

# Literacy and Numeracy Achievement Outcomes for Victorian Students

May 2024 Independent assurance report to Parliament 2023–24:15

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Independent assurance report to Parliament

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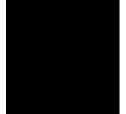


The Hon Shaun Leane MLC President Legislative Council Parliament House Melbourne The Hon Maree Edwards MP Speaker Legislative Assembly Parliament House Melbourne

Dear Presiding Officers

Under the provisions of the Audit Act 1994, I transmit my report Literacy and Numeracy Achievement Outcomes for Victorian Students.

#### Yours faithfully



Andrew Greaves Auditor-General 1 May 2024

The Victorian Auditor-General's Office (VAGO) acknowledges the Traditional Custodians of the lands and waters throughout Victoria. We pay our respects to Aboriginal and Torres Strait Islander communities, their continuing culture, and to Elders past and present.

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# Audit snapshot

#### What we examined

We examined whether the Department of Education (the department) is improving literacy and numeracy achievement outcomes for all Victorian government school students.

Agencies examined: Department of Education.

#### Why this is important

People need literacy and numeracy skills to participate in the community, thrive in the workplace and learn throughout their lives.

Some Victorian students begin school with fewer foundational skills and resources than their peers. It is important that schools ensure these students reach expected literacy and numeracy levels over the course of their education journeys.

This will equip these students to flourish as adults and help to tackle intergenerational disadvantage at its roots.

#### What we concluded

Since 2012, literacy and numeracy outcomes for Victorian government school students overall are stable.

The department is not improving outcomes for Aboriginal students and students experiencing disadvantage. Since 2012, the proportion of these students below the expected level has been stable or increased.

These students are not learning at a rate that will close the gap with other students.

The department's budget performance measures of student outcomes are not a fair or transparent presentation of students' skills.

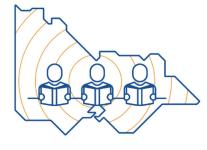
#### What we recommended

We made 3 recommendations to the department to:

- widen its literacy reporting to include writing as well as reading
- improve the way it reports student outcomes in its performance measures
- make government school literacy and numeracy results more accessible to the public.

→ Full recommendations

#### Key facts



In 2022, **10% of year 9 students** were reading at a year 7 level or below

At year 9, the average Aboriginal student is around **2 years behind their peers** in literacy and numeracy



State funding for the most disadvantaged students in government schools increased

Source: VAGO, using department data and expenditure data from the Australian Curriculum Assessment and Reporting Authority.

# Our recommendations

We made 3 recommendations to address 3 issues. The Department of Education has wholly accepted 2 and accepted one in principle.

Key issues and	corr	esponding recommendations	Agency response(s)
Issue: The depa	artmo	ent's reporting of literacy is too narrow	
Department of Education	1	Redefine literacy for reporting purposes so that student achievement in reading and writing is presented (see Section 2).	Accepted
Issue: The depa	artm	ent's budget performance measures are not a fair presentation of stude	nt outcomes
Department of Education	2	Review its performance measures for <i>Budget Paper No. 3: Service Delivery</i> so that they align fully with its strategic objectives and the Department of Treasury and Finance's Resource Management Framework (see Section 2).	Accepted
Issue: Public re	port	ing of all student outcomes is not transparent and easily accessible	
Department of Education	3	Make the NAPLAN outcomes for Victorian government school students and student subgroups available to the public in easy-to-understand and accessible formats.	Accepted in principle
		Such reporting should:	
		be available from the Department of Education's public website	
		<ul> <li>present, in a simple graphic format, changes over time in students' reading, writing and numeracy NAPLAN proficiency levels so that viewers understand outcomes for all government school students, as well as Aboriginal student and students experiencing disadvantage</li> <li>to the extent possible, meet disability accessibility requirements for web-based reporting (see Section 2).</li> </ul>	

# What we found

This section summarises our key findings. Sections 1 and 2 detail our complete findings, including supporting evidence.

When reaching our conclusions, we consulted with the audited agency and considered its views. The agency's full response is in Appendix A.

Why we did this audit	People need literacy and numeracy skills to thrive in the wider community and workplace, and to learn throughout their lives. Students develop these skills throughout school, from their foundation year to their final year.
The importance of improvement in literacy and numeracy	All students need to meet minimum standards in literacy and numeracy to realise their learning potential.
	Different factors affect a student's likelihood of achieving their learning potential. Families' experiences of education, work and income influence students' learning skills and resources.
	Many Victorian students begin school with the foundational skills expected for their age and have learning support available outside school.
	Some Victorian students begin school with fewer foundational skills and resources than their peers. Aboriginal students, students experiencing the most disadvantage and students with English as an additional language (EAL students) are more likely to start school with skills below the expected level.
	It is important that schools ensure these students reach expected literacy and numeracy levels over the course of their education journeys.
Reporting improvement for students most in need of support	Each year, the Department of Education (the department) reports on all Victorian students' literacy and numeracy skills. It does this in the Victorian <i>Budget Paper No. 3: Service Delivery</i> and its annual report.
	It only reports the proportion of students who score in the top 3 or top 2 National Assessment Program – Literacy and Numeracy (NAPLAN) bands in reading and numeracy. It does not publicly report specific outcomes for disadvantaged students or students with low English proficiency.
	Between 2016 and 2019, the department reported on its progress towards Education State targets each year. These targets aim for equity and excellence for all Victorian students. They seek to break the link between disadvantage and lower education achievement.
	The department has not reported its progress on these targets since 2019.
	Both types of reporting describe the overall outcomes for all Victorian students in both government and non-government schools.
	The department does not publicly report outcomes for government school students specifically, even though it manages these schools.

	NAPLAN
	The National Assessment Program – Literacy and Numeracy (NAPLAN) is a series of tests that assesses Australian students' literacy and numeracy skills in years 3, 5, 7 and 9.
	Until 2022, NAPLAN scores were split into 10 bands, 6 of which were used for each year level.
	From 2023, NAPLAN reporting changed from these 10 bands to 4 proficiency levels.
	These changes disrupt time series analysis from 2023 onwards. Despite these changes, the proficiency level of 'needs additional support' is similar to the band 'below national minimum standard'.
Reporting literacy and numeracy	The department reports NAPLAN reading achievement alone as representative of students' literacy skills. It does not report writing achievement. This means it does not report the full range of students' literacy skills.
	The department reports NAPLAN numeracy achievement in full.

Our key findings Our findings fall into 4 key areas:

1	Student literacy and numeracy outcomes have been stable since 2012.
2	The department has not improved outcomes for Aboriginal students and students experiencing disadvantage since 2012.
3	Aboriginal students and students experiencing disadvantage are not learning at a rate that will close the gap with other students.
4	The department's reported measures are not a fair or transparent presentation of student outcomes.

# Key finding 1: Student literacy and numeracy outcomes have been stable since 2012

Outcomes for students overall have not significantly improved For Victorian students overall, literacy and numeracy outcomes have been stable since 2012. When the department looks at average NAPLAN scores for all students, these have improved for literacy since 2012. But there are also areas where student achievement has either not changed or declined slightly since 2012. We looked at whether the department is meeting its Education State targets for student

achievement and improvement for the period 2012–22. These targets for student proportion of all students achieving at a high level and breaking the link between disadvantage and students' learning outcomes.

We found that these outcomes need to improve in a sustained and widespread way if the department is to meet these targets and more students are to realise their learning potential.

To achieve this, the department needs to ensure:

- more students each year meet or exceed their expected learning level
- more students improve at secondary school
- improvement for all types of students.

Based on the department's reporting, it is not on track to make the significant improvement in student outcomes the Education State targets seek.

### Key finding 2: The department has not improved outcomes for Aboriginal students and students experiencing disadvantage since 2012

Outcomes are While there has been some improvement in NAPLAN scores for Aboriginal students and students not improving experiencing disadvantage, the proportion of these students below expected level is not for some improving over time. students At year 3, a higher proportion of Aboriginal and disadvantaged students are below expected

reading and numeracy level than their non-Aboriginal and non-disadvantaged peers. There has been very little change since 2012.

By the time Aboriginal and disadvantaged students reach year 9, the proportion of them reading below expected level has significantly increased. In 2022, this proportion was over 20 per cent for Aboriginal students and the most disadvantaged students.

