

Secretariat Closing the Gap Refresh Initiative Submitted online via <u>https://closingthegaprefresh.pmc.gov.au</u> 7 February 2018

Dear Review Chair

Re. Grattan Institute submission to the Refresh initiative for Closing the Gap

I welcome the opportunity to contribute to the Refresh process that marks the completion of the first decade of the Closing the Gap agenda.

This submission focuses on the best way to measure one specific target, to close the gap in literacy and numeracy, and includes analysis of how Australia is progressing towards that target. It does this through analysing the size of the Indigenous learning gap using a measure called "Equivalent Year Level", introduced in the 2016 Grattan Institute report *Widening Gaps*.

When this new metric is used, there are areas of improved Indigenous achievement, but no state or territory is on track to halve the gap in reading, writing or numeracy by 2018 at any year level. The size of the learning gaps revealed in this analysis are shocking, but Australia won't make the necessary changes unless we are willing to take a clear-eyed look at the real scale of the challenge.

This submission makes one key recommendation: The focus on closing the gap in literacy and numeracy should continue past 2018, but the metric should be changed from *National Minimum Standards* to *Equivalent Year Levels*. Using minimum standards is a poor way to compare the achievement and capabilities of different groups of students; switching to *Equivalent Year Levels* would provide a more meaningful comparison of the size of the gap and where it is closing.

We recommended that the literacy and numeracy target be updated to be:

"To halve the gap in reading, writing and numeracy for Indigenous students by 2025, as measured by the difference in average performance in Equivalent Year Levels between Indigenous and non-Indigenous students in NAPLAN Years 3, 5, 7 and 9."

Achieving this target will be challenging, even if the timeline is extended from 2018 to 2025. But the improvements in basic literacy and numeracy that it represents would make a huge difference to the lives of the 15,000 or so Indigenous students who complete school each year.

Yours sincerely,

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Overview

Reading, writing and numeracy – the traditional 'Three R's' – are essential foundations for learning and for life.

Every year in Australia, the National Assessment Program - Literacy and Numeracy (NAPLAN) shows that Indigenous school students are well behind their non-Indigenous peers.¹ Addressing this gap is a vital part of Australia's national Closing the Gap policy.²

Unfortunately, the metric used to set the Closing the Gap target – the proportion of students meeting *National Minimum Standards* (NMS) in NAPLAN – obscures the scale of the challenge. For some groups of Indigenous students, the difference is better described as a gulf than a gap.

Using an updated version of the *Equivalent Year Levels* (EYL) metric, introduced in Grattan Institute's 2016 report Widening Gaps,³ we estimate that very remote Indigenous students are a stunning **seven to eight years behind** metropolitan non-Indigenous students in Year 9 writing.

In other words, the average Year 9 Indigenous student in a very remote area scores worse on the NAPLAN writing test than the average Year 3 non-Indigenous city student.

But it would be a big mistake to see this only as a problem for isolated outback communities. Most Indigenous students live in cities or regional areas, and by Year 9 they are still three to four years behind in NAPLAN compared to their non-Indigenous peers. Thus, even though learning outcomes are worse in remote and very remote areas, the weight of numbers means that Indigenous city and regional students account for about two-thirds of the lost years of learning.

This submission argues that the metric used to set the literacy and numeracy target in the Closing the Gap report be changed from National Minimum Standards to Equivalent Year Levels. We report some new results using this metric, and provide initial thoughts on the implications of this analysis.

These numbers are shocking, but Australia won't make the necessary changes unless we are willing to take a clear-eyed look at the real scale of the challenge.

What the current metrics say

Three of the seven Closing the Gap targets relate to school education:

1. Close the gap between Indigenous and non-Indigenous school attendance within five years, [by 2018]. This target is off track, with no meaningful change from 2014 to 2016.

¹ <u>http://www.nap.edu.au/naplan</u>

² Closing the Gap policy

³ <u>https://grattan.edu.au/report/widening-gaps/</u>

- 2. Halve the gap for Indigenous Australians aged 20-24 in Year 12 attainment or equivalent attainment rates [by 2020]. This target was on track in the 2016 Closing the Gap report, a significant achievement that is confirmed by the latest ABS data.⁴
- 3. Halve the gap for Indigenous children in reading, writing and numeracy within a decade, [by 2018]. This target – assessed by comparing the proportions of students at or above NMS for reading and numeracy⁵ in Years 3, 5, 7 and 9 - is the focus of this submission.

