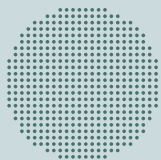


Raising the grade: How schools in the Australian Capital Territory can lift literacy outcomes for students and the economy





About us

This report was written by Jessica Del Rio, Hassan Noura, Dr Kristy Jones and Aalya Sukkarieh at Equity Economics.

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EQUITY ECONOMICS

About Equity Economics

Equity Economics is a leading consulting firm, providing analysis, policy development, design and evaluation services to government, private sector, and non-government clients.

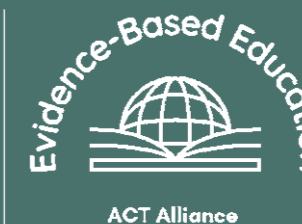
We specialise in economic and social policy, and international development. We combine technical economic skills with policy and design expertise, helping our clients contribute to a more inclusive, equitable society. Our work addresses the persistent challenge of social and economic disadvantage, through new and practical solutions. We are committed, and in for the long haul.



About The Snow Foundation

The Snow Foundation creates opportunities and strengthens resilience for a more caring and inclusive community.

The Snow Foundation was established by George and Terry Snow in 1991 to benefit disadvantaged communities in Canberra to help the individuals and organisations whose needs were not covered by government assistance. Whilst the Canberra region is still their main place, the Foundation has significantly expanded its reach across Australia through four pillars that guide their giving: Our Place, Our Country, Our Sector and Our Family. With a focus on minority, vulnerable and neglected groups, and a strong commitment to social justice and social entrepreneurs, their approach is to raise awareness, meet basic needs, and contribute to systemic change. The Foundation takes an evidence-based approach to support programs that make a difference.



About the ACT Alliance for Evidence-based Education

The ACT Alliance for Evidence-based Education is a group of concerned teachers, academics, speech pathologists, researchers and parents who have come together to work with the ACT Government to improve the educational outcomes of students in ACT schools.

Acknowledgement of Country

Equity Economics acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country throughout Australia and their continuing connection to both their land and seas. We also pay our respects to Elders – past, present, and emerging – and generations of Aboriginal and Torres Strait Islander peoples now and into the future.

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Contents

| | |
|---|----|
| ABOUT US | 2 |
| EXECUTIVE SUMMARY & RECOMMENDATIONS | 6 |
| Executive Summary | 7 |
| Too many students in the ACT are falling below literacy benchmarks | 7 |
| Inequity is a problem in the ACT | 7 |
| Rapid improvement is possible | 7 |
| Five steps to lift literacy and equity outcomes | 8 |
| The long-term payoffs are worth the costs | 10 |
| Recommendations | 11 |
| CHAPTER 1: TOO MANY STUDENTS IN THE ACT ARE FALLING BELOW BENCHMARKS | 12 |
| A significant proportion of students in the ACT are falling below PISA benchmarks | 13 |
| Literacy levels today are worse than 20 years ago | 13 |
| NAPLAN outcomes worsen as students move through school | 16 |
| Struggling readers come from a variety of backgrounds | 16 |
| The ACT's performance relative to the rest of Australia is unclear | 16 |
| CHAPTER 2: EQUITY IS A PROBLEM IN ACT SCHOOLS | 18 |
| The gap between advantaged and disadvantaged students | 19 |
| Disparities in NAPLAN achievement for equity groups | 19 |
| CHAPTER 3: FIVE STEPS TO DELIVER A READING COMMITMENT | 22 |
| The right to read | 23 |
| Five steps to implement a reading commitment | 23 |
| CHAPTER 4: STEP ONE – CURRICULUM BASED ON THE FIVE KEY SKILLS FOR READING | 24 |
| Five key skills for reading | 25 |
| The three-cueing system is not supported by strong evidence | 26 |
| Implementing the Australian Curriculum | 26 |
| ACT Schools deliver “Balanced Literacy” | 27 |
| ACT schools need decodable readers | 27 |
| Lessons for the ACT | 29 |
| CHAPTER 5: STEP TWO – PROFESSIONAL DEVELOPMENT FOR PRINCIPALS AND TEACHERS | 30 |
| What's the difference between explicit instruction and inquiry-based learning? | 31 |
| How do teachers teach in ACT classrooms? | 32 |
| Lessons for the ACT | 32 |