Aboriginal and disadvantaged students are also more likely to be below expected level in numeracy than other student groups. In 2022, this proportion was about 10 per cent, compared to less than 5 per cent for students overall.

When a year 9 student is categorised as below the expected reading and numeracy level, this means their numeracy skills are at a year 7 level or lower.

### Key finding 3: Aboriginal students and students experiencing disadvantage are not learning at a rate that will close the gap with other students

Some students Aboriginal students and students experiencing disadvantage are more likely to begin their learning are not catching journey behind the expected level for their age. up They need to learn at a faster rate than their peers to 'catch up' and meet the expected level of achievement. This may take some years.

> These students are not learning at a rate that will close the achievement gap between them and their non-Aboriginal or non-disadvantaged peers.

### Key finding 4: The department's reported measures are not a fair or transparent presentation of student outcomes

The department The department's reporting of reading outcomes is not a good presentation of students' literacy does not report skills. It presents students' reading outcomes, but not writing outcomes. Presenting both would outcomes for all give a more complete understanding of their literacy skills. student subgroups

Many students read better than they write, so the department is not presenting a clear picture of literacy as a whole.

The department's reporting of numeracy outcomes is a full presentation of students' numeracy skills.

The department reports outcomes against budget measures that focus on students in all Victorian schools and those that achieve at high levels.

This is not a fair presentation of the department's performance, as it does not report outcomes for government students specifically. It also does not report outcomes for groups of students whose achievement is less likely to meet expected levels.

Other public reporting of student outcomes is not easily accessible. This means parents do not have a fair understanding of student achievement in government schools.

There are opportunities for the department to revise how it reports government school NAPLAN results as new education agreements are made at the national level. It may also consider how other jurisdictions publicly report outcomes for their government school students.

# 1. Student literacy and numeracy outcomes

In 2015, the Victorian Government set ambitious goals for improving literacy and numeracy outcomes. This included targets to improve outcomes for students overall and to close the gap between disadvantaged students and their peers.

Across this period, literacy and numeracy outcomes for all Victorian students have been stable.

For Aboriginal students and students experiencing the most disadvantage, the proportion below expected levels of literacy and numeracy has been stable or increased. These students are not learning at a rate that will close the gap with other students.

### Literacy and numeracy outcomes in Victoria

Education State targets for literacy and numeracy

 The Victorian Government sets its strategic objectives for Victorian students' literacy and numeracy within its Education State reform agenda.

In 2015 the government introduced the Education State reforms to build 'an education system that produces excellence and reduces the impact of disadvantage'. The government has invested \$10.8 billion in this initiative.

Education State has 4 target areas that encompass outcomes for Victorian students across government and non-government schools.

Target area	Ambition
Learning for life	More students achieving excellence in reading, maths, science, critical and creative thinking, and the arts.
Happy, healthy and resilient kids	Building the resilience of our children and encouraging them to be more physically active.
Breaking the link	Supporting more students to stay in school and breaking the link between disadvantage and outcomes for students.
Pride and confidence in our schools	Parents and communities will report their level of pride and confidence in their local government schools.

Source: Education State targets | Victorian Government (www.vic.gov.au).

Two of the targets for Learning for life focus on increasing the proportion of year 5 and year 9 students excelling in literacy and numeracy.

For year 5 students, the target for 2020 is that 25 per cent more year 5 students have reached the highest levels of achievement in reading and maths.

	For year 9 students, the target for 2025 is that 25 per cent highest levels of achievement in reading and maths.	more year 9 students	will reach the
	One of the government's targets for Breaking the link is to achievement between disadvantaged and non-disadvanta 15 per cent by 2025.		
School performance	The government's Education State targets for student achi government and non-government schools.	evement include stude	ents in both
needed to achieve targets	In 2023, 63 per cent of Victoria's students were enrolled in	government schools.	
	This means the department needs to significantly improve students if it is to meet the Education State targets.	outcomes for governi	ment school
Government	The department distributes Commonwealth and Victorian	government funding f	or schools.
funding to improve student outcomes	The amount of funding each school receives is based on the an estimate of how much total public funding a school needs.		
	The Schooling Resource Standard consists of a base level loadings based on student and school attributes to help m		, and additional
	Some of the loadings are for:		
	Aboriginal and Torres Strait Islander students		
	• students with low English proficiency		
	• students experiencing socio-educational disadvantage	е.	
	The department also distributes funding to schools for tar outcomes for students with low literacy and numeracy. Th Numeracy Support initiative and the Tutor Learning Initiat	is includes the Middle	
	The department expects other funding for student health students' learning and achievement.	and wellbeing initiative	es to also support
Investment in education has increased	For the period from 2015 to 2021, the Victorian Governme government school student by 33.7 per cent, adjusted for	inflation.	
	This reflects the government's commitments in the curren Agreement.	t National School Fund	ling Reform
	It has also increased the additional funding it allocates to a advantage level using the Index of Community Socio-educ		of social
	The government's	Increased from	То
	base funding per government school student per year	\$11,522* in 2015	\$15,405 in 2021.
	average total funding per student in the lowest quarter of socio-educational advantage per year Note: *2015 figures are adjusted for inflation, 2021.	\$15,426* in 2015	\$21,478 in 2021.
	Source: Australian Curriculum, Assessment and Reporting Authority.		

Measuring<br/>literacy and<br/>numeracyNAPLAN is an annual series of tests for students in years 3, 5, 7 and 9. It assesses the learning<br/>domains of:

- numeracy
  - reading
  - writing
  - spelling
- grammar and punctuation.

NAPLAN tests give point-in-time insight into student progress and achievement in literacy and numeracy. The government intends the program's results to complement teacher judgement and other formal and informal testing in schools.

Expected literacy and numeracy levels Between 2008 and 2022, the Australian Curriculum, Assessment and Reporting Authority (ACARA) used a range of 10 bands to report student literacy and numeracy for years 3, 5, 7 and 9. Each band covered a particular range of NAPLAN scores.

For each year level, ACARA defined the second lowest band for each year as the national minimum standard. Figure 1 shows there are 4 bands above each minimum standard, and one band below. This is because students were tested for proficiency in skills appropriate to their year level.

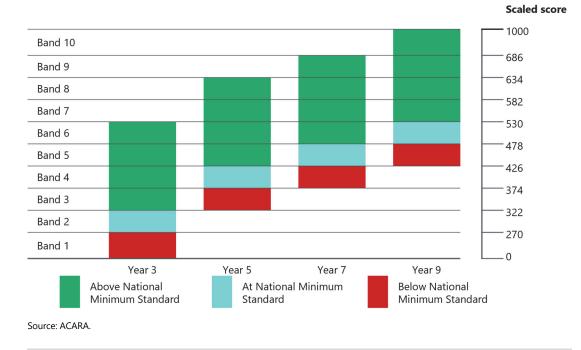


Figure 1: NAPLAN achievement bands for each year level

What we examined

We examined the average NAPLAN literacy and numeracy outcomes for all government school students for the period 2012–22. We looked at all the literacy domains:

- reading
- writing
- spelling
- grammar and punctuation.

We did this by analysing NAPLAN data the department supplied.

We also looked at results for some student subgroups:

- Aboriginal students
- students experiencing disadvantage
- EAL students.

To better understand the department's performance in improving outcomes for these students, we have focused on the proportion of students below the national minimum standard. We describe this as 'students below expected level'.

How we defined<br/>disadvantaged<br/>studentsThe department measures a student's social disadvantage by calculating their Student Family<br/>Occupation and Education level. This index looks at the student's family's work and education.<br/>The department defines 2 levels of social disadvantage. It uses these levels to:

- decide how much equity funding to give to schools
- monitor these students' outcomes.

Level	It describes students with parents who	Or
1 is a higher level of disadvantage.	are unemployed with below diploma-level education	have lower-skilled jobs with very low or low education.
2 is a lower level of disadvantage.	have various combinations of medium and low-skilled jobs and education levels	are unemployed with a diploma level education.

