘above’ level, exposed broader learning dimensions related to processing strategies and engagement than the information reported in the Tests results. Further, teacher identification of students as ‘at risk’ using school-based assessments uncovered a significant group of students who, despite achieving Tests results above the benchmark, were clearly struggling in aspects of literacy and numeracy.

This points to the vital role that teacher judgment of school based performance of literacy and numeracy needs to play as an augmentation to system data. More specifically, the project exposes how such teacher judgment, especially in relation to students deemed to be ‘at risk’, is a necessary and more robust means of working towards the objectives of the National Plan and gathering information regarding student learning and accountability than the Tests reports in and of themselves.

Finally the project clearly indicated the problematic nature of schools’ strategic use of the Tests information supplied by the QSA and highlighted areas how the school and individual teacher’s use of Tests data could be enhanced to impact learning in a number of ways. The timing of the Tests and the subsequent return of the Tests results at the end of the school year together with schools’ capacity to retrieve Tests data information in its present format were observed as major barriers for schools in working with the data to improve student learning. A related barrier was the ill preparedness of schools to track systematically individuals and

cohorts, using the data over time, in longitudinal analyses of student performance. There is a clear need for upskilling school leaders and system personnel in how to support schools seeking to optimise the potential of the existing system data, and to examine its coherence with locally generated assessment information.

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Appendix A. Language used by teachers to describe literacy and numeracy performance

Table A.1: Teacher Descriptions – Continuum of descriptions from high to low achieving performers

Literacy		
Above	Below	At
<p><u>Reading</u>: fluent; independent reader</p> <p><u>Reading comprehension</u>: can do a re-tell; make inferences</p> <p><u>Writing</u>: very good writer; eloquent vocabulary; mature; vocabulary nuances; formal language in report writing; structure of report writing; volume and quality; sentence structure</p> <p><u>Processes and strategies</u>: far deeper level; more detailed; problem solver; only have to tell once</p> <p><u>Character</u>: quirky; put her head down and some incredible things would come out; excellent creative thinking</p> <p><u>Imagination</u>: goes off on a different tangent and captures the reader's attention; insightful comments; model sense of humour; very quick witted; flair; initiative</p> <p><u>Attitude-approach</u>: brave; very confident; loves books; loves to write; well focused; perfectionist</p> <p><u>Other</u>: transfer from report to oral presentation; neat, tidy; excellent verbal communication</p>	<p><u>Reading</u>: inappropriate intonation; struggles to read words with more than 3 letters; difficulty in reading; problems with decoding; does not apply decoding strategies; difficulty in reading and comprehension; needs a lot of work on sight words and initial letter; sounds and alphabet; no initial sounds; no sight words or initial sounds; illiterate</p> <p><u>Reading comprehension</u>: low comprehension; difficulty with comprehension, finds it hard to understand; the questions and forming inferences about texts</p> <p><u>Writing</u>: struggles to spell words with more than 3 letters; trouble developing past one sentence; difficulty with sentence construction; finds it hard to structure a proper sentence; writes whole stories without punctuation; finds writing tedious so it takes ages to write things down; poor spelling; difficulty with spelling; very short answers; basically copying from the text; spelling...can't read what written even forgets what she's done. ... she'll forget what, she can't even read her own writing back to you.</p> <p><u>Processes and strategies</u>: lack of risk taking; "safe" person, conservative with her spelling .. she doesn't try to use sophisticated words she can't spell; slow in getting things going</p> <p><u>Character</u>: Goes off on a tangent; off the head type stuff</p> <p><u>Attitude-approach</u>: struggle with confidence; really tried hard in writing; just doesn't want to do it; lack of writing more than skill; quiet</p> <p><u>Other</u>: learning difficulties; doesn't know how to do anything; needs a lot of one on one; (has forgotten) last year's (work)); challenging behaviour to go along with his learning difficulties; handwriting is unreadable</p>	<p><u>Writing</u>: can do simple structured writing; structures sentences well</p> <p><u>Processes and strategies</u>: takes time to complete tasks; struggling to get through the class work</p> <p><u>Character</u>: (less) creativity; not very detailed</p> <p><u>Attitude-approach</u>: (needs) motivation and a good environment; does take pride in it; plods along; keen and interested; an avid reader however, comprehension is an issue; depends on her interest/motivation level</p>

Numeracy		
Above	Below	At
<p>Knowledge of area (number, space): (uses) number facts to concentrate on problem solving rather than ... working memory to work number facts out</p> <p><u>Conceptual understanding & Processes and strategies</u>: catches on to concepts; utilises strategies/tools modeled; speed; catches on very quickly; can clue on very quickly to concepts when they're introduced; works quickly; her intellect, able to handle and grasp well</p> <p><u>Attitude and approach</u>: confidence; never comes and asks how to do something; (catches on very quickly) then tends to rush through things, not read questions properly; actively participates</p> <p><u>Memory</u>: memory</p>	<p>Knowledge of area (number, space): difficult to apply common measures</p> <p><u>Conceptual understanding</u>: 'quadrilateral' ... just doesn't compute; trouble with abstract ideas and concepts; takes time to understand something new</p> <p><u>Processes and strategies</u>: needs more practice than brighter child gets blockages; can't work answers out in head; needs that one on one instruction to explain everything</p> <p><u>Attitude and approach</u>: intimidated by the boys (who are all fairly good at maths); confidence (lack); social issues; attitude affects application in numeracy; not really interested</p> <p><u>Memory</u>: memory problems; great difficulty remembering and processing Number facts</p>	<p><u>Processes and strategies</u>: (thinks) mathematically; tries to apply strategies</p> <p><u>Attitude and approach</u>: engaged student, will attempt everything; (consciously engaged) the whole way through the lesson; quite on the ball</p>

Appendix B: Sample of Queensland report on Literacy and Numeracy Tests to parents
 Source: Queensland Studies Authority. (2007). *2007 Test reporting handbook*. (Brisbane: QSA), p.5. (<http://www.qsa.qld.edu.au/downloads/assessment/3579_handbook_reporting_07.pdf>) (Accessed 8 July 2008)

