

What is the place for NAPLAN

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My submission is in two parts addressing separate issues in the collection and use of data. The first relates to national assessment, and the second (provided as an attachment) is to describe individual and group assessments that have as a linking foundation a commitment to evidence-based practice in literacy data collection and instruction.

My intention in this first submission is to support national assessment. My focus is largely on literacy, as that has been the major domain of my work. In brief, my position is that national assessment is essential. The current format of NAPLAN may not be ideal, but it is certainly better than no national assessment at all. Self-serving and specious arguments should not be allowed to threaten this vital initiative. Worthwhile additions would include a national early identification scheme for Year One students, and providing greater transparency concerning the test raw scores that correspond to the various bands.

Some have argued that the literacy test is too limited, focussing as it does only on reading comprehension. While it might be helpful to assess other important components of reading, such as decoding and fluency, I see the main function of NAPLAN as acting as a national thermometer. It is to provide an indication as to the health of the patient – reading development across the nation's students. Widening the test is both unnecessary and wasteful. It is unnecessary because when teachers are adequately retrained to use reading assessment properly, they can do the diagnostic testing on those students whose NAPLAN results are worrying. Making NAPLAN more extensive would take up additional student time, and would be a waste of time for all those students whose progress is quite adequate.

Before NAPLAN:

There is considerable interest and controversy in the Australian community concerning how our students are faring in the task of mastering reading, and how well our education system deals with teaching such a vital skill. Until state and subsequently national scale assessment commenced, we had largely small scale and disparate findings from researchers employing differing metrics to gauge how our students were progressing. Thus it was very difficult to make any judgements as to how students performed across the nation. Even the state based assessments that preceded NAPLAN were sufficiently different from each other to make comparisons fraught. Different emphases, formats, and scoring protocols were common. Defining where to establish the bands of competence varied significantly across studies. What does constitute an acceptable level of competence for this test or that test? Is it 50% correct - 80%, 25%?

Looking back one can see signs of this variation:

The Australian Government House of Representatives Enquiry (1993) estimated that between 10-20% of students finish primary school with literacy problems. In Victoria, about 16% were labelled reading disabled in two studies (Prior, Sanson, Smart, & Oberklaid, 1995; Richdale, Reece, & Lawson, 1996). Victorian Budget estimates (Public Accounts and Estimates Committee, 1999) anticipated that for the year 2000, 20% of Year 1 students would require the Reading Recovery program. Further concern was expressed that, after their Year Three at school, students with reading problems have little prospect of adequate progress (Australian Government House of Representatives Enquiry, 1993). Providing additional foundation for that fear was a Victorian study (Hill, 1995) that noted little discernible progress in literacy for the lowest 10% between Year Four and Year Ten. According to the Australian Council for Educational Research, more than 30% of Australian children entering high school (mainly in government and Catholic schools) could not read or write properly (“Our desperate schools”, 2000).

In more recent times, the Victorian Auditor General (2003) noted that Reading Recovery was being provided to on average 40-50% of Year 1 students, and in 2009 he reported that the budget for that program had climbed even higher each year since then. This gave pause for concern. How could so many students after a year or so of reading instruction require such extensive and costly remedial help? Could it be that initial reading instruction was not adequate? The introduction of state and then national assessment provided larger samples than were available during earlier times, and a troubling picture began to emerge.

National and international assessment

The Australian Bureau of Statistics in 2008 reported that almost half of all Australians aged 15-74 years had literacy skills below the level necessary to participate at even a basic level in our complex society. For example, they may have trouble managing transport timetable, completing basic forms, reading medicine labels, or interpreting weather maps. This indicates that any problems we have with literacy are not entirely new. How did we arrive at this position? One reason is that before broad-scale assessment our community was in the dark about the true state of affairs.

Reinforcing that alarming finding an OECD study (Programme for the International Assessment of Adult Competencies, PIAAC) revealed that:

Many adult Australians do not possess the literacy and numeracy skills necessary to participate fully in modern life and work. ... Results from 2011-12 show that about 7.3 million or 44 per cent of adult Australians achieved in the lowest two bands for literacy, while about 8.9 million or 55 per cent achieved in the lowest two bands for numeracy (ACER, 2013).

There is clearly a concern that both national and international comparisons have not been flattering to us. There is a public perception that either educational outcomes for students have been further declining or that the education system is increasingly less able to meet rising community and employer expectations (Jones, 2012).

Parental concerns about literacy are becoming increasingly evident. In the *Parents' Attitudes to Schooling* report (Department of Education, Science and Training, 2007), only 37.5% of the surveyed parents believed that students were leaving school with adequate skills in literacy. There has been an increase in dissatisfaction since the previous *Parents' Attitudes to Schooling* survey in 2003, when 61% of parents considered primary school education as good or very good, and 51% reported secondary education as good or very good. About 88 per cent of parents supported the use of a standard national process for assessing the skills of students. This level of NAPLAN support is markedly different to that expressed by many employed within the education field.