Greater disadvantage at secondary schools	Using these 2 levels of disadvantage, we found that government secondary schools have a higher proportion of disadvantaged students than government primary schools do.
	Of the students whose 2022 NAPLAN results we analysed, about 20 per cent of those at primary school were eligible for either level 1 or 2 equity funding. This rose to about 25 per cent of secondary school students.
	This increase is not large enough to affect the outcomes of our analysis.
Further information	For more in-depth background information, please see <u>Appendix C (Audit scope and method</u> ) and Appendix D (Audit context)

### Student literacy and numeracy outcomes have been stable since 2012

Outcomes have not worsened for students overall	For all Victorian school students, literacy and numeracy outcomes have been stable since 2012. There are areas where student outcomes have clearly improved, such as reading for year 3 and year 5 students. But there are also areas where student achievement has either not changed or declined slightly since 2012.
Outcomes for government school students	For the 10 years since 2012, the department has improved some outcomes for some government school students in literacy, though performance varies across literacy skills. This improvement is more likely during primary school than secondary school.
	From 2012 to 2022, numeracy outcomes were relatively stable for EAL students and students overall.

Learning for life The department's Learning for life targets focus on excellence for all Victorian school students.

While there have been improvements for some students, outcomes for most students have stayed the same since 2012.

Based on the department's reporting, it is not on track to make the significant improvement in student outcomes sought by the Education State targets.

This analysis is in the department's annual reports and in its performance statements in the budget papers. For this reason, we have not replicated the department's analysis for students achieving above expected level in this report.

# The proportion of students not meeting expected levels has not improved since 2012

Understanding outcomes for students who most need support	The department's public reporting focuses on students in the top 2 or 3 NAPLAN bands for all Victorian students.
	This is a narrow view of the performance of government schools. It does not show whether the department is succeeding in meeting its objectives of breaking the link between student disadvantage and achievement.
	The department's current reporting does not give a clear view of its performance in equipping students with basic skills they need to participate in the community.
Breaking the link	The Breaking the link target aims to reduce the gap in outcomes between disadvantaged students and non-disadvantaged students.
	The target is to reduce the gap in reading achievement between disadvantaged and non-disadvantaged students in years 5 and 9 by 15 per cent, by 2025.
	The target is for all students in Victorian government and non-government schools.
	However, the department is unlikely to meet this target without a sustained reduction in the percentage of government school students below expected reading levels.
The department has not reduced the proportion of students	The department has not improved the percentage of students reading below expected levels for the period 2012–22. This is the case for students overall as well as all subgroups and year levels (see Figure 2).
below expected reading level	This means there was a similar percentage of students reading below expected levels in 2022 as there was in 2012. Year 5 is an exception – outcomes in 2022 were similar to those in 2014.

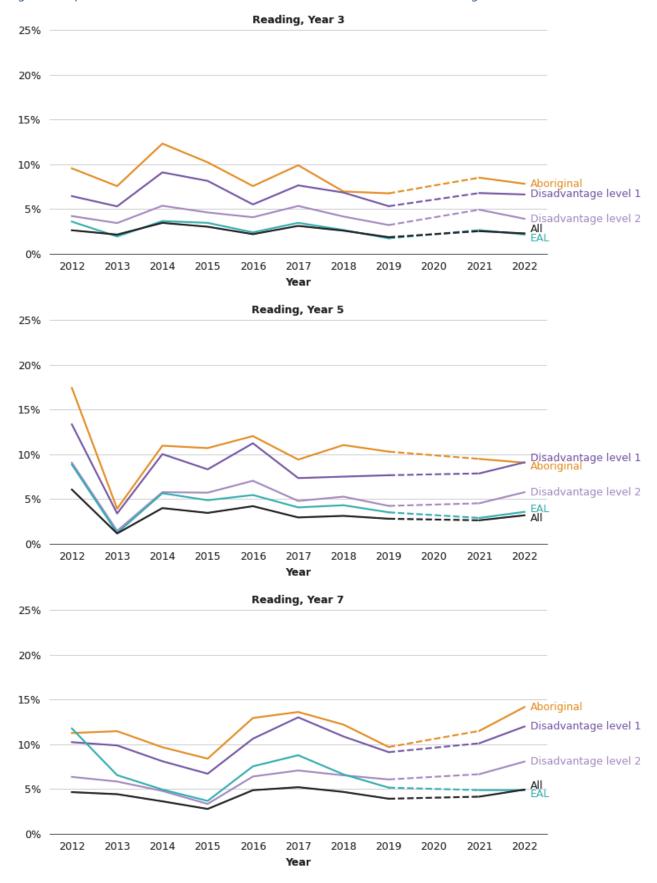
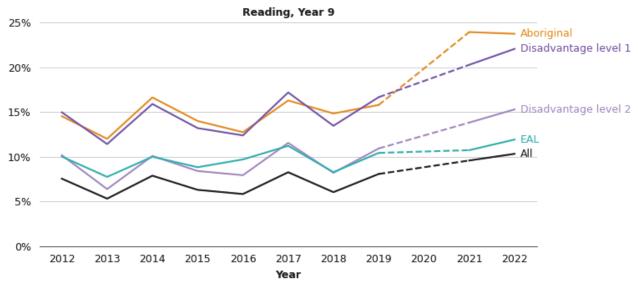


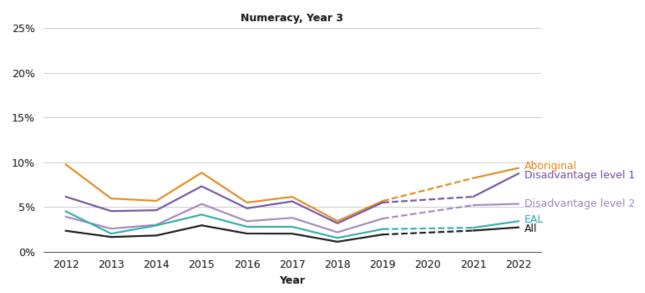
Figure 2: Proportion of Victorian students below the national minimum standard in reading, 2012 to 2022



Note: Victorian year 5 reading results between 2012 and 2014 show a similar trend to other states and territories. See Appendix D, Figure D1. Source: VAGO, using department data.

The departmentThe department has not improved the percentage of students below expected numeracy levelhas not reduced<br/>the proportion<br/>of students<br/>below expected<br/>numeracy levelThe department has not improved the percentage of students below expected numeracy level

Figure 3: Proportion of Victorian students below the national minimum standard in numeracy, 2012 to 2022





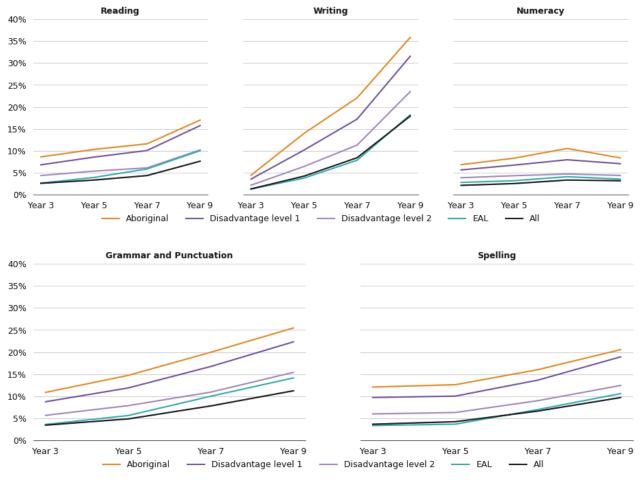
### The proportion of students below expected literacy level increases with year level

Students below<br/>expected level<br/>by year levelOverall, the department has improved some literacy outcomes for some students, though<br/>performance varies across each of the 4 literacy skills. More of this improvement happened at the<br/>primary level.

When we examined average NAPLAN scores, we found a pronounced increase in the proportion of students below expected level from year 7 up for all literacy skills (see Figure 4). This is most prominent for writing: from 1 per cent of year 3 students to 18 per cent of year 9 students.

Students below expected numeracy levels also increases, though less than for literacy levels.

Figure 4: Proportion of Victorian students below national minimum standards, by year level and subgroup



Source: VAGO, using department data.

### The department is not closing the achievement gap for some groups of students

Some students need a faster rate of learning to catch up

Some students start school with fewer foundational skills in literacy and numeracy.