Given the complexities of measuring educational outcomes, I support the continuing use of these three different targets related to school education, but with an updated metric for the literacy and numeracy target.

In 2016, the national literacy and numeracy target was on track for only one area, Year 9 numeracy.

A much more positive picture was painted at the state/territory level, where 29 of 64 National Minimum Standards measures (8 result areas across 8 jurisdictions) were reported as on track, as shown in Table 1.

The 2017 results are likely to be similar or slightly better. Yet this picture, concerning as it is, is misleadingly optimistic.

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Reading									
Year 3	\checkmark			\checkmark	\checkmark	\checkmark	\checkmark		
Year 5		\checkmark			\checkmark		\checkmark		
Year 7					\checkmark		\checkmark		
Year 9		\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		
Numeracy									
Year 3						\checkmark	\checkmark		
Year 5		\checkmark				\checkmark	\checkmark		
Year 7					\checkmark		\checkmark		
Year 9	\checkmark		\checkmark						

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Table 1: Progress against the reading and numeracy (NMS) targets, by jurisdiction, 2016

Note: A tick indicates that the jurisdiction is on track to halve the gap in the proportions of Indigenous and non-Indigenous students meeting NMS in that domain, compared to the 2008 gap.

Source: 2017 Closing the Gap Report, Table 1, <u>https://closingthegap.pmc.gov.au/education</u>

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⁴ <u>https://www.theguardian.com/australia-news/2018/feb/02/more-indigenous-students-in-school-until-year-12-abs-says</u>

⁵ Writing gaps are not reported, supposedly because NAPLAN writing results from 2011 onwards cannot be directly compared to the earlier years. Given the importance of writing, this is not good enough. The gap should be tracked with 2011 as the base year.

Why 'Equivalent Year Level' is a much better metric than minimum standards

There are two main problems with using National Minimum Standards to measure the gap between different groups of students.

First, it ignores the difference between students who just meet the minimum standard and those who excel; all students above NMS are implicitly treated as equal. But students' level of achievement in NAPLAN matters beyond meeting a basic standard. For example, a Tasmanian study showed that Indigenous students who excel in Year 9 NAPLAN reading are about 30 per cent more likely to complete Year 12 than those who just met the minimum standard.⁶

This is not merely a theoretical point. Even restricting the analysis to students who are at or above NMS, there are big differences between Indigenous and non-Indigenous students (see Table 2). Yet they are treated equally in the Closing the Gap target, because they all meet NMS.

Of the Indigenous students who are at or above NMS, a substantial minority just meet the standard (i.e. they are in the NAPLAN band immediately above NMS), while relatively few are high performers (i.e. in the top two NAPLAN bands for each year level). This contrasts strongly with non-Indigenous students, where only a small minority just met the standard and either a majority (in Year 3) or a sizeable minority (in other years) are high performers.

	Inc	digenous Studen	its	Non-Indigenous Students					
	At or just Comfortably above NMS ⁷ above NMS ⁸		High performers ⁹	At or just above NMS	Comfortably above NMS	High performers			
Year 3	22%	53%	25%	6%	38%	56%			
Year 5	30%	56%	14%	10%	49%	41%			
Year 7	35%	56%	9%	12%	57%	32%			
Year 9	40%	54%	6%	15%	61%	24%			

Table 2: Distribution of students above NMS in NAPLAN reading 2017

Note: Distribution of Indigenous and non-Indigenous students at different levels of performance in the 2017 NAPLAN reading test, by Year level, as a proportion of students above NMS (i.e. students who did not meet NMS are excluded from this analysis). Sources: ACARA, Grattan analysis

Second, the National Minimum Standards are set too low. In numeracy, a Year 9 student can meet NMS even if they are performing below the typical Year 5 student.¹⁰

⁶ http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4261.6Main+Features42006-2013

⁷ "At or just above NMS" means the band immediately above the standard: Band 2 in Year 3, Band 4 in Year 5, Band 5 in Year 7 and Band 6 in Year 9.

⁸ "Comfortably above NMS" means the next two bands up for each test level: Bands 3 and 4 in Year 3, Bands 5 and 6 in Year 5, Bands 6 and 7 in Year 7, and Bands 7 and 8 in Year 9.

