

**Senate Inquiry into the effectiveness of**  
**National Assessment Program Literacy and**  
**Numeracy NAPLAN**

**Submission by**

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**Submission**

***Through Measurement to Knowledge.***

**Summary**

NAPLAN is a necessary adjunct of the National Curriculum. There appear to be only three possible actions that can be taken/suggested by this Senate Committee. NAPLAN can either (a) be abandoned altogether or

(b) be left as is or

(c) be modified and built onto to produce a valid method of measuring Value Adding. This option would also answer some of the concerns raised about the present structure, in particular real or perceived discrimination against schools and the students in lower socio-economic groups.

**I strongly support Option (c), modify to measure Value Added.**

**Experience, research and activities relevant to this Inquiry.**

**Direct teaching experience**

Head of Maths, Okrika Grammar School, Eastern Nigeria 1961-63

Head of Maths Department, Stepney Green Comprehensive School, Stepney, London 1963-65

Senior lecturer Maths/Maths method, Women's Training College,  
Kano, Northern Nigeria 1965-1968

Head of Maths Department, Tulse Hill Comprehensive School, Tulse  
Hill London, 1968-70

Head of Maths, Innisfail State High School, Innisfail, Queensland.  
1970-retirement.

The Senators may or may not consider it of significance that I am  
widely experienced and that that experience has tended to be in areas of  
socio- economic disadvantage.

**Other relevant activities (Dot point for brevity)**

- Co-Author with Santo Russo of *Queensland Maths* series Years 8-10, Oxford U.P.
- Long-time member of the Moderation Committee Board of Secondary School Studies BOSSS and Board of Senior Secondary Schools Studies. Brisbane.
- Inaugural District Panel Chair Maths B/C
- Over 6 years I studied under Prof Mal Heron for a PhD. That was awarded in 2004. Thesis topic was *Participation in Physics and rigorous Mathematics and a consideration of educational, economic and political influences.*
- Since retirement I tutor all Maths, Physics, Ancient and Modern History, Study of Religion and junior Science, for, on average, 12 hours per week.
- Moved an e-petition in the Queensland Parliament pressing for an Inquiry into assessment systems throughout the State.
- Made submissions to House of Reps Education Inquiries and to Queensland examination of standards of Science, Maths and related Engineering and Tech. studies.
- Made submission on 10<sup>th</sup> May 2013 to the Queensland 'Parliamentary Inquiry into senior Mathematics, Physics and Chemistry Assessment'. Please see Submission 105 at [www.parliament.qld.gov.au/work-of-committees/committees/EIC/inquiries/current-inquiries/Qldassessment](http://www.parliament.qld.gov.au/work-of-committees/committees/EIC/inquiries/current-inquiries/Qldassessment)
- Author for Online Opinion since 2005. 15 articles about education particularly Maths and numerical Science education mainly but not exclusively in Queensland. Of especial relevance to this Inquiry is *Through measurement to knowledge* (21/02/2012) at [www.onlineopinion.com.au/view.asp?article=13273](http://www.onlineopinion.com.au/view.asp?article=13273)

Please note my very long term interest and involvement in assessments and with the concomitant words ‘measurement’ and ‘data’. Recent interest in assessment/measurement/data is evident by the last two dot points. The Senators will notice that the title I have given to this submission is the same as for the OLO article above. I take it as axiomatic that without measurement, data, there can be no improvement. NAPLAN is a method of obtaining data. It therefore has the potential to produce improvement. Abolition would be extremely unwise; far better to make improvements that can produce more and better data.