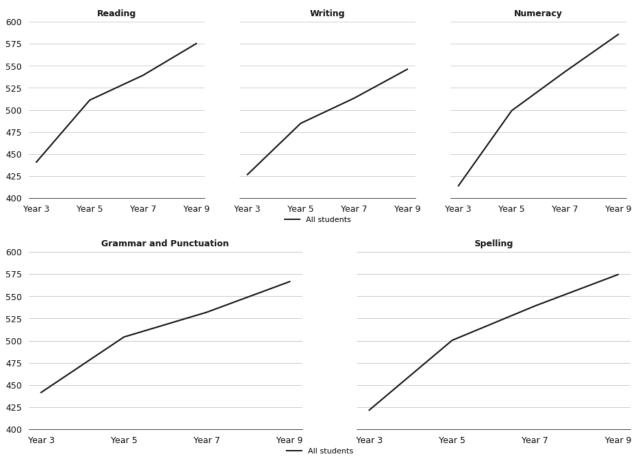
Students experiencing high levels of disadvantage, Aboriginal students and EAL students are more likely to begin their learning journey behind the expected level for their age.

These students need to learn at a faster rate than their peers to 'catch up' and meet the expected level of achievement. This may take some years.

If they are not supported to learn more quickly, these students may never catch up and are likely to leave school still behind the wider population.

#### The student learning journey

How quickly students develop literacy skills and knowledge changes over their time at school. It y increases rapidly up until year 3 and slows down from year 5 to year 10. Using NAPLAN data, we see this learning curve from year 3 to year 9.





Source: VAGO, using department data.

Achievement gaps are not closing for some student groups	Our analysis shows that all students are learning and building up their skills in literacy and numeracy at broadly similar rates.
	This means that, except for EAL students, other subgroups are not being taught skills quickly enough to overcome literacy and numeracy gaps. On average, EAL students have faster rates of learning. This means they achieve slightly better results than other students.
	For all disadvantaged student groups, the achievement gap closes slightly over time, except in writing.
	On average, Aboriginal students are not learning quickly enough to close the skill gaps. For writing skills, the gap widens.
Achievement gaps are not	Current data shows Aboriginal students need to make up an achievement gap of one to 3 years over their learning journey.
closing for Aboriginal students	On average, Aboriginal students start school with lower literacy and numeracy skills. While they learn at a similar rate to non-Aboriginal students in most domains, this means the achievement gap persists throughout their education.
	At year 5, the average Aboriginal student is one year below expected level in most literacy skills. Their writing skills are 2 years below expected level. This gap increases to 3 years by year 9.

This means an average year 9 Aboriginal student has writing skills similar to an average year 6 or year 7 student from the wider population.

The rate of learning slows for numeracy as well. By year 9 the average Aboriginal student is achieving at year 8 level.

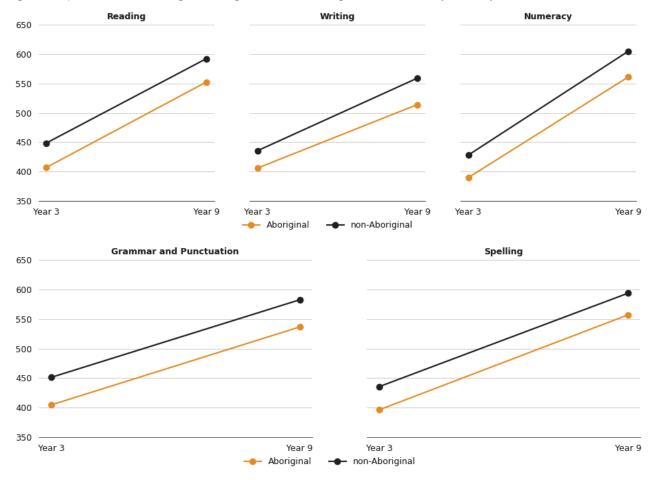


Figure 6: Expected rate of learning for Aboriginal and non-Aboriginal students from year 3 to year 9

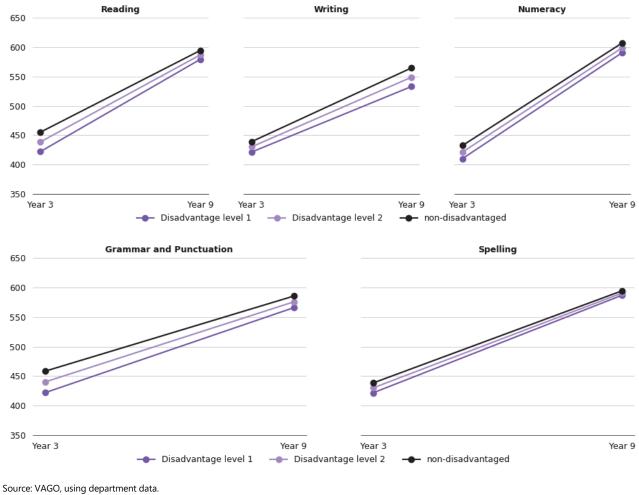
Source: VAGO, using department data.

Achievement gaps are not closing for disadvantaged students Current data shows disadvantaged students need to make up an achievement gap of one to 2 years over their learning journey (see Figure 7).

Both level 1 and 2 disadvantaged students have lower achievement outcomes than non-disadvantaged students. They are acquiring numeracy and some literacy skills at a slightly faster rate, but not enough to close the gap.

On average, disadvantaged students acquire writing skills at a slower rate than their peers. This means the gap widens.

These effects are greater for level 1 disadvantaged students (2 years behind) than level 2 students (one year behind).



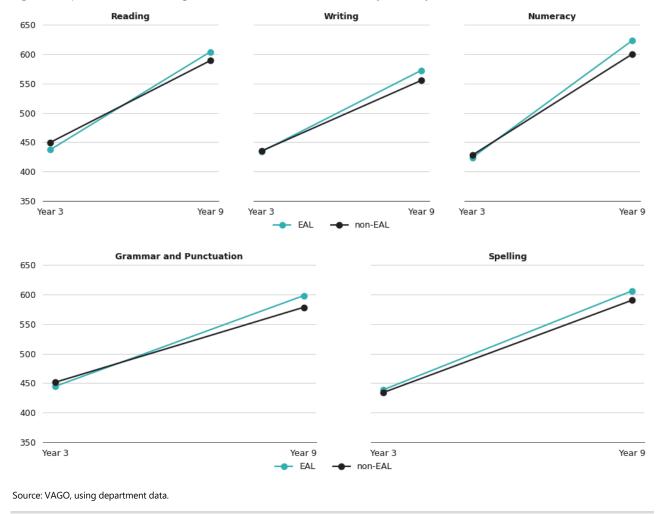
#### Figure 7: Expected rate of learning for disadvantaged and non-disadvantaged students from year 3 to year 9

-

Achievement gaps are closing for EAL students

Current data shows EAL students have similar scores to the wider student population at year 3. We found these students are learning more quickly on average, and are more likely to finish

school at or above the expected level of achievement and ahead of their non-EAL peers.



#### Figure 8: Expected rate of learning for EAL and non-EAL students from year 3 to year 9

# 2. Reporting literacy and numeracy outcomes

The department's reporting of literacy outcomes is limited to reading and not a full presentation of students' literacy skills. Student achievement varies significantly between the domains of reading and writing. Reporting of literacy as both reading and writing is a more accurate presentation of students' skills.

The department's reported measures are not a fair or transparent presentation of student outcomes. This means that Victorians are not able to form a view on whether it is achieving its objectives of closing the achievement gap for some students.

### The department assesses and understands student literacy and numeracy

The departmentThe department collects and uses a broad range of student performance information, but its<br/>public reporting of this data is limited.student<br/>outcomesIt collects student assessment and NAPLAN data then analyses it to understand literacy and<br/>numeracy outcomes for all Victorian government school students over time and by subgroup.

These subgroups include:

- Aboriginal students
- students experiencing disadvantage
- EAL students.

The department assesses student literacy and numeracy in line with all elements of the Victorian Curriculum for English and Mathematics. Its data systems record this data for each student, as well as their NAPLAN scores.

The department gives schools and regional offices regular and detailed analysis of student outcomes so that they understand trends in achievement.

It also monitors student outcomes at a statewide level and uses this data to plan its support for schools and their students.

### The measures the department reports for literacy are too narrow

The department<br/>fully reports<br/>numeracyThe department reports students' numeracy achievement using the NAPLAN numeracy domain.NAPLAN assesses students' knowledge and skills against 3 strands of number and algebra,<br/>measurement and geometry, and statistics and probability. These align with the skills taught in the<br/>curriculum.

	NAPLAN assesses these skills in a single test and records a score for each student as the numeracy domain.							
The department reports only	The department only reports the NAPLAN reading domain as its measure of Victorian students' literacy skills. This is in line with its reporting requirements.							
reading	However, students' reading and writing outcomes can vary substantially. Together, reading and writing are the 2 key elements of literacy – to understand others and to express oneself.							
	This means that reporting reading only is not an accurate presentation of literacy achievement for all students and student subgroups.							
Reporting both reading and writing changes literacy outcomes	<ul> <li>Our understanding of students' literacy changes when both reading and writing are reported.</li> <li>For 2022, we compared students' achievement in both reading and writing. We did this for:</li> <li>all government school students</li> <li>Aboriginal students</li> <li>students</li> </ul>							
	students experiencing disadvantage							
	• EAL students. Except for EAL students, the proportion of students below expected level is higher for writing than for reading.							
Student reading and writing skills differ	The proportion of all students who read below expected levels increases from 3 per cent in year 3 to 10 per cent in year 9. The increase is more substantial for writing. It rises from 1 per cent in year 3 to 14 per cent in year 9.							
	Figure 9: Proportion of all students below expected level in reading and writing in 2022 by year level							
	35% Reading Writing							
	30%							
	25%							
	20%							
	15%							
	10%							
	5%							
	0%							
	All Source: VAGO, using department data.							

The proportion of Aboriginal students below expected reading level is stable throughout primary school.

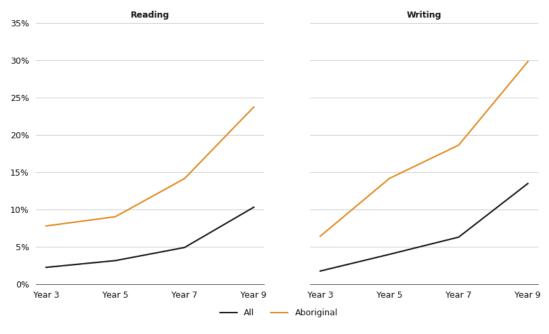
Literacy outcomes for Aboriginal students

This changes at secondary school. By year 9, nearly 25 per cent of Aboriginal students are reading below expected level. The writing gap widens more dramatically.

ln	About	
year 3	8 per cent	
year 5	9 per cent	of Aboriginal students are reading below expected level.
year 7	14 per cent	
year 9	24 per cent	

ln	About	
year 3	6 per cent	
year 5	15 per cent	of Aboriginal students are writing below expected level.
year 7	19 per cent	
year 9	30 per cent	

## Figure 10: Proportion of Aboriginal students below expected reading and writing levels in 2022 by year level

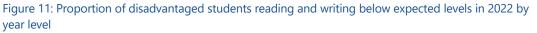


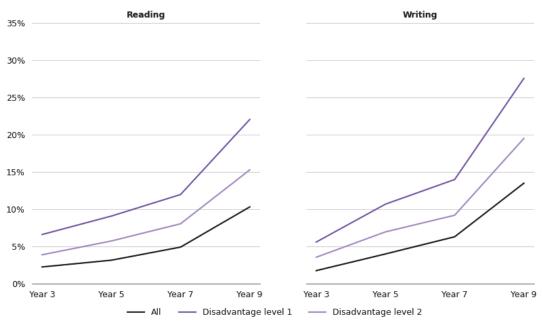
Source: VAGO, using department data.

Literacy outcomes for disadvantaged students The level of disadvantage students experience matters for both reading and writing achievement.

More highly disadvantaged students (level 1) are more likely to both read and write below expected level than less disadvantaged students (level 2).

Their achievement gap also grows more quickly. By year 9, 28 per cent of the most disadvantaged students are reading and writing below expected level.



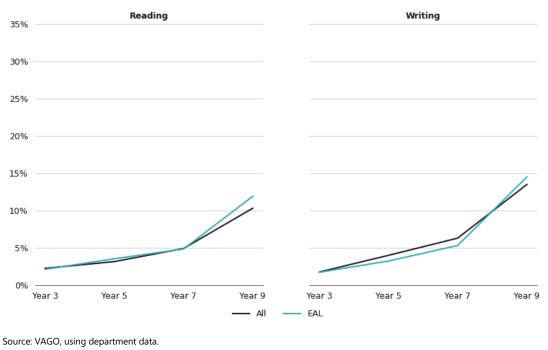


Source: VAGO, using department data.

#### Literacy outcomes for EAL students

Until year 7, a very low proportion of EAL students read and write below expected levels. Like with other subgroups, this proportion increases significantly at year 9.

Figure 12: Proportion of EAL students reading and writing below expected levels, 2022 by year level



# The department's reported budget measures are not a fair presentation of student outcomes

The department publicly reports on a subset of targets	The Victorian Government sets Education State targets each year for:						
	<ul> <li>the proportion of students above the bottom 3 NAPLAN bands (for all students and Aboriginal students)</li> </ul>						
-	• the proportion of students in the top 2 NAPLAN bands (for all students).						
	The department reports against the Victorian Government's strategic objectives in its performance statement in Budget Paper No. 3.						
	This statement is intended to show whether the department achieved the targets for literacy and numeracy that year.						
	The department's annual reports show progress against these measures over a 5-year period.						
Reporting does not include	The department's current reporting of students' outcomes does not include the proportion of students below expected level, each year or over time.						
student cohorts below expected levels	These students are more likely to be Aboriginal, experiencing high levels of disadvantage or have English as an additional language. Students in these subgroups experience factors known to impair their education achievement.						
	When the department does not report students below expected level, it does not fully present how it is performing in improving outcomes for students who most need learning support.						
	This gap in reporting is very important because it does not allow the community to understand whether the department is meeting the government's stated objective to reduce the impact of disadvantage on student outcomes.						
	From 2023, ACARA has changed the way it reports students' NAPLAN achievement. However, it will still be possible to report those students' whose achievement is not at expected level. These students will be identified as 'needs additional support' rather than 'below national minimum standard'.						
Fair presentation of government	In 2023, VAGO tabled the report <i>Fair Presentation of Service Delivery Performance 2022</i> . That report concluded that service delivery performance is not clearly visible to Parliament and the community.						
service delivery	We found that current Budget Paper No. 3 reporting makes it hard to understand how well departments are delivering services.						
	Fair presentation of service delivery means that performance measures should be relevant to outputs. They should be comparable, useful, clear and attributable to the department.						
Model performance statement for	That report included a model performance statement for the department that described these measures. This model performance statement identified that the output for the department is an educated student. Output measures for a student include:						
education	academic results, such as NAPLAN						
	engagement, measured as days absent from school						
	attainment of the Victorian Certificate of Education.						
	It recommended that the department report NAPLAN and attainment results as an indicator of its effectiveness.						

Importantly, it also recommended that the department report these results for disadvantaged students, as well as students in metropolitan, regional and rural areas.

## The department should make more information available to the public

The department no longer reports against Education State targets	The department began reporting progress towards Education State targets in 2016 in its annual reports. These reports compared that year's achievement to the 2025 targets. For example, reporting against the Breaking the link target compared that year's gap in NAPLAN scores between disadvantaged and non-disadvantaged students with the 2025 target. The department made its last report in 2019. It has not updated information about progress since.
Performance data is not easily accessible	Detailed information about student performance is publicly available but not easy to access. This makes it difficult for parents and the community to understand whether the department is meeting the government's objectives to improve student achievement.
	The department does not comprehensively report NAPLAN results for government school students. Other jurisdictions, such as Western Australia and the Northern Territory, do report these results for their government schools.
	School-level data is available and accessible through the Australian Government's My School website. This website does not provide system-level data about government or non-government schools.
	ACARA presents detailed NAPLAN results for each state and territory. It makes data publicly available for analysis, and this reporting does include student subgroups and parent background.
	As a result of agreement between state, territory and Australian governments, ACARA does not report the difference between government and non-government schools.
	More importantly, understanding ACARA's reporting requires significant data literacy skills.
	This makes it less accessible to parents and the community who most need information about school performance.
Performance data is the foundation for system	When the Victorian Government reports education outcomes at the system level, it combines the outcomes of government and non-government students. This does provide a view of education outcomes in Victoria. But it is not a complete view.
improvement	The department plays a number of distinct roles in delivering education. It:
-	manages the education system
	funds that system
	sets policies for it
	provides education services.
	It is reasonable and desirable that all Victorians can easily understand its performance in these roles.
	Measurement is a foundation for understanding and improving performance. As such, the

department should clearly report its performance as a service provider.