⁹ "High performers" means the top two bands reported for each test level: Bands 5 and 6 in Year 3, Bands 7 and 8 in Year 5, Bands 8 and 9 in Year 7, and Bands 9 and 10 in Year 9.

¹⁰ <u>https://grattan.edu.au/report/widening-gaps/</u>, p.23

It would be better to use average NAPLAN scores. But this introduces a different problem. As ACARA acknowledges in its fact sheet on interpreting NAPLAN results, "students who start with lower NAPLAN scores tend to make greater gains over time than those who start with higher NAPLAN scores".¹¹

This leads to real confusion. For example, a recent news article was titled "NAPLAN results show Indigenous students are making the most progress across the country".¹² If that were the case, then those Indigenous students would be catching up. In fact, our estimate is that Indigenous students make on average 30-to-50 per cent slower progress than their non-Indigenous peers, and typically fall further behind the longer they are in school.

Our Equivalent Year Levels metric addresses these issues. It makes it easy to compare learning progress for different groups of students, because the measure takes student starting point into account. Using average EYL as a metric balances the impact of those who are struggling and of those who are excelling, because it incorporates information about all students who sat NAPLAN.

As a bonus, EYL is much easier to interpret than NAPLAN scores or the percentage of students clearing the very low National Minimum Standards hurdle.

What this analysis covers

Below we present summary analysis of NAPLAN outcomes for Indigenous and non-Indigenous students from 2010 to 2017.¹³ This analysis starts with the national picture, then explores the impact of remoteness, differences by jurisdiction, and how outcomes have changed over time. Finally, we look at where the gap has – or has not – been closing. For the sake of brevity, the charts shown in this discussion paper are for numeracy only, with commentary on the differences among domains. Analysis covering all domains is included in the attachment to this submission.

This analysis does not adjust NAPLAN scores on the basis of individual factors or school factors. The 2016 Productivity Commission (PC) Report on Indigenous Primary School Achievement provides valuable insight into some factors that contribute to low Indigenous achievement, but also notes that the reasons for low achievement among Indigenous students are unclear. Among other analyses, the PC report confirms that average NAPLAN scores for Indigenous primary students are consistently lower than for non-Indigenous students even after factors such as language background and socio-economic status are taken into account.¹⁴

National achievement and gaps

Figure 1 shows that, on average, Year 9 Indigenous students are 3.0 years behind non-Indigenous in numeracy – they perform on average at Equivalent Year Level 5.8, just under

¹¹ http://docs.acara.edu.au/resources/Interpreting NAPLAN results file.pdf

¹² <u>https://www.sbs.com.au/nitv/nitv-news/article/2017/12/14/naplan-results-show-indigenous-students-are-making-most-progress-across-country</u>

¹³ From 2011 to 2017 for writing, due to changes in the NAPLAN writing scale described in the 2017 NAPLAN National Report (p.iv).

¹⁴ https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement, p.11 and Background Paper 2.

mid-way between the average performance of non-Indigenous students in Years 5 and 7.¹⁵ Charts 6 and 7 in the attachment show that the Year 9 gap is 3.4 years in reading, and 4.2 years in writing. It is important to note that these are averages, and that there is wide variation in achievement among individual students.¹⁶





Notes: Mean NAPLAN numeracy scores from 2010 to 2017 translated to EYL using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Sources: ACARA; Grattan analysis

Gaps of this size can be understood intuitively without having to convert NAPLAN points to EYL. For example, the 2017 national average writing score for Indigenous Year 9 students was 469.5 NAPLAN points. This is below the national average of 476.6 NAPLAN points for Year 5 non-Indigenous students. The gap really is more than four years.

The reading and numeracy gaps are broadly consistent with the official view of the size of the gap in years. The Closing the Gap report uses OECD data¹⁷ to estimate that "Indigenous 15-year-olds are on average about two-and-a-third years behind non-Indigenous 15-year-olds in reading literacy and mathematical literacy".

But knowing how big the gap is for 15-year-olds does not help to explain when it arose. How much of the gap already existed by Year 3, or by the end of primary school?