### **Basic assumptions and facts relevant to this Inquiry.**

(1) To have any idea what is happening anywhere factual data is essential. (It is cheap and facile to make cracks about Gradgrind and I hope such comments will not be made because they are of no help at all.) The Online Opinion article referred to above started off:

“Nobel Prize winning Dutch physicist Kamerlingh Onnes used the phrase ‘through measurement to knowledge’. This article will present hard data, measurements, to show that the condition of maths and science in Australia, in particular in Queensland, is very poor”. The data used by me was either from the Trends in International Maths and Science Study TIMSS, together with material freely available from Australian Council for Educational Research ACER. Of the many worrying data that emerged, the two most shocking are that (a) in algebra, ‘the gateway to further Mathematics’ Australian students are below the *global* average. That is shameful and embarrassing. (b) Whereas high performing countries have 30+% of their students reaching TIMSS ‘Advanced’ standard, only a pitiful 6% of Australian students reach that standard.

(2) Australia has for many years been involved with International testing such as TIMSS. As seen in the previous dot point the *data* from those tests has been enlightening and shocking.

(3) When the NAPLAN results came out a few years ago the then Queensland Premier Anna Bligh called the results ‘a wake up call’ and asked ACER to examine the situation. The result was *A Shared Challenge* ACER 2009 qv. Note the *data* was the stimulus.

(4) Educational standards in Primary and lower Secondary are strong determinants of educational and other success later. The Longitudinal Survey of Australian Youth LSAYR 22 ACER 2001 showed that literacy and numeracy in Year 9 was by far the biggest determinant of

later success in school and beyond. (Numeracy showed a greater effect than Literacy). LSAYR 22 was of course based on various *data* sets.

(5) The Australian Curriculum is produced by the Australian Curriculum Assessment and Reporting Authority ACARA. It was/is 'produced in consultation with the states and territories'. The various syllabi are being used at present up to Year 10. ACARA also produces NAPLAN. ACARA states at [www.nap.edu.au/naplan/the-tests/the-tests.html](http://www.nap.edu.au/naplan/the-tests/the-tests.html) that '*NAPLAN is not a test of content. Instead it tests skills in literacy and numeracy that are developed over time through the school curriculum*' and '*Students should continue developing their literacy and numeracy skills through their school curriculum because the tests contain questions similar to those that are undertaken in regular classroom learning and assessment*'.

(6) ACARA itself sprang from an agreement between, and signed by, Ministers of the Commonwealth government and of all states and territories. That was called '*The Melbourne Declaration on Educational Goals for young Australians*'. December 2008. (Go to [www.acara.edu.au/reporting/reporting.html](http://www.acara.edu.au/reporting/reporting.html) and click on Melbourne Declaration.) There are aspects of the Declaration that do not appeal to me, but in terms of this present Inquiry it is clear and unambiguous. Brief excerpts from pages 16/17 are:

Good-quality information on schooling is important for schools and their students, for parents and families, for the community and for governments.

Schools need reliable, rich data on the performance of their students because they have the primary accountability for improving student outcomes. Good quality data supports each school to improve outcomes for all of their students.

For parents and families Information about the performance of individuals, schools and systems helps parents and families make informed choices ....they should have access to:- data on student outcomes- data that allows them to assess a school's performance overall and in improving student outcomes

Governments need sound information on school performance to support ongoing improvement for students, schools and school sectors. Good quality data enables governments to:- analyse how well schools are performing- identify schools with particular needs- determine where resources are most needed to lift attainment- identify best practice and innovation.....

I agree with all of that. Above all else is the **fact** that in the absence of facts/data/information there will inevitably be just rumour. (My observations and experience was that rumour was always to the detriment of the State High School I worked in. All very unsavoury.)