Press reports suggest that employers too have concerns about literacy development among young people generally, not simply for those usually considered to comprise an at-risk group (Australian Industry Group, 2016; Business Council of Australia, 2003; Collier, 2008).

This scrutiny of public education is not new; however, the focus in recent times has shifted as the real rate of student performance becomes common knowledge. Concerns that have arisen over recent years include apparent national and state test score declines, unflattering international achievement comparisons (ACER, 2010), the failure of large funding increases to produce discernible results (DEECD, 2012; Leigh & Ryan, 2008a; Nous Group Consortium, 2011), high school-dropout rates, and a perception that employment skill demands are not being adequately met by the education system (Collier, 2008; Levin, 1998). The press has displayed increased interest in highlighting these issues, thus further raising community awareness. Thus the expanding role for both national and international assessments has brought the issue further to public attention.

There appears now to be a public perception that there are serious problems in the education system's capacity to meet their expectations. In the past, some teacher organisations have argued that the issues of student progress should be left in the hands of teachers, and that the school performance of students is quite acceptable compared with that of other nations. In my work - initially as a teacher, then as a school educational psychologist, and eventually in the RMIT Psychology Clinic over a forty year period, I experienced many examples of parents expressing dismay that their early concerns about their child's progress were deflected by teachers. Usually, it was not until Year 4 or above that schools reported to

parents that their child was struggling. This delay makes effective assistance far more difficult. One finding was that it takes four times as many resources to resolve a literacy problem by Year 4 than it does in Year 1 (Pfeiffer et al., 2001). This problem only intensifies as students approach upper primary and secondary school (Wanzek et al., 2013). Equally troubling was the Lesnick, Goerge, Smithgall, and Gwynne (2010) longitudinal study, which found that third grade students who were struggling with their reading had four times the rate of early school leaving compared with average readers.

In Australia, the broad scale assessment common for many years in the USA and GB is a more recent phenomenon. Begun initially at a State level, it has expanded to a national level - *National Assessment Program Literacy and Numeracy* (NAPLAN) and international level - the *Progress in Reading Literacy Study* (PIRLS) and the *Programme for International Student Assessment* (PISA).

What have recent analyses demonstrated?

1. National

In the 2008 NAPLAN assessment, 19.6 per cent of Australian students were deemed at or below the national minimum standard in reading, and 18.7 per cent were at or **below** the standard in numeracy (Australian National Audit Office, 2012). This means that those below the national minimum standard require assistance, and so will some of those at the national minimum standard. How those national minimum standards are derived is unclear. The standards are supposed to be a snapshot of typical achievement. But it is not clear how typical achievement is defined. On what basis is a score of, say, 16/40 questions correct on a NAPLAN test considered typical achievement? Against which external criterion? This lack of information makes interpretation of results difficult. Another way of reporting the same results is to provide the figures for students who are at or **above** the national minimum standard. For 2012, the figure is 92% overall. This sounds much more satisfactory than around 19% at or **below** the standard, but how does it fit with the figures found in other studies that suggest, for reading, around 20% - 30% of students struggle? Something doesn't compute.

Since 2008 there has been little change in average results – some national scores for some domains and for some Year levels have improved, while others have declined. Of course, there is also variation across states, and most dramatically, across socio-economic status and the indigenous/ non-indigenous divide (Australian Curriculum, Assessment and Reporting Authority, 2012).

2. International

In 2012, the international PIRLS tests revealed that almost 25 per cent of Year 4 children in Australia failed to meet the standard in reading for their age. The report released by the Australian Council for Educational

Research (ACER, 2012) reveal disappointing results for Australia in this latest international study of mathematics and science achievement, and in Australia's first ever international assessment of reading at primary school level. Australian Year 4 students ranked 27th among the 53 nations involved, outperformed by other English-speaking nations such as England, the US and New Zealand. As this is the first time Australia has been involved in PIRLS, some consternation has followed the results.

Other international data (PISA) indicated a decline in reading (2000–2009) and mathematics (2003–2009) (Australian National Audit Office, 2012).

Although the OECD average for reading literacy has not changed between 2000 and 2009, ten countries have significantly improved their performance over this time, while five countries, including Australia, have declined significantly. ... Australia's reading literacy performance has declined, not only in terms of rankings among other participating countries but also in terms of average student performance. The mean scores for Australian students in PISA 2000 was 528 points, compared to 515 for PISA 2009. A decline in average scores was also noted between PISA 2000 and PISA 2006, when reading literacy was a minor domain (ACER, 2010).