¹⁵ These numbers are based on converting average NAPLAN scores into EYL, using an updated benchmark curve for EYL. The average scores include imputed results for students who were absent or withdrawn from each NAPLAN test, but not the imputed results for students who are exempt from NAPLAN.

¹⁶ The wide distribution of Year 5 reading scores for both Indigenous and non-Indigenous students is shown in Figure 5 of https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement

¹⁷ <u>http://www.oecd.org/pisa/aboutpisa/</u>

Using NAPLAN data translated into EYL allows us to answer these questions. The achievement gaps have grown since the students were in Year 3, when they ranged from 1.2 years in numeracy to just under 2 years in reading and writing.

Indigenous students make on average about 2 years less learning progress from Year 3 to Year 9 – a substantial "Progress Gap" every year they are in school.

A brief note on the accuracy of the NAPLAN tests

We acknowledge that it is hard to accurately measure the literacy and numeracy capabilities of students who score very poorly on NAPLAN.

For example, a student who is reading or writing at a Year 5 level (or below) will struggle when taking a NAPLAN test that is designed for Year 9 students. Few of the questions will be at the right level of difficulty to assess what the student can and cannot do – yet another reason why the move to Online NAPLAN is so important. Some students may choose not to try; indeed, there are anecdotal reports of students not bothering to write anything at all.

However, no better data is consistently available to assess the literacy and numeracy skills of students across Australia. We therefore use the same data that is presented in the NAPLAN National Reports, and take the results of the analysis at face value as an accurate indication of the scale of the challenge and how achievement levels are changing over time.

Impact of remoteness

The Closing the Gap report acknowledges that "NAPLAN results for Aboriginal and Torres Strait Islander students vary sharply by remoteness area". We agree.

Figure 2 shows that Year 9 remote Indigenous students are 4.1 years behind in numeracy, performing at the equivalent level of metropolitan non-Indigenous students in about Year 5. Charts 6 and 7 in the attachment show that the gap is 4.6 years for reading, and 5.9 years for writing. Very remote Indigenous students are further behind again – a stunning 7.7 years behind in writing.

But Year 9 gaps are still about 3-to-4 years for Indigenous students in metropolitan and regional areas, which is where 80 per cent of Indigenous students live.¹⁸ In fact, our analysis shows cities and regions contributed about 60-to-75 per cent of the national gap in 2017, even more than the Productivity Commission estimate of 55 per cent.¹⁹

This raises the additional challenge of how the Indigenous student population is distributed within the schooling system. While most Indigenous students in very remote areas attend schools with very high Indigenous enrolment rates, most Indigenous students in metropolitan or regional areas attend schools where they make up less than one tenth of the student body.

¹⁸ <u>https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement/indigenous-primary-school-achievement-background-1.pdf</u>

¹⁹ <u>https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement</u>, p.36.

In fact, across Australia, half of all Indigenous primary students attend schools where Indigenous students make up less than 15 per cent of enrolments.²⁰ If Australia is going to close the gap overall, then Indigenous performance will need to be lifted across a vast range and diversity of schools, many of which have a low proportion of Indigenous students.



Figure 2: Remote Indigenous students are even further back in numeracy

Notes: Mean NAPLAN numeracy scores from 2010 to 2017, by geolocation. The EYL benchmark is the average performance of metropolitan non-Indigenous students over 2010-2016. Sources: ACARA; Grattan analysis

Differences by state and territory

Results vary markedly by state and territory, in part as a result of different patterns of Indigenous student remoteness. Figure 3 compares Indigenous achievement in numeracy by jurisdiction. The Northern Territory has the lowest results, largely because many more of its Indigenous students live in remote or very remote areas than any other state or territory. Charts 17 and 19 in the attachment show the equivalent analysis for reading and writing.

Table 3 shows the average achievement gap by jurisdiction.²¹ Unlike Figure 3, this takes into account the performance of non-Indigenous students in each state – it is a true gap.²² The achievement gap is generally lowest in Tasmania, Victoria and Queensland, and highest in the

²⁰ <u>https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement</u>, pp.13, 92.