(7) Under the Australian Curriculum each State retains control over assessments. An assessment system, if enforced absolutely on all the

schools, also determines pedagogy absolutely. The situation in Queensland is a good (ie really bad!) example of that. The central pedagogy is a sequence of 'assignments'. Obviously student time spent on those is not spent on normal teaching at all. Hence there is bound to be a decline in the emphasis on the absolutely essential '*skills in literacy and numeracy*' that are tested by NAPLAN. At present, so far as I can see, the assignment disease is spreading down into Primary schools as well. Furthermore the Queensland Studies Authority defines mathematics in such a way as to under emphasise skills etc and grossly over emphasise English. The consequence is that the system discriminates against boys and all those from lower socio-economic groups. For a good analysis of the definition(s) of Mathematics produced by QSA please see page 9 of Dr Matt Dean's (UQ Maths) Submission number 28 to the Queensland Inquiry at [www.parliament.qld.gov.au/work-of-committees/committees/EIC/inquiries/current-inquiries/Qldassessment](http://www.parliament.qld.gov.au/work-of-committees/committees/EIC/inquiries/current-inquiries/Qldassessment)

A comment from Submission 220 to the Queensland Parliamentary Inquiry by Prof Peter Adams, Associate Dean(Academic) and Prof Joseph Grotovsky Head of Maths Discipline, both of UQ in respect of the effect of those subdivisions is important re NAPLAN and attitudes to NAPLAN: '*it is our very strong view that achieving in the 'Communications' exit criterion (or any other criteria) **must not** (their emphasis) come at the expense of achieving proficiency at mathematical skills and content knowledge*'. That says that they, naturally, see skills and knowledge as the most important aspect of Maths. However QSA see Skills and Knowledge as the *easiest and least important* aspect of Maths.

(8) The Parliamentary Inquiry in Queensland about assessment in Maths, Physics and Chemistry has evoked a strong response. The Parliamentary staff has been rather overwhelmed by the rush of submissions. I urge you to go through some of them. You will see a great gulf between, on the one hand, the Education theorists (who control QSA and have total power) and on the other hand the mass of the interested and involved public. Currently the Submissions are running something like 4:1 or 5:1 *against* the system. Clearly the Education theorists are totally removed from reality. It is their ilk that has, over the years, moved Maths/Science education in Queensland from the best to the worst - and Australia as a whole is now third rate in Maths and numerical Science.

(9) There has been much talk of stress on children, parents, teachers etc. That seems to me to be put into the same sentence or paragraph as 'high

stakes tests' or phrases that say that. I will make no friends by saying that I find that whole affair rather silly, certainly pathetic. Firstly in what way are the tests high stakes for a child? Answer, they are not. The results will not determine the school she/he will go to, nor the school produced subject results on reports or anything else that is apparent. Similarly the tests are not directly high stakes for the parents. They may be high stakes for a school because it could show how the school is going. But they are also an *opportunity* not only to show that the school is doing its job well, but mainly as an opportunity to identify where it could improve – for the good of the students.

I refuse to believe that we have so enfeebled our children that the prospect of a couple of tests every two years is terrifying. If we have, then God help us. Mark you, they will never be allowed to drive as the driving test(s) certainly is high stakes! I can imagine some teachers might be concerned and provoke excitement among parents and on to children. I have no idea how widespread the fear/panic/heart attacks/breakdowns are. All I can say is that I have not come across any child who gets in a real tizz over the tests. The only comment this year was from a parent who was a bit sour that her child had a poor teacher (so she said).

A comment which is, I realise, influenced by my background personally and professionally: Boys and all children from lower socio-economic backgrounds do better, much better, in formal skill testing exams than they do where there is a great emphasis on currently fashionable tests style, or, worse, assignments.

However within the NAPLAN system, beneficial as it is and far preferable to fashionable assessments it is still, in my opinion liable to discriminate against lower socio-economic background students and schools. (Of course even then it is nowhere near as discriminatory as current fashionable assessments). Nevertheless NAPLAN can and should be improved. It should be used to measure Value Added. Much more information is then available and I think much fairer to schools/students in poorer areas. See response to **TOR (b)** below

## **Response to Terms of Reference TOR**

I shall respond, as well as I can, to the **TOR** but in the order (c), (a), (b), (d), (f), (g) and (e).