Releasing the results, ACER Chief Executive Professor Geoff Masters said, "To say the results are disappointing is an understatement (ACER, 2012, p.1)".

Learning to read written English.

The English written language is an amalgam of numerous other languages, such as Old English, Latin, Greek, German, French, and Old Norse. Because the different languages use differing letter combinations for the same spoken sound, reading written English is more difficult than in countries like Spain and Italy where one letter makes one sound (more or less). So, picking up reading unaided is a very difficult task. What then is a reasonable rate of reading difficulty? Is a 20-30% rate inevitable? Well, no. According to research, we should not be content until the reading difficulty rate falls to around 5% (Fuchs & Fuchs, 2005; Torgesen, 1998). Until then, we are not teaching reading well enough, and many students do not have an inbuilt resistance to learning how to read, but should be considered as *instructional casualties*.

This quote is from an interview with G. Reid-Lyon, Past-Chief of the Child Development and Behavior Branch of the National Institute of Child Health & Human Development, National Institutes of Health, USA.

When we look at the kids who are having a tough time learning to read and we went through the statistics, thirty-eight percent nationally, disaggregate that, seventy percent of kids from poverty and so forth hit the wall. Ninety-five of those kids are instructional casualties. About five to six percent of those kids have what we call dyslexia or learning disabilities in reading. Ninety-five percent of the kids hitting the wall in learning to read are what we call NBT: Never Been Taught. They've probably been with teachers where the heart was in the right place, they've been with teachers who wanted the

best for the kids, but they have been with teachers who cannot answer the questions: 1) What goes into reading, what does it take? 2) Why do some kids have difficulty? 3) How can we identify kids early and prevent it? 4) How can we remediate it? (Boulton, 2003a).

This second quote is from an interview with Grover Whitehurst, Ex-Director (2002-08), Institute of Education Sciences, U.S. Department of Education, USA.

So, we have a difficult code, we have a neural system that for some children is not optimal for dealing with this code, and then we throw them an instructional system, a teaching system; teachers who don't understand what the code really is or how it needs to be conveyed. And so the teacher is suggesting you should do this when in fact the child should be doing that. You can sample first or second grade classrooms around the country and you will still find, despite what we know about the process of reading and have learned over the past twenty years, you will still find that teachers for a first grader who is struggling to sound out a word who will discourage the child from doing that, and encourage the child to look at the pictures in the book and guess what that word means. Good readers don't guess, good readers sound out almost every word on the page. And so the teacher is saying you solve the task this way when in fact the task has to be solved in an entirely different way. And that can not help but confuse children. So, non-optimal instruction, and in some cases simply misleading instruction, is a significant part of the problem (Boulton, 2003b).

Throwing money in the wrong direction

The Victorian Auditor General in 2009 reported that despite investing \$1.19 billion in education initiatives over the previous six years there has been little improvement in average literacy and numeracy achievement. Leigh and Ryan (2011) showed that productivity (real expenditure vs student performance) decreased by 73 per cent between 1964 and 2003. This major component of this increase in expenditure has been in decreasing class sizes (a strategy shown elsewhere to be ineffective) (Jensen, 2012). It is now becoming clear that at a federal level learning must be shown to be a consequence of expenditure, and that requires a nationally based assessment system.

National and international assessments have the potential to provide some sense of how our children are faring in their education, or alternatively, how well our system teaches our children to read. However, there are limitations to the value of this style of testing, particularly when the only tasks included are those intended to assess reading comprehension. It is unquestionably a major function of reading, but not the only important component. The science of reading development has emphasised as additional areas: decoding, vocabulary, phonemic awareness, and reading fluency. To address this concern, one of the recommendations of the 2005 National Inquiry into the Teaching of Literacy (NITL) was that the NAPLAN “be refocused to make available diagnostic information on individual student performance, to assist teachers to plan for the most effective teaching strategies”. An example of a different focus for assessment is the Phonics Screening Check (Department of Education Schools, 2013) introduced into GB over the past couple of years (again against wide teacher complaint). It is held in mid-Year One and is designed to confirm whether students

have learnt phonic decoding to an appropriate standard. As phonics is now considered an essential component of early reading instruction, this assessment is also an examination of how well schools are teaching reading, in addition to providing vital information to parents at this early stage. As a result 43 per cent of pilot schools were able to identify pupils with reading problems of which they were not already aware. This means that 235,000 pupils will now receive additional reading support from their schools, that might not have eventuated otherwise. Sub-standard results for a student are a red flag to schools to intervene early before the failure cascade called the Matthew Effect (Stanovich, 1986) becomes entrenched. Of course, when formal assessment does not commence until Year 3 (as in the NAPLAN), this opportunity is not available. Of course, this outcome does indicate how assessment alone does not have an impact on student progress. The will and the means to intervene efficiently and effectively must also accompany national assessment.