²¹ The data show raw averages for each jurisdiction, not adjusted for different student mixes in different jurisdictions. For example, the lower level of performance in the Northern Territory compared to the ACT is not an indication of the effectiveness of the two school systems, but simply an indication of how well Indigenous students are performing at the time of the NAPLAN tests. The advantage of this approach is that it provides the clearest indication of the average level of literacy and numeracy skills, and therefore the challenges that Indigenous students in different jurisdictions may face in their future lives and work.
²² For example, Table 2 shows that the Year 9 numeracy gap is lower in Tasmania (at 1.5 years) than the ACT (2.6 years), even though Figure 3 shows that Year 9 Indigenous students do marginally better in the ACT. The difference is that non-Indigenous students do much better in the ACT than in Tasmania, so the gap between comparable Indigenous and non-Indigenous students is bigger.

Northern Territory and Western Australia. The tables on the left of page 22 in the attachment give the equivalent analysis for reading and writing.





Notes: Mean NAPLAN numeracy scores from 2010 to 2017, by state and territory. The EYL benchmark is average performance of metropolitan non-Indigenous students over 2010-2016. Sources: ACARA; Grattan analysis



 Table 3: Gap between Indigenous and non-Indigenous students, by state, numeracy

 Average achievement gap (Years)

Note: Difference in mean NAPLAN numeracy scores between Indigenous and non-Indigenous students, by state and territory, averaged from 2010 to 2017. Sources: ACARA; Grattan analysis

Changes over time

Figure 4 shows how achievement has changed over time by jurisdiction, comparing Indigenous results in 2017 with those in 2010.



Figure 4: Indigenous achievement in numeracy has improved in all states



In numeracy, Indigenous achievement has improved across most year levels in every jurisdiction since 2010. About a third of these improvements are statistically significant. This is a substantial achievement, and demonstrates that sustained improvement is possible.

The biggest improvements are for Indigenous Year 9 students in NSW, Queensland, WA and SA, where the 2017 cohort is about 9 months ahead of the 2010 cohort. Queensland and Tasmania have the most consistent patterns of improvement, with statistically significant gains in three out of four year levels. At the other end of the scale, ACT has shown no statistically significant gains in Indigenous numeracy outcomes.

Reading results have been more mixed (see Chart 18 in the attachment). Most jurisdictions have improved in Year 9, with the exception of ACT and NT (which slid backwards) and Tasmania (which stagnated). Queensland and WA have improved significantly in Years 3, 5, and 9, with Queensland showing the bigger gains.

Writing results has generally gone backwards (see Chart 20 in the attachment) – as indeed have most non-Indigenous writing results. The biggest drops are in remote and very remote areas.

Across the three domains, metropolitan Indigenous students have generally seen larger gains (or smaller losses in writing) than regional or remote students. However, there are some noteworthy exceptions.

One outstanding achievement is the performance of very remote NSW Indigenous students in Years 3 and 5, who have made 6-to-12-month improvements in reading and numeracy and even bigger gains in writing.

Where the gaps are – and are not – closing

Table 3 shows where the average achievement gap is closing in numeracy, for each jurisdiction and year level. For example, the Year 9 numeracy gap in Tasmania is shaded light green because it it heading in the right direction: it has shrunk by 24 per cent since 2010, from about 1.6 years to about 1.2 years. Yet even this improvement is not enough; a gap must have shrunk by 45 per cent or more by 2017 to be on track to meet the target of halving by 2018.²³ Despite improved Indigenous outcomes in Year 3 numeracy, the gap is growing in most jurisdictions because non-Indigenous students are improving even faster. And the broad pattern is of not much change in the size of the gap.



Table 3: Where the numeracy achievement gap has-and has not-closed since 2010Percentage of achievement gap closed since 2010

Notes: Percentage change in the numeracy gap in EYL between Indigenous and non-Indigenous students from 2010 to 2017, by state and territory. A negative number (shown in a green cell) indicates that the gap has shrunk substantially, while a positive number (red cell) indicates that the gap has grown substantially. Yellow cells indicate little change in the size of the gap. Sources: ACARA; Grattan analysis

The tables on the right of page 22 in the attachment give the equivalent analysis for reading and writing. Looking across the three domains, there are bright spots – for example numeracy

²³ This is because there is only one more year left to reach the target of halving the achievement gap in 2018.

in Tasmania, and Year 9 reading in Victoria, SA and Tasmania – but they are few and far between. The seemingly impressive outcomes in writing are more a factor of non-Indigenous students going backwards even faster, with the notable exception of NSW Year 3 and 5.