### **TOR (c)**

As indicated above in ‘Basic Fact (5)’; the Australian Curriculum and NAPLAN are both produced by ACARA. The Curriculum and NAPLAN are inextricably linked as the following quotation demonstrates: *‘Students should continue developing their literacy and numeracy skills through their school curriculum because the tests contain questions similar to those that are undertaken in regular classroom learning and assessment’*. NAPLAN is not separate from the curriculum, it is checking whether the student(s) have developed the essential underlying skills that are required by everybody for the future.

So when we hear statements that indicate panic/concern that NAPLAN interferes with the curriculum, or, in the words of **TOR (c)**: *‘...impact on teaching and student learning practices’* it is necessary to consider the possible cause(s) of such an ‘impact’. (I get the impression that it is being assumed that the ‘impact’ is bad for the students). There are only two that I can think of:

Either

(i) The ACARA test setters have failed to ensure that the tests really *do* test the ‘skills’ of literacy and numeracy in such a way that the tests meld into what is *supposed to be* happening in the schools/classrooms. To summarise, that would mean that ACARA have blown the test setting. I have looked at the various numeracy tests and can see nothing wrong with them. Certainly there is nothing in them that is asking about skills that are unreasonable for students at the relevant age. (Personally I think that they are on the easy side, minimal survival material).

Or, alternatively:

(ii) Some systems/schools/classes are not teaching the Australian Curriculum properly.

- Are the students actually being *taught* Maths or are they spending much/most of the time with material that is barely, if at all, Mathematics.?
- Are the teachers in fact not being teachers but being, in eduspeak, ‘Learning facilitators’? Certainly that is at least in part true in Queensland where the QSA et al insist on ‘assignments’ (which the students frequently have no hope of doing because they lack the Mathematical skills/techniques/knowledge and English ability).
- If the skills in Mathematics are officially derided, sneered at, as being of less importance than ‘Communication’ for example (see Queensland Submission 220 by Professors Adams and Grotovsky

referred to in my ‘assumption/facts number (7) above) then obviously the skills base will be feeble – and NAPLAN, which tests those skills, will be a big shock. Such schools/classes/systems really *would* have to start teaching differently because of NAPLAN - and a good thing too.

I do not think that the NAPLAN Tests, certainly for Numeracy are unfair, unjust, too hard or in any reasonable way not matching with the relevant part of the Australian Curriculum.

I aver that the perceived problem is caused by the fact that all too often the subject is being taught according to the fashionable idea that Knowledge and Procedures, ie skills, are of the lowest significance. There is no shadow of a doubt that that is true in Queensland (and possibly/probably to a lesser extent elsewhere). To me that demonstrates that the cause of the perceived problems with NAPLAN lies fairly and squarely on the relevant system/school/classroom; not with NAPLAN itself.

So, in direct response to **TOR (c)**, I state that for a school/class that is teaching the Curriculum syllabus properly NAPLAN will have little or no ‘impact’, although it may, probably will, show areas of relative weakness within the overall strength.

However where the school/class is fashionably underemphasising the skills (Knowledge and Procedures) then there *will* be an ‘impact’ – ***and it will be for the good.*** It is the only thing that gives any real hope of improvement in standards of skills in Numeracy (and probably Literacy), because it will force the schools/classes to actually *teach*.

#### **TOR (a)**

At this stage I think that it is hard to say; and anyway much would depend on what the stated objectives are. If the objective is to improve Numeracy (and Literacy) in the schools then for me the answer must be ‘Yes’. As stated above, if a school/class is being taught the basic skills properly (as it is supposed to do) then NAPLAN will have no real improving effect on the students in that school/class. If, as is all too often the case, the school/class is not being taught properly according to the Australian Curriculum, the NAPLAN will, must, produce an improvement because it highlights to everybody that there is a skills problem.

#### **TOR (b)**



I am not really sure what the ‘*unintended consequences*’ referred to in this **TOR** are. I can only discuss what I see happening. Because of the fact that it is possible to just look at a single year performance by a student – and by extension the schools - there is probably a tendency to unfairly judge students of lower socio-economic backgrounds. However it really should be recognised, in particular by the people most grieved about discrimination against the poorer people and their schools, that the downplaying of Knowledge and Procedures – skills – as compared to verbosity, **certainly discriminates against those people already and have been doing so for years.** What was/is going on before NAPLAN also discriminates against boys. It is a mantra of mine – don’t be male and don’t be poor. NAPLAN offers some hope for those students. I think that the perceived discrimination within the NAPLAN structure can be remedied, please see later suggestion re Value Added.

I respectfully suggest that the Senators look at a House of Representatives Inquiry from 2002. It was entitled ‘*Boys: getting it right*’. It discussed the educational problems already facing boys and made some strong Recommendations. For me the most important was:

***Assessment procedures for maths and sciences must, as a first requirement, provide information about students' knowledge, skills and achievement on the subject, and not be a de facto examination of students' English comprehension and expression.***

Had that and other Recommendations been followed in all of the States and Territories nearly all the problems that have been faced by boys – and *all* from lower socio-economic groups – would have been ameliorated at the very least. The Senators might do well to note the extreme and overweening arrogance of the Education Establishment throughout the country which was able to, and did, not only ignore what Parliament recommended, but made things progressively worse and worse.

Over eight years ago I wrote an Online Opinion article on the plight of boys and those from lower socio-economic areas, starting in the old East End of London.  
[www.onlineopinion.com.au/view.asp?article=3356](http://www.onlineopinion.com.au/view.asp?article=3356)

I note in that article that Maths and the numerical sciences were an area of *comparative* advantage for males because they do as well as the girls. It is sad to note my cynicism even then when I comment ‘for now’.

NAPLAN offers a chance to help those who have been disadvantaged for years.

Nevertheless, as remarked earlier I think that it is probable that currently NAPLAN does discriminate against those schools/students from lower socio – economic backgrounds (though nowhere near as much as was already happening). I shall suggest later that that problem can probably be resolved by using a system of Value Adding.

#### **TOR (f)**

If and only if any examination of ‘international best practice... and...international case studies’ in respect of ‘standardised testing’ went hand in hand with and ‘examination’ of international standards as measured by, for example, Trends in International Maths and Science Study TIMSS then we might make progress. Why? Because that would highlight the low standards of Maths and Science, particularly the numerical Sciences, in this country. I am confident that the theorists who come up with all sorts of ‘papers’ from abroad which claim to show how poor ‘standardised testing’ is would not like to front up to the existing FACTS that our children are being horribly disadvantaged by the low standards we have.

Please note that the pathetic standards shown by TIMSS re particularly algebra and the pitifully small number of our children that reach ‘Advanced’ standard fit *exactly* with the low standards of students on entry to Queensland university maths/science/engineering courses. See again the Submissions 28 and 220 to the current Queensland Parliamentary Inquiry referred to above in ‘Basic assumption’ (7) on page 4 of this Submission. For a view from a different perspective – a student who left Year 12 last Year – read the short Submission 257. It is a strong criticism of the school system he endured. And who thought up this awful system, why, the education experts of course. Why look too much at what other ‘experts’ say about ‘standardised’ testing. Why not look at what is happening now; at the **facts, the outcomes, the consequences, the abysmal standards?**

I indirectly deal with this **TOR** later in my response to **TORS (e) and (g)**. That will be done by referring to and quoting from Jensen’s *‘Measuring what matters: student learning’*.

#### **TOR (d)**

As shown in my ‘Basic assumption and facts’ (6) on page 4 of this submission it was always made clear that the results would be made available to all; ie to the public. Surely it should have been evident that

the publishing of the results would have an effect on schools as well as others. If some people or groups do/did not want relevant test results being made public then the question is *why*? I can only presume that they want to have no data available that attempts to demonstrate performance. So the Parliament and tax payers are to put in vast sums of money, parents are to pay fees and entrust their children to a person or organisation who wants to remain unquestioned and secretive.

I cannot see how **TOR (c)** and **TOR (d)** can be seen as separate. There was never, so far as I can see, any intention to set and mark the tests and then keep them secret. The one problem with the release of data to the schools and the public is that the marking is far too slow. Results are required back in the school(s) quickly so that the data can be put to maximum use. ACARA need to explain what the issue is that makes the marking and release of those results so pedestrian.

I have seen claims made that due to the NAPLAN tests students who do well are poached by other schools so as to get better results next time or at exit. I imagine it happens, but two things should be considered:

(1) How many of these cases have actually happened? Without some data the claim has very little meaning.

(2) That sort of thing has been happening for ages. A student does well at Year 10 – gets lots of academic awards – and lo and behold she/he gets an offer of a scholarship of part scholarship from another (perceived to be superior) school. The idea is that people in a local area have a sort of mental school pecking order – based usually on the final Year 12 exit result. I have not heard any shouting about that. I therefore presume that people see student transfer, (effectively for a reward), based on the OP or TES data or whatever, as not as bad as the same movements based on NAPLAN. Weird and illogical.

### **TORS(e) and(g). Improvements to NAPLAN to improve student learning and assessment.**

Although NAPLAN provides valuable information on the *skills* inherent in the Australian Curriculum for Literacy and Numeracy it is thought by some to operate to the relative disadvantage of schools and their students in lower socio-economic areas. (Though please see response to **TOR (b) for much greater and long standing discrimination in existence *without* NAPLAN**).

I am of the opinion that there may be a weakness in the system that needs attention.

I am entirely unable to speak with any personal authority on this matter but I refer you to two documents that emphasise the importance of continuous monitoring and are supportive of some system of Value Adding. Value Adding would *inter alia* reduce the possible discrimination referred to earlier. I have highlighted a few sentences using **bold** for items that are, for me, and this Inquiry, of particular significance.

### ***(1) A Shared Challenge***

Firstly from the report *A shared challenge* by Masters and Matters of ACER (2009) which was the Report referred to in my Basic assumption and Fact (3) earlier. The following are a very tiny sample of that document which can be found at <http://education.qld.gov.au/mastersreview/pdfs/final-report-masters.pdf>

Masters and Matters emphasise the importance of continuous monitoring and point out that NAPLAN is a form of regular monitoring and can hence be used for that purpose. I have emphasised two things. Firstly the great importance and effect of monitoring; and secondly that they refer to ***knowledge, skills and understandings***. Those are what NAPLAN is testing but not necessarily what a State body may be imposing on the schools/students.

## **7.3 Continuous Monitoring**

“A third and closely related pedagogical strategy is close, ongoing monitoring of the progress of individual learners in key areas of the school curriculum.

At any point in a student’s learning it is important that teachers have a good understanding of where the student is up to, including an understanding of the student’s current strengths and weaknesses, so that learning needs can be addressed and appropriate learning opportunities can be provided. This ‘formative’ monitoring of learning and its use to provide feedback to students on how they are performing and what they could do to make further progress is a key element of highly effective teaching. **William and Thompson (2007) found that close monitoring of this kind had a greater impact on student achievement than either reductions in class sizes or increases in teachers’ content knowledge.**

A prerequisite for monitoring a student’s progress in literacy, numeracy or science across the primary years is a shared understanding of the nature of long-term progress in each of these areas of learning. All teachers must have a good understanding not only of the **knowledge, skills and understandings that students should be developing across the primary years**, but also of typical sequences and paths of student development.”

I urge the Inquiry Senators to read from page 80 (near the bottom, Figure 7.1) to page 83. It will be seen that Masters and Matters comment that the letter gradings A B C D E are too wide (crude?) to show change and that NAPLAN can measure ‘progress’. The couple of paragraphs below give the ‘flavour’ of the document. Bear in mind that it was written for Queensland but it will certainly have much wider relevance.

“Teachers judge and report the quality of their students’ responses to each QCAT using five grades, A to E. Once again, **these grades do not provide a basis for monitoring student growth in science (or any other key learning area)**”

Later, with reference to NAPLAN style testing:

“..parents are provided with a better picture of students’ *progress* in literacy, numeracy and science across these years of school than is provided by more traditional methods of reporting to parents (e.g., letter grades).”

## **(2) *Measuring what matters: student progress***

Secondly the document *Measuring what matters: student progress* by B. Jensen, Grattan Institute 2010. It can be found by clicking onto <http://grattan.edu.au/publications/reports/year/2010> The relevant document can be downloaded via the title near the bottom of the page. Although it appears to be long it is not really onerous as the words/page are relatively few. To expedite things I show below three excerpts from the document: they are the Introduction, the Executive summary and a brief thing on cost.

## **“Introduction**

Accurate measures of school performance are needed to address what matters in school education: student progress. Three issues highlight this need:

- A large percentage of students have only progressed to or below minimum levels of literacy and numeracy. For example, 30% of year 9 students perform at only the basic minimum levels of writing literacy (MCEETYA 2009a);
- More schools are failing to lift the performance of at least some of their students over time. Relative to other countries, Australia has wide inequality in student performance within schools and relatively less inequality between schools (OECD 2007); and
- **Increases in education expenditure have not been matched by improvements in student performance. Funding in the Australian school education sector increased by 41% between 1995 and 2006 (OECD 2007). However, between 2000 and 2006, Australian student performance has**

**stagnated in mathematics and significantly declined in reading (Thomson & De Bortoli 2008).**

**Additional investments in schools and education programs are not improving students' education, particularly those most in need.** We have a moral imperative to address differences in student progress.

The development of school performance measures in Australia builds on the introduction of the National Assessment Program – Literacy and Numeracy (NAPLAN). **NAPLAN should be strongly supported given the evidence from both Australia and other countries that high-performing education systems have more regular student assessments;** efforts to turn around under-performing schools are enhanced with standardised testing like NAPLAN; and student learning improves when individualised instruction builds on assessments of student progress (Hanushek & Woessmann, 2007; Woessmann et al., 2009).

The Federal Government has driven reform for greater transparency in schools on the basis that “under-performance and failure will no longer be hidden and tolerated” (Gillard 2009a).”

## **“Executive Summary**

In Australia, a large percentage of students only reach minimum standards of literacy and numeracy. These students are spread throughout Australia's school education systems; there are few schools that do not have poor performing students who would benefit from improved education. Despite decades of increasing expenditure, student performance has stagnated (Thomson & De Bortoli 2008). We have a moral imperative to improve the performance of the 30% of year 9 students who have progressed to only the very basic elements of writing literacy.

**Accurate measures of school performance are vital to improvement. The measures need to focus on student progress so that schools and teachers can focus on improving all students – particularly those most in need.**

The National Assessment Program – Literacy and Numeracy (NAPLAN) assesses students' literacy and numeracy skills and is an important advance in addressing poor performance. The Federal Government's *'My School'* website<sup>1</sup> publishes school performance scores for each school as the average of their students' NAPLAN results, comparing them to the results of 'like' schools (based on proxies of students' socio-economic background).