So, early assessment (assuming it leads to intervention) can have a prophylactic effect on reading failure, and is worthy of support. As to widening the scope of the NAPLAN reading assessment as the NITL recommended, I have a concern that it may make the assessment unwieldy. I agree entirely that diagnostic assessment is crucial for those students shown to be experiencing difficulty, but I am not sure that NAPLAN is the optimal vehicle for doing so.

Benchmark transparency

Because the benchmarks chosen for the various levels of proficiency in national assessments are not transparent, they are open to manipulation. Such occurrences have been reported in GB and the USA in the past (Adkins, Kingsbury, Dahlin, & Cronin, 2007). Also problematic is a slightly different issue - cheating by teachers and principals in the administration and scoring of tests (HuffPost Education, 2011; 2013). In recent times, similar claims of cheating and inappropriate test administration have been made in Australia. "Over the past three years, 164 schools around the country have sought to undermine the annual NAPLAN test by pressuring parents to withdraw their children, assisting students to complete the exam, or storing papers insecurely ahead of testing day" (Tomazin, 2013).

There can even be marked differences in results reported nationally and locally: "According to the National Assessment of Educational Progress (NAEP), the percentages of students who are proficient in basic reading and math are roughly half of the rates reported by the states" (Stone, 2013, p.5). This in itself makes a powerful case for national rather than solely state-based or locally-based assessments.

Over recent years in the USA, eight states had their reading and/or maths tests become significantly easier in at least two grades (Adkins, Kingsbury, Dahlin, & Cronin, 2007). The report, entitled *The Proficiency*

Illusion, also found that recent improvements in proficiency rates on US state tests could be explained largely by declines in the difficulty of those tests.

So, a weakness of such opaque data is the potential for benchmarks to be manipulated to show governments of the day in the best possible light. There are examples in which benchmarks have been so low as to be at the level of chance. For example, when four multiple choice items constitute the response set for students, a 25% mark could be obtained by chance alone. Surely benchmarks would never be so low that chance alone could produce a proficiency level?

In 2006, the results needed to meet (Australian) national benchmarks for students in Years 3, 5 and 7 ranged from 22% to 44%, with an average of less than 34%. Year 3 students needed to achieve only 22% for reading, 39% for numeracy, and 30% for writing to be classified as meeting the minimum acceptable standard (Strutt, 2007, p.1).

Recently in Great Britain (Paton, 2008), the Assessment and Qualifications Alliance exam board admitted that standards had been lowered to elevate scores in 2008. In one exam paper, C grades (a good pass) were awarded to pupils who obtained a score of only 20%. Perhaps, having learned from this event, in the 2012 Phonics Screening Test, mentioned earlier, the pass mark was made public at 32 correct out of 40 questions, which is 80% correct.

Informal assessment

If community interest in literacy has been sparked, and there is public concern about the validity of the national broad scale assessment model, it is important for educators to offer guidance about high quality assessment. Part of the current literacy problem can be attributed to educators because they have not offered this high quality assessment in their schools to monitor progress. There has been a tendency to rely on informal assessment that often lacks validity and reliability (Watson, 1998), and unhelpful techniques like miscue analysis (Hempenstall, 1998), and the perusal of student folios (Fehring, 2001).

In a three-year Australian study:

Wyatt-Smith and Castleton investigated how Australian teachers made judgments about student writing using literacy benchmark standards (Department of Employment, Education, Training and Youth Affairs [DEETYA] 1998; Wyatt-Smith and Castleton 2005). ... Teachers made judgments based on their own experience; explicit literacy standards were not part of teachers' experience, and teachers accepted that their "in head" standards varied from year to year and from class to class" (Bolt, 2011, p.158).

Studies by Feinberg and Shapiro (2009) and by Bates and Nettlebeck (2001) each reported that informal

assessments were significantly less accurate for struggling readers when compared with formal assessment, and most teachers' over-estimation among students with low achievement scores was greater than a year of reading age. In the Madelaine and Wheldall (2003) study, Australian teachers not only failed to identify 10% of the struggling students, but 18% of them also falsely reported as struggling some students who were not doing so. Limbos and Geva (2001) found that teachers tended to ascribe adequate reading skills to struggling readers on the basis of their reasonable oral language skills. That is, without adequate reading assessment, teachers can be fooled into incorrectly assuming that a student's literacy must be OK because they express their thoughts well in speech.

The Productivity Commission in 2012 expressed concern that:

Because teachers are kept in ignorance of specific learning difficulties, students are under diagnosed and under supported. Teachers are not able to recognise the signs which should lead to testing by a psychologist or specialist in specific learning difficulties. Furthermore, they often don't know who the student should be referred to. (sub. DR76, p. 2) (Productivity Commission, 2012, p.284).

If every teacher did implement a standard, agreed upon assessment schedule, based upon the current evidence on reading development, then one might argue against the need for national assessment. Data could be collected from schools, and would be comparable across the nation - based upon a similar metric. Of course, the problem of variation in teachers' test presentation skills would remain. An important aspect of the current system is to provide consistency for the more than 100,000 students who change schools across State/Territory boundaries, sectors and regions (National Inquiry into the Teaching of Literacy, 2005).

The assessment of important literacy components can supply valuable information not available in the current broad scale testing program. For example, assessment can assist in the identification and management of students at-risk even before reading instruction commences. They can also help identify those making slow progress at any year level. This is especially important given the usually stable learning trajectory from the very early stages. If specific interventions are implemented, appropriate reading assessment can provide on-going information about the effectiveness of the chosen approach. There is an important question implicit in this potentially valuable activity. What sorts of assessment are likely to be most beneficial in precluding reading pitfalls and enhancing reading success? In this submission, the emphasis is directed towards assessment of those aspects of reading that have been identified by research as critical to reading development.

From assessment to intervention

It is recognised that literacy assessment itself has little intrinsic value; rather, it is only the consequences flowing from the assessment process that have the potential to enhance the prospects of those students currently struggling to master reading. Assessment also allows for the monitoring of progress during an intervention, and evaluation of success at the end of the intervention. However, the initial value relates to the question of whether there is a problem, and if so, what should be done. What should be done is inevitably tied to the conception of the reading process, and what can impede its progress. How do educationists tend to view the genesis of reading problems?

Perceptions of literacy problems and causes

Alessi (1988) contacted 50 school psychologists who, between them, produced about 5000 assessment reports in a year. The school psychologists agreed that a lack of academic or behavioural progress could be attributed to one or more of the five factors below. Alessi then examined the reports to see what factors had been assigned as the causes of their students' educational problems.

1. Curriculum factors? No reports.
2. Inappropriate teaching practices? No reports.
3. School administrative factors? No reports.
4. Parent and home factors? 10-20% of reports.
5. Factors associated with the child? 100%.

In another study this time surveying classroom teachers, Wade and Moore (1993) noted that when students failed to learn 65% of teachers considered that student characteristics were responsible while a further 32% emphasised home factors. Only the remaining 3% believed that the education system was the most important factor in student achievement, a finding utterly at odds with the research into teacher effects both in Australia and overseas (Cuttance, 1998; Hattie, 2009; Hattie, Clinton, Thompson, & Schmidt-Davies, 1995).

This highlights one of the ways in which assessment can be unnecessarily limiting in its breadth, if the causes of students' difficulties are presumed to reside solely within the students, rather than within the instructional system. Assessment of students is not a productive use of time unless it is carefully integrated into a plan involving instructional action.

When the incidence of failure is unacceptably high, as in the USA, GB, and Australia, then an appropriate direction for resource allocation is towards the assessment of instruction. It can only be flawed instruction that intensifies the reading problem from a realistic incidence of reading disability of around 5% (Brown & Felton, 1990; Felton, 1993; Marshall & Hynd, 1993; Torgesen, Wagner, Rashotte, Alexander, & Conway, 1997; Vellutino et al., 1996) to that which we find of 20 - 30% (or higher). A tendency can develop for

victim blame. "Learning disabilities have become a sociological sponge to wipe up the spills of general education. ... It's where children who weren't taught well go (p.A1)" (Lyon, 1999).

Evidence-based assessment and practice

There is an increasing recognition that an education system must constantly assess the quality of instruction provided in its schools, and that it should take account of the findings of research in establishing its benchmarks and policies. "Thus the central problem for a scientific approach to the matter is not to find out what is wrong with the children, but what can be done to improve the educational system" (Labov, 2003, p.128). The development of an Australian national English curriculum is an example of this emerging system interest. Up to this time, education systems in Australia have been relatively impervious to such findings (Hempenstall, 1996, 2006), lagging behind significant (if tenuous) changes in the USA with Reading First (Al Otaiba et al., 2008) and in Great Britain with the Primary National Strategy (2006).

Unfortunately, Australia has been lax in evaluating the effectiveness of the instructional approaches it has supported (Rorris et al., 2011).

Re students from disadvantaged groups, learning disabilities, indigenous, ESL, low SES, remote areas. *Weak monitoring and reporting* inhibits the capacity of school systems to build sector knowledge of the relevance and context of improvement strategies that have demonstrated effectiveness. This means there is a lack of evidence-based links for programs and their effects on learning (254). ... There are insufficient data available to establish to what extent existing programs are effective because few have been evaluated, and fewer still have been evaluated with student outcomes as a focus" (p.87).

The Victorian Auditor-General (2009, 2012) found that there "has been no system-wide assessment of the ongoing effectiveness of key elements of the approach, such as the Reading Recovery intervention" (p.5) Further, "DEECD does not consistently use monitoring, program reviews and evaluations" (p.57).

Clearly, the education system failed to properly evaluate the impact of the programs it has implemented.

One proposed reason offered by the Productivity Commission (2012)

... in order to 'save face' policymakers may continue with programs that are demonstrably poor investments rather than abandoning underperforming policies because - in acknowledging the results of any evaluation - they might be accused of 'failure'". ... However, changing policies without the benefit of evidence offers no assurance that outcomes will improve. In fact, a cycle of constantly changing policies can be potentially destructive where it fosters instability and reduces confidence (particularly within disadvantaged communities) in the education system. Evaluation is the first step towards greater continuity in the policy and institutional landscape — a necessary, although not sufficient, condition for achieving sustained advances in education outcomes. As such, it is essential that policymakers subject their initiatives to proper analysis, and do not move on to another policy idea before evaluations can be conducted (p.299).

One means of encouraging greater scrutiny is being able to examine the impact programs have on student performance at the national level.

Even allowing that the major problem for the education system lies in the realm of instruction, particularly in the initial teaching of reading, individual student assessment remains of value. It is, of course, necessary as a means of evaluating instructional adequacy. Beyond that, there is great potential value in the early identification of potential reading problems, in determining the appropriate focus for instruction, in the monitoring of progress in relevant skill areas, and with the evaluation of reading interventions. It is the assumption in this paper that decisions about assessment should be driven by up-to-date conceptions of the important elements in reading development.

The extent of the literacy problem has been known to literacy researchers for many years, and a group of 26 Australian researchers prompted the 2005 National Inquiry into the Teaching of Literacy (NITL). The findings included 20 recommendations for reform – none of which was adopted by the government of the day or since.

It is more difficult for governments and education departments to ignore the results of national and international assessments; thus, we are beginning to see strong words and (perhaps) action, but how and to what effect become crucial questions.

In 2012, a larger group of researchers (with including many of the original 2004 group) responded to recent findings of national and international assessment with a reminder of what is known about the causes of the literacy problem:

In an open letter to federal, state and territory education ministers and their opposition counterparts, a group of 36 educators, scientists and clinicians call for a "vast shake-up at all levels of teacher training" to ensure children are taught to read properly. The letter was prompted by the results in the international Progress in Reading Literacy Study tests last week that revealed almost 25 per cent of Year 4 children in Australia failed to meet the standard in reading for their age, to the shock of many educators and governments. Reprising the letter they sent to then education minister Brendan Nelson in 2004 that resulted in the independent inquiry, the researchers admonish governments for their collective failure to heed the evidence and advice for almost a decade on the most effective way to teach reading (Ferrari, 2012).

A segment of that letter is reprinted below:

We have significant problems in education from the beginning stages, in that we do not teach reading well. We do not use approaches known to be effective in initial reading instruction. As a

nation, we do not routinely screen students entering school for underdeveloped pre-reading skills critical for facilitating learning to read, nor do we monitor student progress in learning to read in a manner that allows for successful early intervention with students failing to progress. We do not redress our early system failure during the middle primary years. In the secondary years, we have a significant group of disillusioned students who have lost contact with the curriculum because of these earlier issues. We tend to focus attention and resources upon compensatory educational options instead of emphasising the resolution of our earlier mistakes. The sequence of initial failure-shame-frustration-disengagement-dropout is predictable and ongoing. Currently, it is being addressed piecemeal, as if they were separate problems.

We need a vast shake-up at all levels of teacher training. By turning our gaze to educational practices supported by empirical research we can make optimum use of our resources to complete the task with effectiveness and efficiency (Colheart, Hemenstall, Wheldall, et al., 2012).

Inadequate teacher training of evidence-based assessment and instruction.

There is an increasing recognition that teacher training has produced a teaching force that has not been well prepared to provide effective teaching to our diverse student community (Malatesha Joshi et al., 2009). Why this is so is a long story, but a history is available at <http://www.educationnews.org/articles/the-whole-language-phonics-controversy-a-historical-perspective.html>

Evidence for this assertion follows:

All too often Victoria's teacher training, referred to as pre-service education, falls short of the demands of today's schools. While there are many providers, quality outcomes are inconsistent. Principals report that in the case of more than one-third of teachers, insufficient pedagogical preparation hinders student instruction (p.10). ... At present less than 30 per cent of principals feel new teachers are well prepared to communicate with parents, manage classroom activities well, and provide effective support and feedback to students, which are all largely recognised as important skills for effective teaching and learning. Only around half of graduates report satisfaction with the preparation provided by their courses (DEECD, 2012, p.11).

A survey by Rohl and Greaves (2005) reported that 36% of beginning primary teachers felt unprepared to teach reading and 57% unprepared to teach phonics. Senior staff at their schools were more pessimistic, considering that 49% of these beginning teachers were unprepared to teach reading, and 65% unprepared to teach phonics. These figures on unpreparedness rose dramatically (77% - 89%) when the beginning teachers were confronted with diverse learners (those with disabilities or learning difficulties, indigenous and low SES students, and students whose initial language was not English). Other Australian studies by Maher and Richdale (2008) and by Fielding-Barnsley (2010) noted similar results.

Several other Australian studies also support these findings:

Taken together, these results indicate that for this cohort of pre-service teachers, entry knowledge of graphological/phonological rules and terminology tends to be fragmentary, suggesting that without

further instruction in domain-specific knowledge in the area of phonological awareness and phonics, they may have difficulty providing systematic and explicit beginning reading instruction. This supports findings from previous studies which found that many pre-service and in-service teachers have limited knowledge of phonological awareness and phonics (e.g. Fielding-Barnsley & Purdue, 2005; Moats & Foorman, 2003; Rennie & Harper, 2006; Rohl & Greaves, 2005). ... The written comments have also highlighted, unintentionally, the fact that a number of the pre-service teachers in the present study, like those in reported by Zipin and Brennan (2006), showed deficiencies in personal literacy skills with regard to grammar, punctuation, and sentence structure (Fisher, Bruce, & Greive, 2007, p.82-3, 85).

This situation was recognized in the 2005 recommendations of the National Inquiry into the Teaching of Literacy: “1. The Committee recommends that teachers be equipped with teaching strategies based on findings from rigorous, evidence-based research that are shown to be effective in enhancing the literacy development of all children”. Unfortunately, as with all the other recommendations of this important report, it was ignored, and the report removed from the Australian Government website. It can still be read at the website of the Australian Council for Educational Research – see <http://tinyurl.com/d6v2v9y>

One reason proposed for this situation is the failure of education faculties to take the teaching of reading seriously in their course planning.

Responses to the national survey indicate that in almost all of the nominated courses, less than 10 per cent of time in compulsory subjects/units is devoted to preparing student teachers to teach reading. They also indicated that in half of all courses less than five per cent of total instructional time is devoted to teaching reading (National Inquiry into the Teaching of Literacy, p.37).

Teacher quality

Creating further concern is the trend towards accepting into teacher training students whose aptitude is substantially lower than in the past.

We find that the aptitude of new teachers has fallen considerably. Between 1983 and 2003, the average percentile rank of those entering teacher education fell from 74 to 61, while the average rank of new teachers fell from 70 to 62. We find that two factors account for much of the decline: a fall in average teacher pay (relative to other occupations) and a rise in pay differentials in non-teaching occupations (Leigh & Ryan, 2008b, p.141).

Further, “Some of the biggest teaching schools are accepting entry-level students with TER scores so low as to be equivalent to failure in other states” (Senate Employment, Workplace Relations and Education Committee, 2007, p.7).

One consequence has been an apparent decline in student-teacher literacy to the extent that their capacity to teach in an evidence-based manner has been questioned.

The literacy competency of student teachers was raised as an issue in all focus group discussions. Respondents reported that many students lacked the literacy skills required to be effective teachers of reading. These students needed help to develop their foundational literacy skills. They also needed explicit teaching about meta-linguistic concepts, for example, phonemic awareness, phonics, and the alphabetic principle (NITL, p.33).

This led to another recommendation:

Recommendation 14

The Committee recommends that the conditions for teacher registration of all primary and secondary graduates include a demonstrated command of personal literacy skills necessary for effective teaching, and a demonstrated ability to teach literacy within the framework of their employment/teaching program (p.35).

So, there is a problem with teacher training that, unless overcome, will hinder efforts to raise the standards of school education. Stronger accreditation guidelines for training institutions have been requested for a number of years. There is some evidence of that occurring, and also recently attention is beginning to be directed at the entry criteria into teacher training courses.

Resistance to NAPLAN

A problem threatening the NAPLAN at present is the resistance from a number of teachers and teacher organisations either to national assessment per se, or to its current format. Some of this resistance has led to unprofessional behaviour, such as attempting to “teach to the test” and worse. The Australian Curriculum, Assessment and Reporting Authority (ACARA) noted cheating and other substantiated breaches of general administration protocols during NAPLAN tests over several years and in all states. These events, though modest considering the breadth of the exercise, have increased from 63 in 2010 to 74 in 2011, and to 98 in 2012 (Australian Curriculum, Assessment and Reporting Authority, 2013). The increases are of concern because they parallel events in both GB and the USA that have become much more widespread.

Last year an investigation into the largest ever cheating scandal in US schools revealed rampant, systematic cheating on test scores in Atlanta’s public schools. It found that 178 teachers and principals in 40 of Atlanta’s 100 public schools cheated on state standardized tests in 2009. It uncovered instances of cheating dating back to 2001. The report said that extreme pressure to boost test scores drove teachers and principals to cheat. An investigation is ongoing into high erasure rates on mathematics and reading tests in more than 100 schools in Washington DC. In England last year, even exam boards were caught cheating by providing test questions to teachers months before the exams were due. In 2009, students from 70 schools had their Sats test results annulled or changed because of cheating by teachers or bungled handling of the exams. Reported cheating incidents are notoriously under-estimates of the real situation. “It’s just the tip of the iceberg, I think,” says US testing expert Professor Tom Haladyna, “The other 80 percent is being hidden” [Atlanta Journal-Constitution, 21 June 2009] (Cobbald, 2012).

In the USA, the biennial National Assessment of Educational Progress (NAEP) is considered the gold standard, first because it is divorced from the decisions about student retention or teacher/principal job security that are consequences of state assessments. Second, the procedures used by the employed independent contractors who oversee the administration and transportation of the assessments make it practically impossible for teachers and principals to change the students' work on these tests.

I do not intend to counter the many calls for an end to NAPLAN, as I believe they arise out of ignorance, self-serving, or fear. An excellent rebuttal of many of the criticisms (Righting some wrong thinking on NAPLAN) was published recently in *The Age* by Philip Henseleit, and can be found at <http://www.theage.com.au/comment/righting-some-wrong-thinking-on-naplan-20130515-2jmns.html>

We can and must teach reading more effectively. So few teachers have been trained in the evidence-based reading instruction espoused in almost every significant report over the past decade (National Early Literacy Panel, 2008; National Inquiry into the Teaching of Literacy, 2005; National Reading Panel, 2000, Primary National Strategy, 2006; Rose Report, 2006). Few teachers know how to assess reading in a scientific manner, or know how and why to read and interpret research and data. Today, in an era of professional accountability, teaching remains a craft rather than a science, a guild rather than a profession. Many teachers have been inculcated with a constructivist philosophy asserting that students will necessarily interpret instruction in their own unique ways. This has arisen in their training, and teachers have been diverted from effective literacy instruction by the rhetoric about constructivism, multi-literacies, inclusion, differentiated instruction, personalised learning, critical literacy, brain-based learning, discovery learning, whole language, and learning styles. To overcome these obstacles to the effective teaching of reading will not be easy, but one pre-condition is that we have regular data nationally about the progress of our teaching efforts.

It's hardly a revelation to argue that the adoption of evidence-based practice (EBP) in some other professions is far advanced in comparison to its use in education. That's not to say that the resistance displayed by some teacher organizations towards the adoption of EBP has not been evident in the early stages of its acceptance by those professions, such as medicine and psychology. However, as these principles have been espoused in medicine and psychology since the early nineties, a new generation of practitioners have been exposed to EBP as the normal standard for practice. This has occurred among young practitioners because their training has emphasized the centrality of evidence in competent practice.

In education, unfortunately, there are few signs of this sequence occurring. Most teachers-in-training are not exposed to either the principles of EBP (unless in a dismissive aside) or to the practices that have been

shown to be beneficial to student learning, such as the principles of instructional design and effective teaching, explicit phonological instruction, and student management approaches that might be loosely grouped under a cognitive-behavioural banner.

In my view, until educational practice includes EBP as a major determinant of practice, then it will continue to be viewed as an immature profession. It is likely that the low status of teachers in many western countries will continue to be the norm unless and until significant change occurs. A fundamental component of professions is the systematic collection of data to inform decision-making. The acceptance by the teaching profession of this tenet of EBP may be promoted by the gradual acceptance of national assessment.

I conclude by re-affirming my support for national assessment, but with modifications consistent with the recommendations of the National Inquiry into the Teaching of Literacy (2005). These include:

9. The Committee recommends that the teaching of literacy throughout schooling be informed by comprehensive, diagnostic and developmentally appropriate assessments of every child, mapped on common scales. Further, it is recommended that:

- **nationally consistent assessments on-entry to school** be undertaken for every child, including regular monitoring of decoding skills and word reading accuracy using objective testing of specific skills, and that these link to future assessments, including the use of regular monitoring of decoding skills and word reading accuracy using objective testing of specific skills;
- education authorities and schools be responsible for the measurement of individual progress in literacy by regularly monitoring the development of each child and reporting progress twice each year for the first three years of schooling.

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