This picture is much bleaker than that presented in the Closing the Gap report. In part, this is because using EYL rather than NMS is more sensitive to changes in non-Indigenous outcomes.²⁴ But mainly it is because the proportion of students above NMS is a poor way to compare the achievement and capabilities of different groups of students, as discussed previously.

What should be done

This analysis shows that Australia is not on track to close the gap in Indigenous achievement in literacy and numeracy. While demography is not destiny, there is no easy way to close the gap. However, here are three suggestions on what should be done.

First, measure and track the learning gaps more accurately. Presenting the gap in years of learning brings home the horrifying reality of educational outcomes for too many Indigenous Australians. The national target should reflect this reality. We recommend that this be done as part of the current Refresh of the Closing the Gap agenda.

Second, systematically evaluate schools where Indigenous outcomes are particularly high, or learning progress particularly strong. In its 2016 report on Indigenous Primary School Achievement, the Productivity Commission found only two evaluations of this type.²⁵

Even better, try to understand what is causing consistent improvement at scale. For example, researchers should try to identify the causes of the recent gains in very remote NSW schools in Year 3 and 5, to see if there are lessons that would apply more broadly.

Third, acknowledge the implications of the current gaps for 'Targeted Teaching'. Educational researchers have known for decades that a student learns best when teaching is targeted to what he or she is ready to learn.²⁶ Given that so many Year 7 and 9 Indigenous students are working at an early- to mid-primary school level, policy makers need to ensure that the teachers in remote and very remote schools have the training and support to teach basic reading, writing and numeracy. Few secondary school teachers have these skills.

This idea is not new. A colleague who is a primary school teacher recently spent time in a secondary school in Fitzroy Crossing, in remote Western Australia. Amy's role was to help teachers to teach basic reading. Amy's experience, incidentally, confirms that the huge gaps are not just an artefact of the NAPLAN tests: she was working with Year 10 students who were reading at a Grade 2 level.

These suggestions are far from sufficient. But Australia certainly won't make the changes needed unless we use a metric that accurately reflects the actual achievement levels of our Indigenous students.

²⁴ About 92-to-96 per cent of Non-Indigenous students are at or above NMS, and this figure varies very little over time.

²⁵ <u>https://www.pc.gov.au/research/completed/indigenous-primary-school-achievement</u>, pp.83-84.

²⁶ See <u>https://grattan.edu.au/report/targeted-teaching-how-better-use-of-data-can-improve-student-learning</u>



Analysis of Indigenous NAPLAN results

Attachment to Submission to Closing the Gap Refresh

7 February 2018

Purpose of this document



This document is the attachment to Grattan Institute's submission to the 2018 Closing the Gap refresh process (see https://closingthegaprefresh.pmc.gov.au)

It analyses Indigenous NAPLAN results using an updated version of our *Equivalent Year Levels* (EYL) metric, introduced in the 2016 Grattan Institute report "Widening Gaps". The data for this analysis was all sourced from http://reports.acara.edu.au/Home/Results

The attachment contains five sections:

- Comparison at a national level of Indigenous and non-Indigenous student average performance in NAPLAN, converted into EYL
- · Analysis of how average Indigenous student performance varies by geolocation
- Comparison of Indigenous student performance among states and territories, and how it has changed since 2010
- Analysis of the size of the achievement **gap** between Indigenous and non-Indigenous students, for each state and territory, and how much the gap has closed since 2010
- Comparison of Indigenous and non-Indigenous average performance in NAPLAN points. It shows that the size of the gap in years is not just a function of the conversion to EYL

Student outcomes are not adjusted for individual or school background. This is a deliberate decision to reflect the fact that Year 9 NAPLAN results reflect student capability in core literacy and numeracy skills close to the end of their school careers, and that these skills will affect career and life choices. This analysis is therefore not intended to analyse the value-added by schools or school systems, but to reflect the unadjusted outcomes of schooling as measured by NAPLAN.





Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Numeracy test), Grattan analysis





Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Reading test), Grattan analysis





Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Spelling test), Grattan analysis





In Reading, Very Remote Year 9 Indigenous students perform at about a Year 3 level



Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Numeracy test), Grattan analysis

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Indigenous achievement varies by state (I) Numeracy nstitute **Equivalent Year Level** 5 7 9 1 3 Non-Indigenous Metro students **Year 3-5** Year 5-7 Year 7-9 NSW Vic Qld WA SA Tas ACT NT Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL benchmark is the average performance of metropolitan non-Indigenous students over 2010-2016. 15 Indigenous performance and progress at a state level is not adjusted for socio-economic differences among states. Source: ACARA (NAPLAN Numeracy test), Grattan analysis

Indigenous achievement in Numeracy has generally improved since 2010



Notes: Mean NAPLAN scores translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL benchmark is the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Numeracy test), Grattan analysis

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Indigenous achievement in Reading has had mixed results since 2010



Notes: Mean NAPLAN scores translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL benchmark is the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Reading test), Grattan analysis

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Indigenous achievement in Writing has deteriorated markedly since 2011



Notes: Mean NAPLAN scores translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL benchmark is the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Writing test), Grattan analysis

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The achievement gap varies, but no state is on track to halve it by 2018 in any year level



		Average achievement gap					% of gap closed since 2010 ¹				
		Year 3	Year 5	Year 7	Year 9		Year 3	Year 5	Year 7	Year 9	
Numeracy	NSW	1.0	1.5	2.3	3.1		-2%	4%	0%	10%	
	Vic	0.9	1.2	2.0	2.5		-2%	-4%	-9%	15%	
	Qld	1.0	1.3	2.0	2.4		-12%	-8%	-5%	8%	
	WA	1.4	1.8	2.7	3.5		-12%	-7%	-8%	-10%	
	SA	1.1	1.3	2.0	2.5		-14%	-1%	-10%	15%	
	Tas	0.6	0.8	1.3	1.5		15%	1%	5%	24%	
	ACT	1.0	1.4	2.0	2.6		-16%	15%	4%	8%	
	NT	1.9	2.2	2.9	3.6		-10%	2%	-8%	7%	
	NSW	1.4	1.8	2.4	3.1		-3%	-11%	7%	2%	
D	Vic	1.2	1.5	2.1	2.5		-6%	-16%	-4%	15%	
adinį	Qld	1.4	1.7	2.3	2.8		-3%	-25%	-6%	-1%	
	WA	2.1	2.4	3.0	4.0		-6%	-15%	-1%	-17%	
	SA	1.6	1.8	2.4	3.0		-9%	-18%	-10%	9%	
e	Tas	0.9	1.2	1.7	2.0		-1%	-22%	4%	12%	
	ACT	1.5	1.8	2.4	3.1		-6%	11%	0%	-9%	
	NT	3.2	3.4	3.9	4.9		-12%	-12%	-9%	-7%	
	NSW	1.4	1.8	2.7	3.8		22%	22%	13%	13%	
_	Vic	1.1	1.5	2.5	3.2		-3%	11%	4%	13%	
ĉ	Qld	1.4	1.7	2.4	3.2		21%	21%	24%	14%	
:E	WA	2.4	2.7	3.6	4.9		3%	7%	5%	0%	
÷E	SA	1.8	2.0	2.9	3.8		1%	9%	9%	9%	
2	Tas	0.8	1.1	1.7	2.3		12%	1%	4%	16%	
	ACT	1.3	1.6	2.4	3.3		-1%	12%	14%	23%	
	NT	3.9	4.2	5.3	6.3		0%	5%	5%	4%	
		No gap			Large gap	On t the	rack to halve gap by 2018			Gap is grow	

Notes: Mean NAPLAN scores translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL benchmark for each cohort is non-indigenous students in the same state. 1. % of gap closed since 2011 for Writing. A positive number in the right hand tables (green cell) shows a gap that has shrunk. A negative number (red cell) shows a gap that is growing. To be on track, the gap needs to close by 50% by 2018, or about 45% by 2017. Source: ACARA, Grattan analysis

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Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. 24 Source: ACARA (NAPLAN Numeracy test), Grattan analysis

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Comparing Indigenous and non-Indigenous performance in NAPLAN points, Writing



Notes: Mean NAPLAN scores from 2010 to 2017 translated to equivalent year level (EYL) using an updated version of the methodology in Widening Gaps (2016). The EYL scale is based on the average performance of metropolitan non-Indigenous students over 2010-2016. Source: ACARA (NAPLAN Writing test), Grattan analysis

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