# Appendices

Appendix A: Submissions and comments

Appendix B: Abbreviations, acronyms and glossary

Appendix C: Audit scope and method

Appendix D: Audit context

Appendix E: Modelling of student outcomes

# Appendix A: Submissions and comments

We have consulted with the Department of Education, and we considered its views when reaching our audit conclusions. As required by the *Audit Act 1994*, we gave a draft copy of this report, or relevant extracts, to that agency and asked for its submission and comments.

Responsibility for the accuracy, fairness and balance of those comments rests solely with the agency head.

### **Responses received**

Agency	Page
Department of Education	A-2

#### **Response provided by the Secretary, Department of Education**



Department of Education

Secretary

2 Treasury Place East Melbourne Victoria 3002 Telephone +61 3 9637 2000

COR24136381

Mr Andrew Greaves Auditor-General Victorian Auditor-General's Office

Dear Mr Greaves

#### Proposed report on Literacy and Numeracy Achievement Outcomes for Victorian Students

Thank you for providing the proposed report on *Literacy and Numeracy Achievement Outcomes for Victorian Students*.

The Department of Education is committed to improving literacy and numeracy achievement outcomes for all Victorian government school students and welcomes recommendations that might lead to further improvements.

I'm pleased that the report acknowledges that there are areas where student learning outcomes have clearly improved since 2012. Data published by the Australian Curriculum, Assessment and Reporting Authority (ACARA) shows that Victorian schools have a consistent record over the past decade of lifting literacy achievement levels. Victoria's performance in Years 3, 5, 7 and 9 has demonstrably improved over the decade to 2022 in all NAPLAN literacy domains (reading, writing, spelling, grammar, and punctuation). In 2023, Victorian students achieved the highest NAPLAN scores in the country, with Victoria ranked first or second on 16 of the 20 NAPLAN domains.

The department acknowledges that there is still work needed to lift numeracy achievement, and literacy and numeracy outcomes for disadvantaged and Koorie students. These are challenges being experienced by school systems right across Australia and the department is committed to pursuing evidence-based strategies to drive improvements in these areas.

The department has reviewed the proposed report and has attached an action plan to address the recommendations in the report.

Your details will be dealt with in accordance with the Public Records Act 1973 and the Privacy and Data Protection Act 2014. Should you have any queries or wish to gain access to your personal information held by this department please contact our Privacy Officer at the above address



### Response provided by the Secretary, Department of Education – *continued*

hould yc irector,	ou wish to dis Assurance,	scuss departme Knowledge,	ent's res and  .	sponse, ple Executive	ease contac Services	on <b>and</b>	, A/	Executive or	
ours sinc	cerely								
enny Att									
ecretary 5/03/202									
ncl.: Tl	he department	t's action plan							

#### Response provided by the Secretary, Department of Education – *continued*

#### DE action plan: Literacy and Numeracy Achievement Outcomes for Victorian Students

#	Recommendations: That DE:	Response	#	The Department will:	Ву:
1	Redefine literacy for reporting purposes so that student achievement in reading and writing is presented.	Accept	1	Re-define its definition of literacy to include Writing in addition to Reading.	June 2025
2	Review its performance measures for Budget Paper 3 so that they align fully with its strategic objectives and the Department of Treasury and Finance's Resource Management Framework.	Accept	2	Review 2024-25 measures to ensure continued alignment with the requirements of the Resource Management Framework. The department completed a full-scale review of the performance statement for 2023-24 which included revising objectives, objective indicators and performance measures to better reflect the Resource Management Framework.	December 2024
3	Make the NAPLAN outcomes for Victorian government school students and student subgroups available to the public in easy to understand and accessible formats. Such reporting should: • be available from the department's public website • present, in a simple graphic format, changes over time in students' reading, writing and numeracy NAPLAN proficiency levels so that viewers understand outcomes for all government school students, as well as Aboriginal student and students experiencing disadvantage • to the extent possible, meet disability accessibility requirements for web-based reporting.	Accept in principle	3	<ul> <li>Provide advice to government on publishing government school NAPLAN data pending:</li> <li>consultation with Australian Curriculum and Assessment Reporting Authority and non-government school sectors to seek agreement on publishing of NAPLAN results by sector</li> <li>the reporting requirements around NAPLAN arising from the new National School Reform Agreement</li> <li>development of a methodology to adjust for socioeconomic disadvantage.</li> </ul>	August 2025

# Appendix B: Abbreviations, acronyms and glossary

Abbreviations	We use the following abbreviations in this report:						
	Abbreviation						
	the department	Department of Education					
Acronyms	We use the following acronyms in this report:						
	Acronym						
	ACARA	Australian Curriculum, Assessment and Reporting Authority					
	EAL	English as an additional language					
	NAPLAN	National Assessment Program – Literacy and Numeracy					
	VAGO	Victorian Auditor-General's Office					

#### Glossary

This glossary includes an explanation of the types of engagements we perform:

Term	
Reasonable assurance	We achieve reasonable assurance by obtaining and verifying direct evidence from a variety of internal and external sources about an agency's performance. This enables us to express an opinion or draw a conclusion against an audit objective with a high level of assurance. We call these audit engagements. See our assurance services fact sheet for more information.
Limited assurance	We obtain less assurance when we rely primarily on an agency's representations and other evidence generated by that agency. However, we aim to have enough confidence in our conclusion for it to be meaningful. We call these types of engagements assurance reviews and typically express our opinions in negative terms. For example, that nothing has come to our attention to indicate there is a problem.
	See our assurance services fact sheet for more information.
Students below expected level	This describes students whose NAPLAN score is below the national minimum standard expected for their year level.

# Appendix C: Audit scope and method

#### Scope of this audit

Who we	We examined the following agency:						
examined	Agency	Their key responsibilities					
	Department ofThe department operates government primary and secondary schools. In t context of literacy and numeracy outcomes, the department's responsibilit include:						
		<ul> <li>raising learning, development, engagement and wellbeing outcomes for all Victorian students</li> <li>monitoring achievement outcomes</li> </ul>					
		<ul> <li>providing data literacy support for school leaders to interpret performance data (such as NAPLAN)</li> </ul>					
	<ul> <li>monitoring and reporting Education State targets, learning, development, engagement and wellbeing outcomes for all Victorian students.</li> </ul>						
Our audit objective	To determine whether the Department of Education is improving literacy and numeracy achievement outcomes for all Victorian government school students.						
What we	We examined:						
examined	<ul> <li>whether the department understands all domains of literacy and numeracy achievement outcomes for Victorian government school students</li> </ul>						
	outcomes for	rtment defines, monitors and reports literacy and numeracy achievement Victorian government school students. This includes assessing whether the literacy and numeracy align with the Victorian Curriculum					
	<ul> <li>whether achievement outcomes have improved for all Victorian government student subgroups across all domains of literacy and numeracy.</li> </ul>						

### Conducting this audit

Assessing To form our conclusion against our objective we used the following lines of inquiry and associated evaluation criteria.

	Line of inquiry	Criteria						
	<ol> <li>Does the department understand the literacy and numeracy outcomes for all Victorian government school students?</li> </ol>	1.1	The department has defined literacy and numeracy outcomes that include all domains of literacy and numeracy as per the Victorian Curriculum.					
		1.2	The department's monitoring and reporting allows it to understand and report literacy and numeracy outcomes for all students.					
	2. Has the department improved the literacy and numeracy achievement outcomes for all Victorian government school students?	2.1	Achievement outcomes have improved for all Victorian government school student subgroups across all domains of literacy and numeracy.					
Our methods	As part of the audit we:							
	<ul> <li>performed multi-level modelling to model government school students' learning (from year 3 to year 9) for various subgroups in each NAPLAN domain</li> </ul>							
	<ul> <li>performed similar modelling on teacher judgement scores.</li> </ul>							
	We did these analyses using data supplied by the department and ACARA.							
	Refer to Appendix E: Modelling of student outcomes for details.							
Compliance	We conducted our audit in accordance with the <i>Audit Act 1994</i> and ASAE 3500 <i>Performance Engagements</i> to obtain reasonable assurance to provide a basis for our conclusion.							
	We complied with the independence and other relevant ethical requirements related to assurance engagements.							
Cost and time	The full cost of the audit and preparation of this report was \$290,000.							
	The duration of the audit was 7 months from initiation to tabling.							

## Appendix D: Audit context

The Australian education system uses NAPLAN as nationwide standardised testing to understand student achievement in literacy and numeracy.

All levels of government recognise the impact of socioeconomic disadvantage on student achievement. They use equity funding to help schools give these students the additional support they need.

#### NAPLAN reporting

Changes to<br/>NAPLAN in 2023From 2023, ACARA moved to assessing and reporting student achievement against NAPLAN<br/>scales and proficiency standards. These replace the former achievement bands and national<br/>minimum standards.

The 4 proficiency standards are:

- Exceeding
- Strong
- Developing
- Needs additional support.

This means that NAPLAN results from 2023 onwards cannot be directly compared to the 2008–22 results.

How ACARAACARA reports NAPLAN results through the annual National Report on Schooling in Australia on<br/>behalf of the Australian education ministers.resultsImage: Construction of the Australian education ministers.

The report shows achievement data by state, for each year level and learning domain. It provides the ability to compare achievement between different student subgroups including:

- Aboriginal and Torres Strait Islander students
- students by locality
- students by EAL status
- student family background.

For the years from 2008 to 2022, the report shows the percentage of students at the different band levels and national minimum standards.

From 2023, the reporting shows the percentage of students at each proficiency standard (a new system for measuring NAPLAN results).

Outcomes for Victorian students below expected levels in literacy and numeracy is lower compared to most other states and territories. For example, Figure D1 shows this comparison in reading for the period 2012 to 2022, for all students in government and non-government schools.

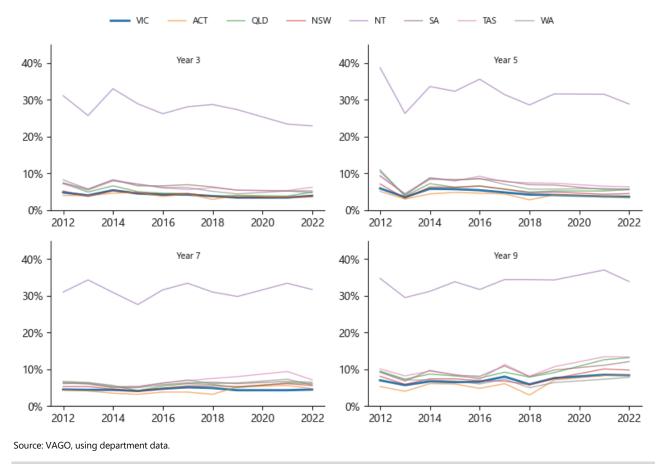


Figure D1: State and territory comparison of percentage of all students below expected level in reading, 2012–22.

#### Funding arrangements to reduce the impact of disadvantage

student achievement in literacy and numeracy

Factors affecting Australian and international studies confirm that a range of social factors affect students' attainment in literacy and numeracy. The Australian literature (Lamb 2004, Productivity Commission 2014) recognises that social and demographic factors play a strong role on educational attainment. These factors include:

- socioeconomic status
- gender •
- Indigenous status
- region
- ethnicity.

A study by Lamb et al. (2020) found that the impact of these factors was particularly significant for students from low socioeconomic backgrounds and Indigenous students.

The study examined whether Australia's education and training systems are achieving the goals set out in the 2019 Alice Springs (Mparntwe) Education Declaration.

According to the goals set out in the Education Declaration, every learner in Australia, irrespective of where they live or who they are, will develop the knowledge, skills and attributes that will lead them to become personally successful, economically productive and actively engaged citizens.

Figure D2 shows the gap between high and low-socioeconomic status students in achieving these goals, based on national data.

Education Declaration goal	High socioeconomic status (%)	Low socioeconomic status (%)
Developmentally on track on all development domains	85.3	67.7
Developmentally on track in literacy and numeracy	90.9	74.3
Performing above the national minimum standard in both literacy and numeracy	91.3	50.6
Performing at or above the international benchmark in science	85.0	43.0
Attains a year 12 certificate or equivalent	91.8	66.8
Meets or exceeds international benchmark standard for age in mathematics, science and reading	86.2	48.6
Engaged fully in education, training or work	82.0	50.8
Gains post-school qualification	86.3	52.9
	Developmentally on track on all development domainsDevelopmentally on track in literacy and numeracyPerforming above the national minimum standard in both literacy and numeracyPerforming at or above the international benchmark in scienceAttains a year 12 certificate or equivalentMeets or exceeds international benchmark standard for age in mathematics, science and readingEngaged fully in education, training or work	Education Declaration goalsocioeconomic status (%)Developmentally on track on all development domains85.3 domainsDevelopmentally on track in literacy and numeracy90.9Performing above the national minimum standard in both literacy and numeracy91.3Performing at or above the international benchmark in science85.0Attains a year 12 certificate or equivalent91.8Meets or exceeds international benchmark standard for age in mathematics, science and reading86.2Engaged fully in education, training or work82.0

Figure D2: Achievement of Education Declaration goals by socioeconomic status (national), 2020

Source: Lamb S, Huo S, Walstab A, Wade A, Maire Q, Doecke E, Jackson J & Endekov Z (2020). *Educational opportunity in Australia 2020: Who succeeds and who misses out.* Centre for International Research on Education Systems, Victoria University, for the Mitchell Institute: Melbourne.

Government funding recognises the support needed for student	The Australian Government, and the states and territories, share funding responsibilities for school education.					
	Current funding arrangements at both levels of government aim to reduce the impact of disadvantage and other factors on student achievement.					
subgroups	Governments do this with extra funding for certain categories of students based on demographic characteristics.					
	The Australian Government does this through the National Schooling Resource Standard and Victoria does this primarily through the Student Resource Package.					
Victoria's spending for government	The Victorian Government has increased its funding per government school student from \$10,388 in 2015 to \$15,405 in 2021, an increase of 33.7 per cent . This also reflects its commitments in the current National School Reform Agreement.					
students	Additional funding is provided for students from lower levels of socio-educational advantage.					
	Using the Index of Community Socio-educational Advantage, the funding allocated to each social advantage level has increased. Students in the lowest quarter of socio-educational advantage received an average of \$21,478 in 2021 compared to \$15,426 in 2015.					
	The data reported here draws from ACARA's expenditure-based dataset based on a calendar year.					
	These figures are not comparable to the department's public reporting, which uses the National Schools Statistics Collection finance data.					

Student Resource Package student-based equity funding The Student Resource Package is the primary mechanism the department uses to distribute state and federal funds to government schools.

This package entails several types of funding. Most school funding comes through student-based funding, which reflects core student learning needs and equity requirements.

It provides an additional loading for students who may require it. This loading is determined by different types of equity funding including (but not limited to):

- social disadvantage
- students with disabilities
- EAL students.

## Levels of disadvantage

The department measured student's level of social disadvantage by calculating their Student Family Occupation and Education level. Figure D3 shows the student family education and occupation groupings and the weightings for each element.

## Figure D3: The department's definition of levels of student disadvantage

Index	Grouping	Weighting
Student	Not stated/unknown	0.00
Family Education	Bachelor degree or above	0.00
	Advanced diploma/diploma	0.40
	Certificate I to IV	0.50
	Year 12 or equivalent	0.40
	Year 11 or equivalent	0.70
	Year 10 or equivalent	0.90
	Year 9 or equivalent or below	1.00
Student Family	A: Senior management in large business organisation, government administration and defence, and qualified professionals	0.00
Occupation	B: Other business managers, arts/media/sports persons and associate professionals	0.25
	C: Tradespeople, skilled office, sales and service staff	0.50
	D: Machine operators, hospitality staff, assistants, labourers and related workers	0.75
	N: Unemployed and pensioners	1.00
Source: Departme	ent of Education, Policy and Advisory Library, 2023.	

# Appendix E: Modelling of student outcomes

We performed multi-level modelling to model students' learning (from year 3 to year 9) for various subgroups (Aboriginal, EAL, disadvantage) in each NAPLAN domain. The purpose of this analysis is to understand the rate of learning and how these vary by subgroup.

Similar modelling was performed on teacher judgement scores as a comparison. The results from both models are mostly consistent.

Analysis in this report is primarily based on NAPLAN due to some limitations in teacher judgement data and clear representation of the analysis.

#### NAPLAN

#### Dataset

Ignoring repeats, each student takes up to 4 NAPLAN tests for each domain, which correspond to tests taken in years 3, 5, 7 and 9.

We based our analysis on the groups of students denoted with coloured cells in the table below. To estimate learning, we made sure that each student in the 2012, 2013 and 2015 reference cohorts had 4 data points, while students in all other reference cohorts had 3 data points.

#### Figure E1: Illustration of student groups with 4 data points of NAPLAN test results

Reference cohort	2010	2011	2012	2013	2014	2015	2016	2017
Year 3	2010	2011	2012	2013	2014	2015	2016	2017
Year 5	2012	2013	2014	2015	2016	2017	2018	2019
Year 7	2014	2015	2016	2017	2018	2019	2020	2021
Year 9 Source: VAGO.	2016	2017	2018	2019	2020	2021	2022	2023

#### Data quality

Students self-report their demographic information. It is natural for some demographic information to change, such as EAL status or disadvantage level.

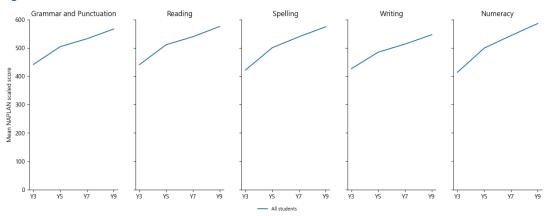
We observed a large proportion of students who were recorded as both Aboriginal and non-Aboriginal throughout their education. VAGO treated any student as Aboriginal if they were recorded as Aboriginal at any time.

#### Model details

We ran both random intercepts and random slopes multi-level models using the nlme package in R for NAPLAN scores where the levels are students in a particular year level and school.

Based on the following chart, NAPLAN scaled scores do not appear to grow strictly linearly. We tested various functional forms as described in the sensitivity analysis section and chose the model in Figure E2.





Source: VAGO, using department data.

We created a CENTRED\_YEAR\_LEVEL variable to model 2-year improvement in NAPLAN scores. This aligns with the 2-year NAPLAN cycle. CENTRED\_YEAR\_LEVEL maps YEAR\_LEVEL values 3, 5, 7, 9 to 0, 1, 2, 3 respectively.

The coding for the SUBGROUP categorical variable is shown in Figure E3.

#### Figure E3: Coding for the SUBGROUP categorical variable

The subgroup of level corresponds to	0	1	2
Aboriginal	Non-Aboriginal	Aboriginal	N/A
EAL	Non-EAL	EAL	N/A
Disadvantage level	Non-disadvantaged	Disadvantage level 2	Disadvantage level 1

Source: VAGO.

To explain student learning rate, we used a random slopes regression of NAPLAN score on subgroup, centred year level and an interaction term.

Limitations	Since we only considered NAPLAN data from 2012 to 2022, and NAPLAN did not run in 2020, only reference cohorts 2012, 2013 and 2015 have 4 test results per student.				
	We did not consider school-level effects in the model.				
Sensitivity analysis	To account for the unbalanced dataset, we tested both random intercepts and random slopes models for the full dataset, as well as for the 2012, 2013 and 2015 reference cohorts only.				
	We also ran the models for each reference cohort individually. Results from all models were mostly consistent with each other.				
	We also performed sensitivity analysis for the functional form of the growth trajectory. Results suggested the linearity assumption is suitable and conclusions were consistent across the models with different functional forms.				

Analysis and charts in this report are taken from the random intercepts model for the unbalanced dataset including reference cohorts 2010 to 2017. The random intercepts and random slopes model produced similar results. We chose the random intercepts model as it allows for fairer comparison with the teacher judgement analysis.

#### **Teacher judgement**

Dataset

We used semester 2 teacher judgement scores recorded between 2017 and 2022 to model the learning rate of students from year F to year 10.

We did not consider semester one scores because they were missing in 2020. We also did not consider teacher judgement scores prior to 2017 because the curriculum changed.

We joined the teacher judgement dataset with the August census dataset to include students' demographic information.

Our analysis is based on the groups of students in the coloured cells in the table below.

Figure E4: Illustration of student groups with teacher judgement scores between 2017 and 2022

Reference cohort	2012	2013	2014	2015	2016	2017	2018
Year F	2012	2013	2014	2015	2016	2017	2018
Year 1	2013	2014	2015	2016	2017	2018	2019
Year 2	2014	2015	2016	2017	2018	2019	2020
Year 3	2015	2016	2017	2018	2019	2020	2021
Year 4	2016	2017	2018	2019	2020	2021	2022
Year 5	2017	2018	2019	2020	2021	2022	
Year 6	2018	2019	2020	2021	2022		
Year 7	2019	2020	2021	2022			
Year 8	2020	2021	2022				
Year 9	2021	2022					
Year 10	2022						

Source: VAGO.

We performed the same preprocessing steps in the NAPLAN analysis to the teacher judgement analysis. We also removed part-time students and students who repeated grades from the analysis.

#### Limitations

Since we analysed 6 years of teacher judgement data between 2017 to 2022, we cannot observe an individual student's learning for the 11-year period from year F to year 10.

While the dataset used is mostly balanced for each reference cohort (there are 5 or 6 observations per cohort), it is unbalanced for each year level.

For example, there are 6 observations for students in years 4 and 5, but only one observation for students in year 10.

## SensitivitySince there appears to be little variation across students in teacher judgement learning trajectories,<br/>we only used random intercepts models for the 7 reference cohorts of students coloured above.

To account for the unbalanced dataset, we also ran the models for each reference cohort individually. Results from models were mostly consistent with each other.

# Auditor-General's reports tabled during 2023–24

Report title	Tabled
Cybersecurity: Cloud Computing Products (2023–24: 1)	August 2023
Responses to Performance Engagement Recommendations: Annual Status Update 2023 (2023–24: 2)	August 2023
Eloque: the Joint Venture Between DoT and Xerox (2023–24: 3)	October 2023
Domestic Building Oversight Part 1: Regulation (2023–24: 4)	November 2023
Employee Health and Wellbeing in Victorian Public Hospitals (2023–24: 5)	November 2023
Reducing the Illegal Disposal of Asbestos (2023–24: 6)	November 2023
Auditor-General's Report on the Annual Financial Report of the State of Victoria: 2022–23 (2023–24: 7)	November 2023
Contractors and Consultants in the Victorian Public Service: Spending (2023–24: 8)	November 2023
Major Projects Performance Reporting 2023 (2023–24: 9)	November 2023
Fair Presentation of Service Delivery Performance 2023 (2023–24: 10)	November 2023
Reducing the Harm Caused by Drugs on Victorian Roads (2023–24: 11)	December 2023
Results of 2022–23 Audits: Local Government (2023–24: 12)	March 2024
Withdrawal from 2026 Commonwealth Games (2023–24: 13)	March 2024
Follow-up of Management of the Student Resource Package (2023–24: 14)	May 2024
Literacy and Numeracy Achievement Outcomes for Victorian Students (2023–24: 15)	May 2024

All reports are available for download in PDF and HTML format on our website at https://www.audit.vic.gov.au

# Our role and contact details

The Auditor- General's role	For information about the Auditor-General's role and VAGO's work, please see our online fact sheet <u>About VAGO</u> .
Our assurance services	Our online fact sheet <u>Our assurance services</u> details the nature and levels of assurance that we provide to Parliament and public sector agencies through our work program.
Contact details	Victorian Auditor-General's Office Level 31, 35 Collins Street Melbourne Vic 3000 AUSTRALIA
	Phone +61 3 8601 7000 Email <u>enquiries@audit.vic.gov.au</u>