The publication of school performance measures is a significant step forward in achieving transparency and lifting standards in the Australian education system. **However, the school performance measures published on the *'My School'* website are prone to mismeasurement and may be biased against schools serving lower socio-economic communities (Ballou et al. 2004; Ladd & Walsh 2002; Raudenbush 2004; Raudenbush & Willms 1995).**

**Value-added scores consistently measure school performance more accurately, because they are better able to isolate the performance of schools from other factors that affect student performance. This creates a fairer system that is not biased against schools serving more disadvantaged communities. For these reasons, teachers, school associations and education unions in other countries have advocated for**

**the introduction of value-added measures of school performance (Doran & Izumi 2004; Fitz-Gibbon 1997; Jakubowski 2008; NASBE 2005; OECD, 2008; Raudenbush 2004).**

School value-added scores are calculated by comparing the progress made by each student between assessments, measuring the contribution the school makes to that progress, controlling for students' background. A school's contribution to student progress would be measured between NAPLAN assessments of literacy and numeracy at years 3, 5, 7, and 9, and students' grades in the final year of secondary school.

Value-added measures of school performance shift the focus to the student – they focus on how students learn and progress. Significant improvements come from building individualised instruction and lesson plans around multiple assessments that identify each student's learning trajectory.

School principals need to be able to identify for which students, in which subject areas and in which grade levels their school is effectively contributing to student progress. Effective programs and instruction can be expanded and less effective areas developed."

### **Summary**

- Both the Australian Curriculum and NAPLAN come from the same source: ACARA
- NAPLAN is measuring the '**skills**' in Literacy and Numeracy that *should* arise naturally from the National Curriculum. I assert that the **skills** in the Numeracy tests are both reasonable and essential tools for future study and beyond.
- ACER emphasises the need for regular monitoring and states that the NAPLAN system provides such monitoring.
- ACER also points out the obvious fact that the simplistic A B C D E assessment reporting structure is too crude (my word) to be of any use in showing progress over time.
- The downplaying of **skills** by State authorities with concomitant gross and irrelevant emphasis on English comprehension discriminates against boys and all from lower socio-economic backgrounds.
- In 2002 the House of Representatives recommended that testing/assessing in Maths and Science should be testing '*knowledge skills and achievement and not be a de facto examination of English...*'
- NAPLAN **does** test the **skills** etc achieved by the student(s) in Numeracy and Literacy.
- The Australian Curriculum is implemented by each State and Territory. That includes assessments (other than NAPLAN)

- Certainly in Queensland and presumably in other jurisdictions the Skills are downplayed; seen as being much less important than other 'criteria' that, certainly in maths, are barely maths at all. For proof of that see my Basic assumption (7) on pages 4/5.
- I also see no evidence that the students are taught any of the Literacy skills **other than when NAPLAN is due**.
- There are often complaints that NAPLAN interferes with the Curriculum. NAPLAN is about the skills in the Curriculum. State(s) *implementation* of the Curriculum downplays the importance of skills and knowledge.
- The mismatch between what should be happening under the Australian Curriculum and what is really happening means that the essential **skills** are not being taught adequately if at all.

### **Suggestions to the Senators.**

At the start I stated that the only three possible outcomes that I could think of were:

- (a) scrap NAPLAN,
- (b) keep NAPLAN as is or
- (c) build on NAPLAN to produce a form of Value Added.

Dealing with these seriatim:

- (a) To scrap NAPLAN would be a fearful error it would condemn those from lower socio-economic backgrounds and boys to continuing discrimination. Furthermore it would ensure that Australia continues to produce young people who are shockingly weak at the survival skills inherent in Literacy and Numeracy.**
- (b) Keeping NAPLAN as is would be an acceptable decision and infinitely preferable to (a) but not optimal as it would not give the advantages to the schools etc that Value Adding could do and which would further reduce discrimination referred to above.**



**(c) Building on NAPLAN to produce a form of Value Adding would be the best way forward. It would certainly further emphasise the importance of skills and knowledge, would be the fairest and would provide the best and most useful information to students, parents, schools, the public and Parliament(s)**

I take this opportunity to thank the Senators for the opportunity to comment on this important issue. The Inquiry members will have a difficult task and I wish them well in their deliberations.

Regards,  
John Ridd

**Submitted by**

**Dr. John Ridd,**