| | |
|---|----|
| CHAPTER 6: STEP THREE – PROGRESS MONITORING TO SUPPORT INTERVENTION | 34 |
| Reviews of ACT Government schools have consistently found shortcomings in their use of data | 35 |
| Who is accountable for educational outcomes in ACT Government schools? | 35 |
| Age-normed screening | 36 |
| How do schools in the ACT identify children at risk of not reaching grade-level literacy standards? | 36 |
| Lessons for the ACT | 38 |
| CHAPTER 7: STEP FOUR – SYSTEMATIC APPROACH TO INTERVENTION | 40 |
| Response to intervention | 41 |
| Reports on best practice for intervention | 43 |
| Lessons for the ACT | 43 |
| CHAPTER 8: STEP 5 – TERTIARY PROGRAMS | 44 |
| The importance of quality Initial Teacher Education | 45 |
| Lessons for the ACT | 45 |
| Establishment of a reading clinic | 46 |
| CHAPTER 9: RAPID IMPROVEMENT IS POSSIBLE | 48 |
| South Australia's literacy guarantee | 49 |
| ACT Catholic Schools have significantly improved performance | 51 |
| CHAPTER 10: A BLUEPRINT FOR REFORM IN THE ACT AND ACROSS AUSTRALIA | 56 |
| Learning from South Australia and ACT Catholic schools | 57 |
| Addressing the Matthew Effect | 59 |
| CHAPTER 11: THE FISCAL AND ECONOMIC COSTS OF ENSURING STUDENTS IN THE ACT BECOME PROFICIENT READERS | 60 |
| Matching investment made by other sectors and jurisdictions | 61 |
| The return on investment is high | 61 |
| APPENDIX A: EVIDENCE-BASED EDUCATION IN THE ACT: HIGH RETURN ON INVESTMENT – METHODOLOGY | 62 |
| Methodology | 63 |
| ENDNOTES | 64 |

Executive Summary & Recommendations



EXECUTIVE SUMMARY

Literacy matters. The ability to read proficiently is fundamental to a person's success at school and in later life. It contributes to whether they will get a job, their income, and their physical and mental health.

Too many students in the ACT are falling below literacy benchmarks

Too many students in the Australian Capital Territory (ACT) aren't proficient readers. One in three 15-year-old students in the ACT is below the Australian proficient standard for reading in the Programme for International Student Assessment (PISA). The ACT's performance in PISA has been in long-term decline over the past 20 years, so that the typical ACT student today performs worse - about six months behind - similar students two decades ago.

Results in the National Assessment Program – Literacy and Numeracy (NAPLAN) also show too many students are struggling. Almost one in five Year 9 students in the ACT are at or below NAPLAN National Minimum Standards for reading, which means they are operating at a Year 6 level. And the proportion of students at or below minimum standards doubles between Year 3 and Year 9 as they move through school.

Many struggling readers are “instructional casualties” – students who could and should have become proficient readers but who did not receive appropriate instruction.

The situation in the ACT is not unique. We know too many students across Australia struggle to become proficient readers. There is a need to lift literacy outcomes for students in the ACT and across the country.

Inequity is a problem in the ACT

The ACT education system is one of the most inequitable in Australia, with the ACT having the worst relationship between socio economic status and performance of all jurisdictions except the Northern Territory (NT), in PISA assessments.

Disadvantaged students in the ACT are also falling behind in NAPLAN. The gap between disadvantaged and advantaged students in the ACT is about 1.5 years in Year 3 and increases to four years by Year 9. Priority equity cohorts such as students whose parents did not complete high school and First Nations students perform significantly worse than their peers.

Rapid improvement is possible

Two Australian case studies suggest change is possible. Government schools in South Australia and Catholic schools in the Canberra region have both lifted performance following the introduction of high-quality research-based literacy instruction measures in schools.

The key elements of the programs for reform across these two systems are: a high-quality curriculum; universal screening to identify students at risk of falling behind in reading and data to lift performance for all students; and professional development for teachers.

In 2018, the South Australian Government made a commitment that all children in Government schools would become literate. The South Australian Government was the first jurisdiction in Australia to introduce the Year 1 Phonics Check, which is a tool that allows teachers to identify students who are struggling to sound out words. Since the commencement of measures to achieve this literacy guarantee all data, including Year 1 Phonics Check results, indicate the reforms have had a highly effective impact on student literacy skills. In 2018, only 43 per cent of Year 1 students met the Phonics Check benchmark. By 2022, this number had increased to 68 per cent of all students with improvements seen across all equity groups.

In 2019, prior to the introduction of the Catholic education reform program, Catholic and Government schools in Canberra were underperforming compared to similar students in the rest of the country. While Catholic schools have lifted the performance of Year 3 students over the past four years, Government schools have not achieved the same levels of improvement. In 2019, 42 per cent of Catholic schools and 54 per cent of Government schools were underperforming in reading. Four years later, only four per cent of Catholic schools underperformed compared to 60 per cent of Government schools. There have been similar improvements in writing and spelling for Catholic schools in the ACT but not for Government schools. There shouldn't be any reason for Catholic schools to be outperforming government schools.

The lessons from these education reform processes are not only relevant to Government schools in the ACT, but to schools all across Australia and in comparator countries such as New Zealand, Canada, and the United States.

“As a teacher, I just don't have the resources I need to teach children how to read.”

– primary school teacher

“Currently there are no consistent assessments to tell families (or staff) what is happening with students...”

– primary school teacher

“Children get missed if there aren't safeguards to catch them in the form of universal tests to identify children with poor decoding abilities.”

– Dean of Education, University of Canberra

Five steps to lift literacy and equity outcomes

The ACT Government must do more to ensure all ACT schools are following evidence-based practice to teach children how to read. The ACT Government can ensure all students have the opportunity to become proficient readers by giving them access to high-quality literacy instruction in every school with five essential steps.

Step 1: a high-quality, low-variance curriculum

Step 2: professional development for principals and teachers

Step 3: effective progress monitoring to support intervention

Step 4: a systematic approach to intervention for struggling readers

Step 5: high-quality Initial Teacher Education at universities

“Having worked across multiple schools, I can confirm there's absolutely no consistency to intervention.”

– speech pathologist

“Below-average equity in education really encapsulates what teachers see every day in the classroom...The kids whose parents can afford tutors catch up, while the kids from less privileged backgrounds fall further and further behind.”

– primary school teacher

Step 1: A high-quality, low-variance curriculum

What does this look like: Teach children to sound out words, rather than to guess them.

In 2022, the Australian Curriculum was updated to remove the three-cueing system as it is not effective for teaching all children how to read. The cueing method involves using guessing strategies to identify unknown words such as looking at the picture, looking at the first letter and asking what makes sense. The Australian Curriculum now requires all schools to teach children how to sound out words. This represents a significant change in curriculum and in the books beginner readers require. While the ACT will adopt the new curriculum in 2024, to date, no additional funding has been provided for implementation. An investment is required in high-quality curriculum materials for teachers and students, including decodable books for beginner readers that teach them to sound out words.

Step 2: Professional development for principals and teachers

What does this look like: Training and coaching for principals and teachers to change the way children are taught to read.

Anecdotally, it appears that teachers are not receiving appropriate professional development in the knowledge and skills required for teaching children how to read. It is important that all Kindergarten, Year 1, and Year 2 teachers in the ACT have the opportunity to receive professional training in effective teaching practices and the necessary skills for reading. Principals should also be provided with professional development to lead the change management process within their schools that is required to implement the Australian Curriculum.

Step 3: Effective progress monitoring to support intervention

What does this look like: Urgently implement the Year 1 Phonics check to find those children who are having difficulty learning to read and other age-normed screening tools.

All schools need good progress monitoring and early interventions to prevent students from falling behind. The ACT is one of the last jurisdictions in Australia to announce support for a Year 1 Phonics Check. The ACT should match the investments made by other jurisdictions and introduce the Year 1 Phonics Check as well as investigating other age-normed screening tools suitable for application in early primary school and into high school.

Step 4: A systematic approach to intervention for struggling readers

What does this look like: Provide small group tutoring and one-on-one support for students who are falling behind, so they can catch up to their peers.

International best practice requires a strategic and systematic approach to interventions for struggling readers. Anecdotal evidence suggests a lack of consistency in the approach to intervention and inadequate training for staff delivering intervention support across the ACT. The evidence suggests that with consistent use of effective instruction for the whole class and evidence-based intervention for struggling readers, 95 per cent of students could meet academic benchmarks.

Step 5: High-quality Initial Teacher Education at universities

What does this look like: Only train pre-service teachers in high-quality research-based literacy instruction.

Many Initial Teacher Education graduates across Australia are leaving university underprepared to teach children how to read. Initial Teacher Education often provides pre-service teachers with instruction in evidence-based literacy instruction, but also instructs them in methodologies that are not informed by reading science. Initial Teacher Education curriculum is changing, but not fast enough. Universities should ensure teaching qualifications only teach evidence-based practice.

The long-term payoffs are worth the costs

The economic benefits of systematically investing in the implementation of evidence-based literacy instruction are huge. Investing \$11 million in 2023–24 in an evidence-based education reform package will lead to students in the ACT earning an additional \$198 million over their lifetimes – about 18 times the cost of the package.

Access to a high-quality public education should be a guaranteed right that every child in Canberra enjoys, regardless of their socioeconomic status, race, ethnicity or postcode. The strength of Canberra's public schools is directly bound to the Territory's social, civic, and economic strength. Canberra's economy demands a well-educated workforce and reading proficiency is the key to this.

Professor Rauno Parrila, Director, Australian Centre for the Advancement of Literacy, Australian Catholic University

“Based solely on publicly available data, Equity Economics’ report paints an all-too-common picture of an education system trapped in old practices. While this report focuses on the ACT, it could very well be written about many other jurisdictions in Australia, New Zealand, Canada, or the USA. The old literacy education practices have always been driven more by philosophical persuasion than by research evidence on how children learn and how best to teach them. They have never been optimal for children's learning outcomes or for reducing inequity in educational outcomes, as is evident from years of decline in students’ performance in various international and national large-scale assessments and the stubbornly high number of children who fail to develop functional literacy skills despite the best efforts of their teachers. It is time that educational leaders and policy makers take a hard look at the numbers and commit to an Australia where every student receives high-quality research-based literacy instruction and develops the literacy skills they need to pursue their dreams. The recommendations this report makes to the ACT Education Directorate would go a long way to achieving this goal, and they deserve careful consideration by all Education decision makers. We can all do better.”

RECOMMENDATIONS

The ACT Government must take immediate steps to ensure that all schools are adequately resourced and supported to provide evidence-based literacy instruction to their students. This report outlines three recommendations to achieve this:

1. Provide a commitment to ACT students, parents, and the community that students in ACT Government schools will become proficient readers. Adopt targets to reduce the proportion of students who do not meet basic levels of literacy proficiency in Years 3, 5, 7 and 9.
2. Invest in an evidence-based literacy reform package with an initial investment of \$11 million in 2023–24 including:
 - a. \$2.2 million for low-variance, high-quality curriculum for students in Kindergarten, Year 1 and Year 2 which covers the key skills required for reading: phonemic awareness; phonics; fluency; vocabulary; and comprehension – underpinned by strong oral language;
 - b. \$0.5 million for decodable readers to support beginner readers in Kindergarten and Year 1;
 - c. \$1.7 million to support teachers with Kindergarten, Year 1, and Year 2 classes to deliver high-impact teaching through professional development and to support principals in leading change management processes in their schools;
 - d. \$0.8 million to mandate the Year 1 Phonics Check; and
 - e. \$5.6 million to provide small group intervention to support students requiring additional support in all grades from Kindergarten to Year 12.
3. The ACT Government should partner with local universities to ensure Initial Teacher Education provides comprehensive and consistent training in evidence-based literacy instructional practices. In addition, a reading clinic should be established at a local university campus.

Chapter 1: Too many students in the ACT are falling below benchmarks



KEY POINTS

- Thirty per cent of 15-year-old students in the ACT fall below the Australian proficiency benchmark for reading in PISA testing. Literacy levels in the ACT have fallen over the past 20 years. The percentage of low performers has increased while the percentage of high performers has decreased.
- In 2022, one in five Year 9 students in the ACT were at or below the NAPLAN National Minimum Standard for reading which means they were operating at a Year 6 level.
- The situation in the ACT is not unique and there is a need to improve literacy outcomes in the ACT as well as across Australia.
- Many struggling readers are 'instructional casualties' – students who could and should have become proficient readers but who did not receive appropriate instruction.

A significant proportion of students in the ACT are falling below PISA benchmarks

PISA is an international assessment of 15-year-olds' ability to apply their knowledge and skills to real-life problems and situations, focusing on reading, mathematics, and science. It has been administered every three years since 2000, with the 2021 test delayed until 2022.¹ The 2022 PISA results are not currently available.

A measure of the performance of an education system is the share of students who do not meet year-level expectations. In 2018, 30 per cent of students in the ACT did not meet the Australian proficiency standard for reading in PISA. While this is lower than the national average (41 per cent) it is still a very high figure.

Literacy levels today are worse than 20 years ago

The ACT and Australia's national performance in reading literacy measured through PISA declined between 2000 and 2018.

The percentage of students below the PISA reading proficiency standard is increasing over time at both a national level and in the ACT (See Figure 1.1). In 2000, over one in five students (23 per cent) in the ACT were below standard. By 2018 this had increased to one in three (30 per cent).

Between PISA 2015 and 2018, the ACT was the only jurisdiction to show a short-term change in performance with a significant increase in mean reading literacy scores. While this is positive, the ACT's performance remains well below where it was in 2000 (See Figure 1.2). The ACT's performance in reading literacy has been in long-term decline, equivalent to around half a year of lost schooling.

The percentage of low performers in the ACT has increased from eight per cent in 2000 to 13 per cent in 2018, and the percentage of high performers has decreased from 25 per cent in 2000 to only 21 per cent in 2018 (See Figure 1.3, Figure 1.4).

The ACT's worsening trends over time are also seen in national data.

Figure 1.1: Proportion of students (%) below the National Proficient Standard on reading literacy PISA cycle 2000-2018

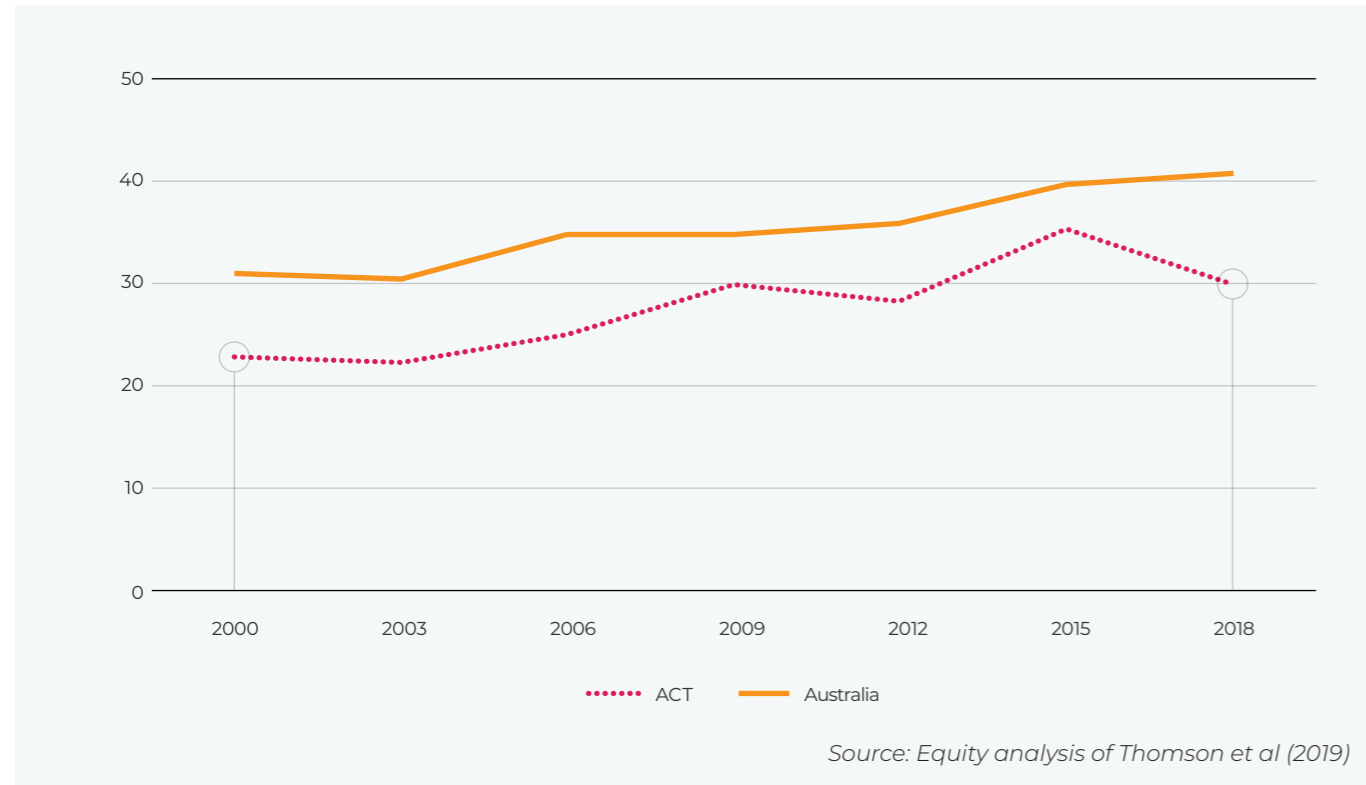


Figure 1.2: Mean reading literacy scores PISA cycle 2000-2018

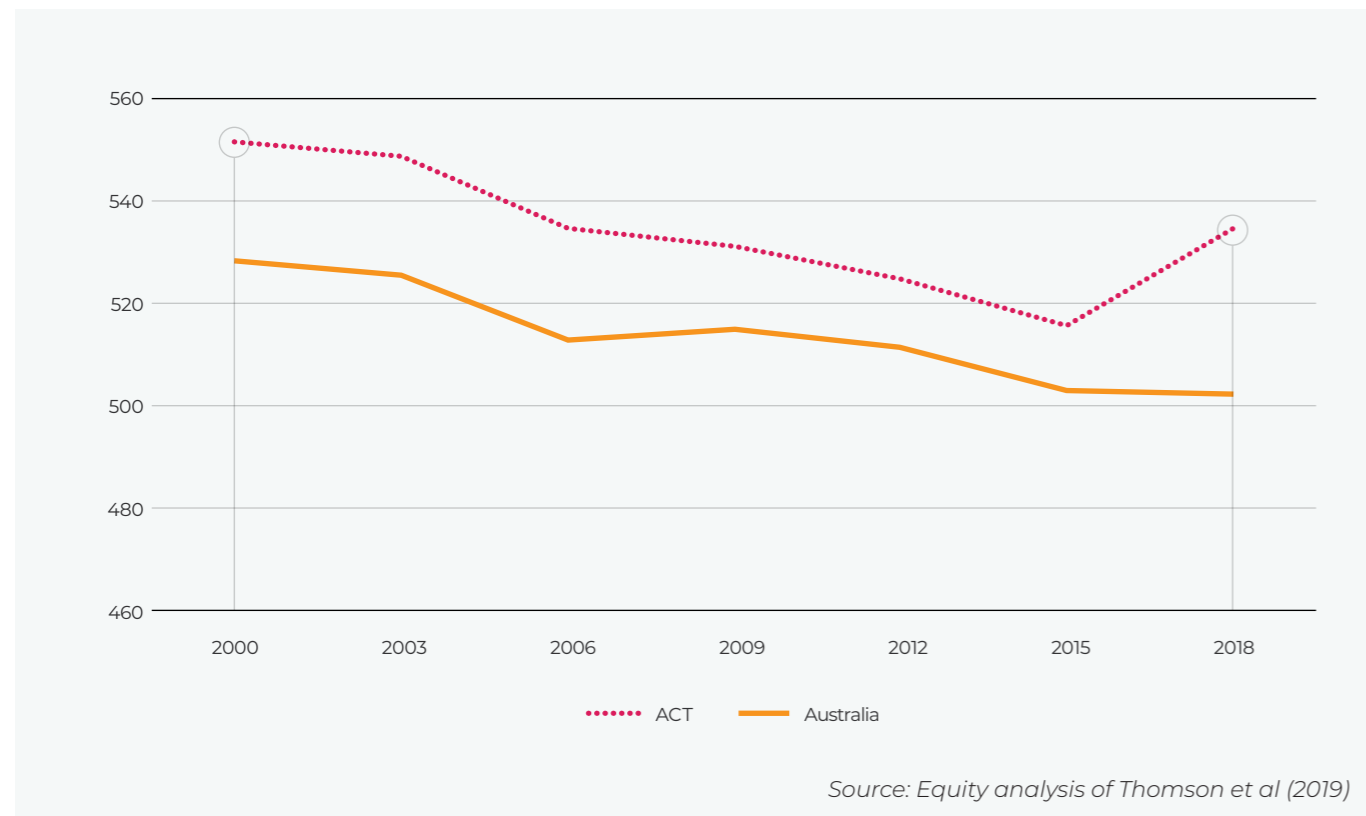


Figure 1.3: Low Performers in Reading (% students) PISA cycle 2000-2018

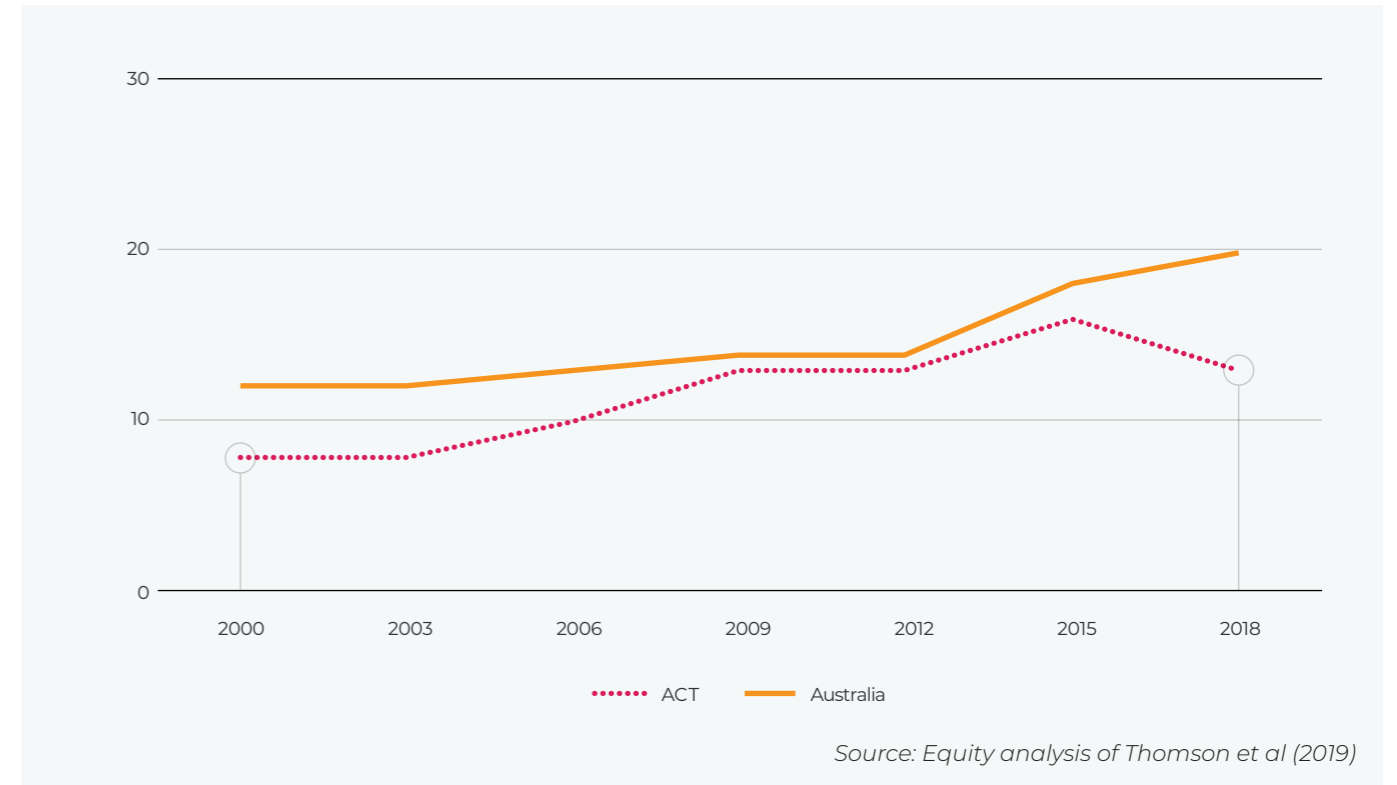
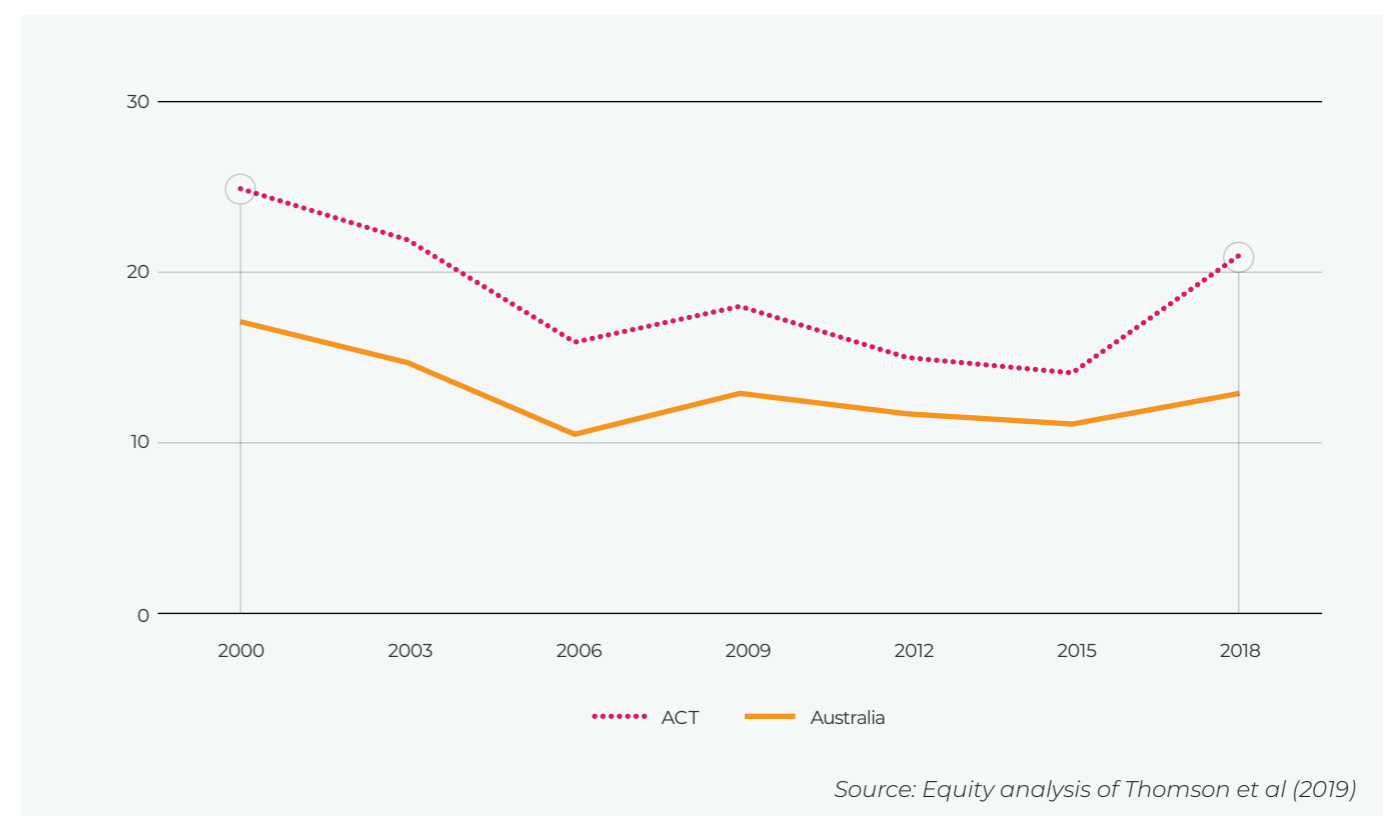


Figure 1.4: High Performers in Reading (% students) PISA cycle 2000-2018



NAPLAN outcomes worsen as students move through school

A significant number of students in the ACT are also falling below national benchmarks measured through NAPLAN. In 2022, 19 per cent of Year 9 students in the ACT were at or below the NAPLAN Minimum Standards for reading which means that they were operating three or more years below their peers across Australia, at a Year 6 level.²

While the ACT's result of 19 per cent is below the national average of 23.5 per cent, the ACT still has just under one in five students in every ACT classroom who risk being unable to progress satisfactorily at school without targeted intervention. This figure is conservative as NAPLAN National Minimum Standards are set very low.³

The number of students with low reading proficiency in the ACT increases – rather than decreases – as students move through school.

- The number of students who were at or below the National Minimum Benchmark in reading in 2022 more than doubles between Year 3 and Year 9, going from nine per cent to 19 per cent.
- In real terms, this means around 550 Year 3 students and over 1,000 Year 9 students in the ACT were at or below the National Minimum Standard.

These results are reflective of national trends.

Struggling readers come from a variety of backgrounds

While students from equity cohorts are three times more likely to be represented among students who have fallen behind National Minimum Standards, not all students who struggle with reading are from a priority equity cohort.³

The Productivity Commission's inquiry into the National School Reform Agreement found that, at a national level, the majority of students in Australia with poor literacy are not in a designated priority equity cohort (educationally disadvantaged, Aboriginal and Torres Strait Islander, or from a regional, rural or remote area).

This finding points to most struggling readers being instructional casualties – students who could and should have become proficient readers but who did not receive appropriate instruction.⁴

The ACT's performance relative to the rest of Australia is unclear

According to national and international comparisons of student performance, schools in the ACT often rank at the top in mathematics, science and reading. However, once socio-educational factors are taken into account there is a more mixed picture of the performance of students in the ACT compared to similar schools and students in the rest of the country.

Reports from the ACT Auditor-General,⁵ Australian National University⁶ and Victoria University⁷ all found that once ACT schools are compared on a like-for-like basis with schools in other jurisdictions, on average, students in the ACT have lower performance in NAPLAN than comparable schools in the rest of the country.

The Grattan Institute found that students in the ACT make less growth in NAPLAN results from year to year than students in the rest of the country and that results are deteriorating over time.⁸

Analysis undertaken by Equity Economics for this report indicates schools in the ACT are underperforming in NAPLAN compared to statistically similar students in the rest of the country, particularly in high school. In 2022, there was only one public high school in the ACT that was not below average in reading in Year 7 compared to the rest of the country.⁹

However, international testing results from PISA show that the ACT's results are still higher than most other jurisdictions once an adjustment is made for economic, social, and cultural status.¹⁰

One explanation of the difference between the ACT's results in NAPLAN and PISA once socio-economic factors are taken into account is that the two tests measure different aspects of learning. They are both standardised assessments used to evaluate student performance but they differ in their scope and purpose. NAPLAN focuses on foundational skills in literacy and numeracy, which are essential for other areas of learning and daily life.¹¹ PISA measures 15-year-olds' ability to apply their knowledge and skills to real-world situations and challenges, including reading, mathematics and science.¹²

The ACT Government has questioned whether there might be a flaw in the statistical modelling used to support comparisons of NAPLAN performance but there is insufficient publicly available information to interrogate this. In 2019, the ACT Standing Committee on Education, Employment and Youth Affairs recommended the Minister for Education explore whether the Index of Community Socio-Educational Advantage used in NAPLAN accurately reflects disadvantage, especially in smaller jurisdictions.¹³ This review was finalised in October 2021. However, the report has not yet been publicly released.^b

The question of whether schools in the ACT can be compared to similar students in the rest of the country requires significantly more public accountability, attention and debate.

a It is worth focusing on Year 9 results as this is the last year for which NAPLAN data is available before students can exit the school education system.

b Equity Economics sought access to the report through a Freedom of Information request, which was denied.

Chapter 2: Equity is a problem in ACT schools



KEY POINTS

- The gap between disadvantaged and advantaged students in the ACT is about one and a half years in Year 3 and about four years in Year 9 (NAPLAN).
- Results are significantly worse for First Nations students and students from less educationally advantaged backgrounds.
- The ACT education system is one of the most inequitable in Australia, with the ACT having the worst relationship between socioeconomic status and performance of all jurisdictions other than the NT (PISA).

The gap between advantaged and disadvantaged students

Analysis of 2022 NAPLAN data by the Grattan Institute reveals that there is a notable disparity in academic performance between advantaged and disadvantaged children in Year 3, which intensifies into a significant gap by the time they reach Year 9. The gap between disadvantaged and advantaged students in the ACT is about one and a half years in Year 3 and about four years in Year 9.¹⁴

Children who are considered disadvantaged, whose parents have lower levels of education, typically commence their education far behind their more advantaged peers and the gap continues to widen throughout their schooling. No matter what their level of advantage, children who fall behind tend to have trouble catching up.

Disparities in NAPLAN achievement for equity groups

Table 1: ACT 2022 NAPLAN results in reading - percentage of student population at or below National Minimum Standards

| | All students | First Nations students | