



Measuring what matters: student progress

**30 August 2010
AHISA Conference,
Hyatt Hotel, Canberra**

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- Grattan Institute is truly non-aligned and well-resourced
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Focus

- Cities
- Energy choices
- Productivity growth
- School education
- Water

Welcome

My School enables you to search the profiles of almost 10,000 Australian schools.

You can quickly locate statistical and contextual information about schools in your community and compare them with statistically similar schools across the country.

[More about *My School*](#)

A note from ACARA

My School provides an important opportunity for everyone to learn more about Australian schools, and for Australian schools to learn more from each other.

The *My School* website has been developed by the Australian Curriculum, Assessment and Reporting Authority (ACARA), an independent authority that is responsible, among other things, for publishing nationally comparable data on all Australian schools. ACARA has worked closely with education sectors and partners across the country to develop this website.

The *My School* website provides detailed information about all the schools in Australia. It uses a new index of student and school characteristics, developed specifically for the purpose of identifying schools serving similar student populations. This enables schools' results on national tests to be understood in a fair and meaningful way.

Find a school

Search by school name

Search by suburb, town or postcode

Sector Government
 Non-government

Recommendations

1. The current measures of school performance published on the '*My School*' website should be replaced with value-added measures of school performance.
2. School principals and teachers should be empowered to use value-added measures to improve instruction and school programs.
3. Value-added measures of school performance should become an important benchmark in school evaluation.
4. Value-added measures of student progress should be the basis for categorising schools as under-performing.
5. School principals should be granted autonomy to effectively lead the school for which they are being held accountable.

Objectives of My School

- School accountability
- School choice
- School improvement

Performance measures in school education

Commonwealth government's school transparency reforms

- NAPLAN
 - National Assessment Program – Literacy and Numeracy
 - Testing of students in Year 3, 5, 7 and 9
 - > Reading, writing, language conventions (spelling, grammar, punctuation) and numeracy
 - Comparisons of schools in 'like-school groups'
- Various state initiatives

School evaluative information

- Inspectorate system
- School self-evaluations
 - Broader focus

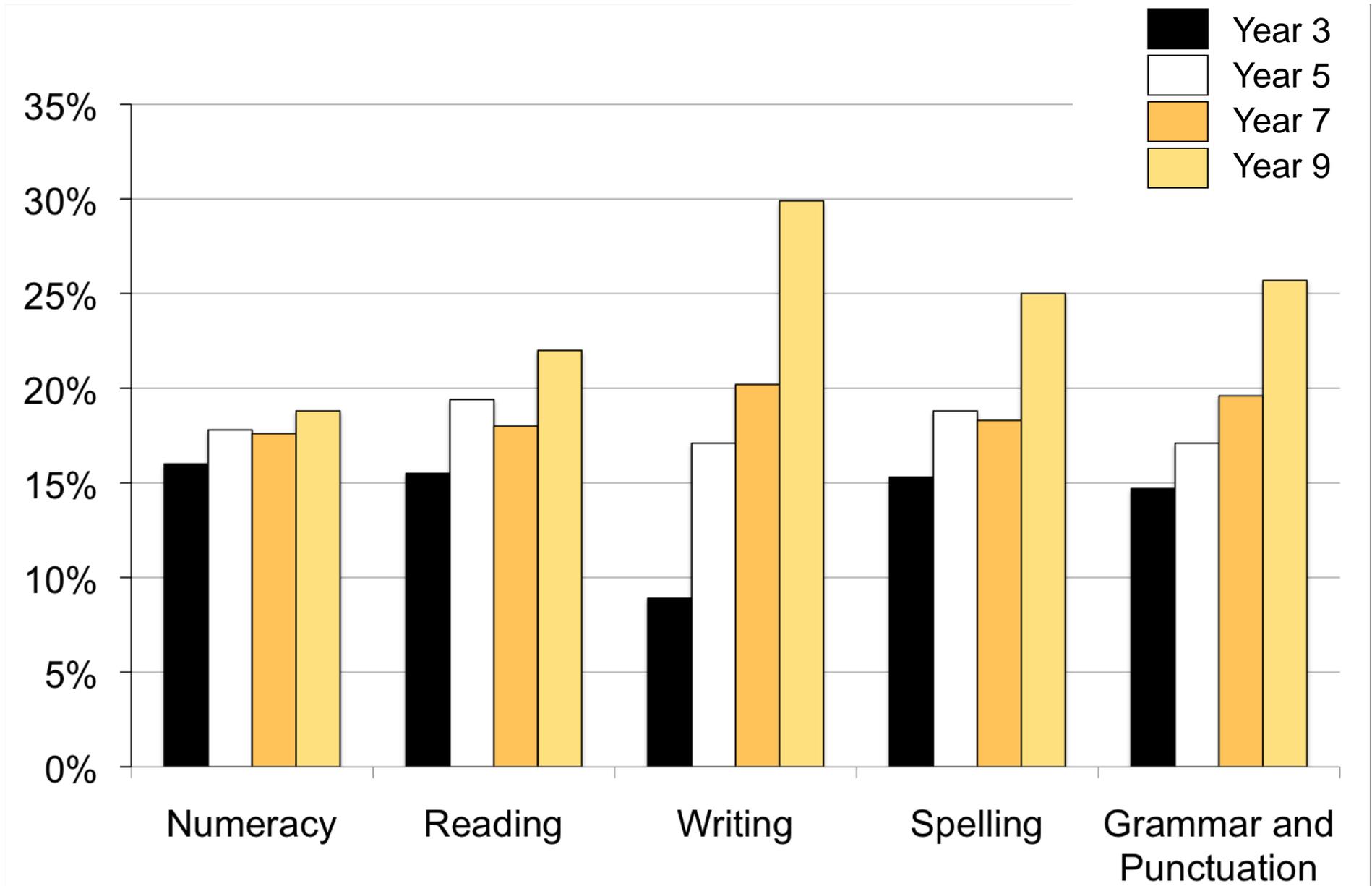
Teacher evaluation and appraisal

- Less developed with variation across states
- Less clear what the outcomes are (e.g. not linked to annual salary increases)

Objectives of My School cont.

- Key issues of student progress in Australian education
 - A large percentage of students at or below minimum levels of literacy and numeracy
 - Large inequality in performance within schools
 - Disconnect between education spending and student progress
 - Between 1995 and 2006 expenditure per student increased by 41%
 - Between 2000 and 2006, performance on international student assessments stagnated in mathematics and significantly declined in reading

Percentage of students at or below minimum



What is NAPLAN?

- The National Assessment Program – Literacy and Numeracy (NAPLAN) is a series of assessments of Australian students in Years 3, 5, 7 and 9.
- NAPLAN is designed to test the requirements for literacy and numeracy common amongst the curricula of each state and territory.
- NAPLAN includes five assessments: reading, writing, spelling, grammar and numeracy. This year will be the third year of NAPLAN testing: the first year in which students take the assessment for a second time.

What is *'My School'*?

- The 'My School' website publishes the NAPLAN results for each school.
- A School's NAPLAN score is the average score of their students in the NAPLAN assessments.
- The 'My School' website reports school performance by comparing schools' NAPLAN scores within like-school groups.
- Like-school groups are schools grouped together based on proxies of their students' demographic and socio-economic characteristics.

NAPLAN Results

The National Assessment Program - Literacy and Numeracy (NAPLAN) assesses all students in Australian schools in Years 3, 5, 7 and 9. [Visit the NAPLAN website.](#)

The chart below displays average NAPLAN scores for each [domain](#) in 2008 and 2009. The selected school's scores are displayed in blue. Also displayed are average scores for [statistically similar schools](#) and all Australian schools. The coloured bars indicate whether the selected school's scores are above (green) or below (red) the other scores.

	2009		2008							
	Reading		Writing		Spelling		Grammar & Punctuation		Numeracy	
Year 3										
Year 5										
Year 7	▶ 523		512		513		514		524	
	SIM 527	ALL 541	SIM 521	ALL 532	SIM 528	ALL 540	SIM 525	ALL 539	SIM 529	ALL 544
Year 9	▶ 552		528		543		539		554	
	SIM 567	ALL 580	SIM 550	ALL 569	SIM 562	ALL 576	SIM 559	ALL 574	SIM 573	ALL 589

- ▶ Selected school's average
- SIM Statistically similar schools' average
- ALL Australian schools' average
- Selected school's average is **substantially above** these schools' average
- Selected school's average is **above** these schools' average
- Selected school's average is **close to** these schools' average
- Selected school's average is **below** these schools' average

Teaching staff	84
Full-time equivalent teaching staff	75.9
Non-teaching staff	37
Full-time equivalent non-teaching staff	28.5

Senior secondary outcomes

Year 12 results	
Senior secondary certificate awarded	81
Completed senior secondary school	90
Vocational Education and Training (VET)	
Awarded a VET qualification	67
Undertook SBAT	8
Post-school destinations	
Students at university	18%
Students at TAFE/vocational study	43%
Students in employment	31%

Student background

[Index of Community Socio-Educational Advantage \(ICSEA\)](#)

School ICSEA value: 972

Bottom quarter	Middle quarters		Top quarter
53%	23%	18%	6%

Links

Measuring school performance

- *'My school'* prone to bias and inaccurate measures of performance
- Without an accurate performance measure, equitable outcomes and efficient policy responses can be compromised as resources are not directed to where they are most needed.
- Policies and practices cannot be improved if it is not known what has proven to be effective.
- Suggest move to value-added that focuses on student progress
 - Better able to isolate the performance of schools from other factors that affect student performance
 - Less prone to biased results, particularly for schools in poorer communities
 - Stakeholder support
 - Unions
 - School associations

What is value-added

- A school's value-added score represents the contribution the school makes to the progress of its students.
- This is calculated using a statistical model.
- The model compares the progress made by each student to the progress of other students with the same initial level of attainment, controlling for background factors.

Value-added measures of school performance

Value-added focus on student progress: The OECD defines school value-added as:

The contribution of a school to students' progress towards stated or prescribed education objectives (e.g. cognitive achievement). The contribution is net of other factors that contribute to students' educational progress (OECD, 2008a).

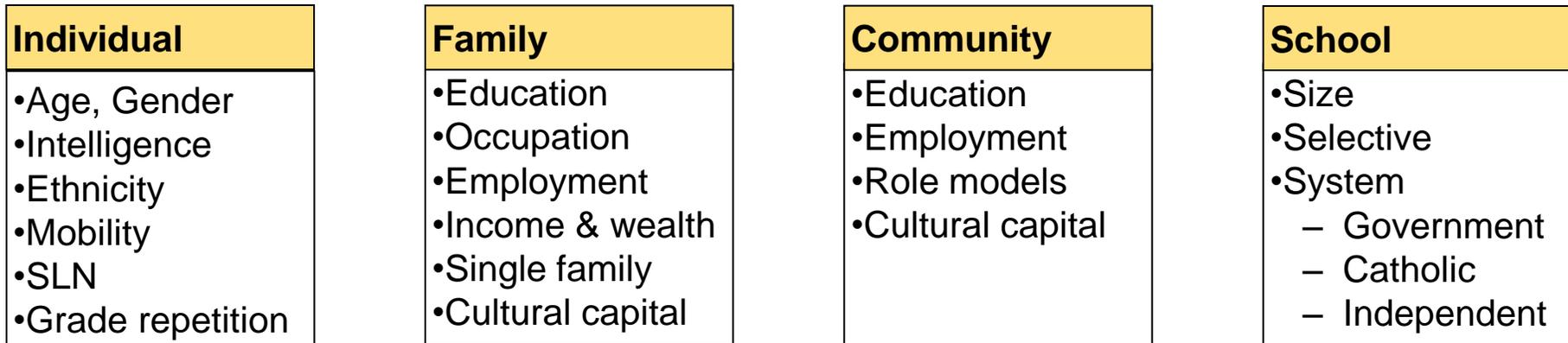
Consistently shown to be more accurate measures of school performance than other measures that are often biased against schools serving poorer communities.

Students' NAPLAN scores largely reflect their socio-economic background

Grouping schools into like-school groups is an improvement but problems remain

- Problems magnified if groupings are inaccurate

Accuracy with value-added



School performance

Greater improvements in school education

- Greater accuracy
 - School choice
 - School accountability
 - School improvement
- The focus on student progress provides important information to shape education programs and instruction

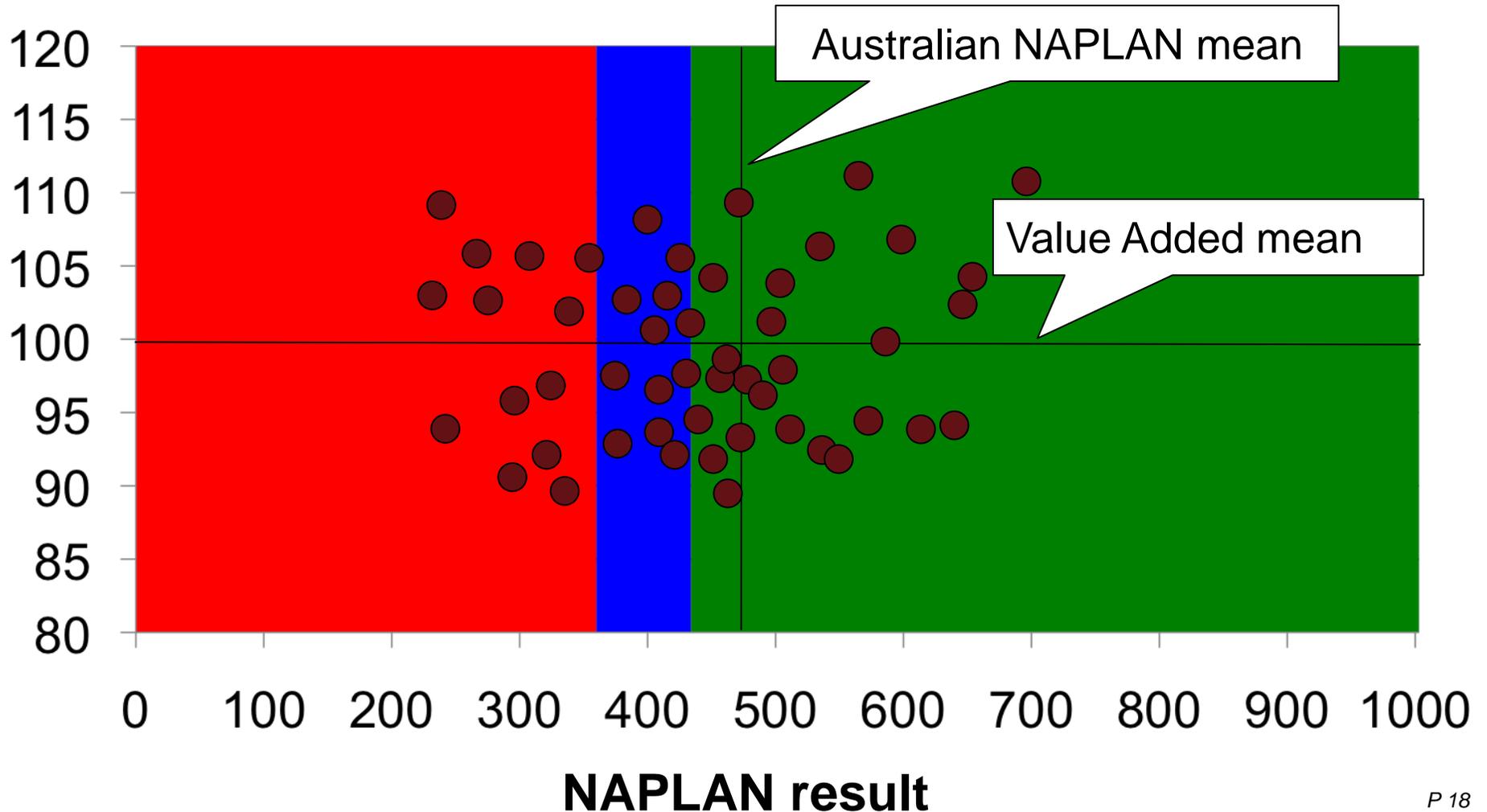
Greater improvements in school education (ii)

- Value-added measures focus on student progress. They are more useful for improving schools, particularly helping students that are falling to or below minimum standards of numeracy and literacy to make more progress
- Value-added data is a more useful evidence based for evaluating and improving policies and programs
- School principals and teachers should be empowered to use value-added student performance data to improve instruction for students at all levels

City school: Year 5 numeracy

- Below minimum
- At minimum
- Above minimum

Value added scores



Greater improvements in school education (iii)

- Value-added measures are not an end in themselves but a basis for actions
- The focus on student progress is more useful for school principals and teachers to evaluate and then develop programs and practices within their school
 - Which students are falling to or below minimum literacy and numeracy standards? And when and in which subject areas did this downward trajectory begin?
 - Which students are rising above minimum standards?
 - Are students with low literacy and numeracy levels early in their education falling further behind?
 - What is the impact of schools in lifting students above minimum levels or allowing them to fall to or below minimum levels?
 - What is the impact of policies and programs on students' progress in literacy and numeracy?

Greater improvements in school education (iv)

Value-added modelling contributes to:

- system-wide learning by accurately measuring higher and lower performing aspects of the education system
- school improvement through improved identification and analysis of ‘what works’
- improved and more equitable transparent systems of school accountability and school choice that can then create well-defined incentives for schools
- the development of information systems that allow schools to analyse and evaluate their performance and strengthen the overall system of school evaluation
- systems of education funding that more effectively direct resources to areas of need
- overcoming entrenched socioeconomic inequalities that might be masked at the school level by inaccurate performance measures.

Implementation issues

- Given volatility in single year performance value-added measures, a 3-year moving average should be adopted

Presenting value-added measures of school performance

- Include raw test scores
- Include value-added to final year of secondary school
- No need for like-school groups

Accurate socio-economic background data

- Need to be at student-level
- Recommend data collection of individual student background data that could include:
 - Age; gender; indigenous status; whether or not they are new to a school; family education and occupation; country of birth and migration background; language preferences; grade repetition; and student learning difficulties.

Recommendations

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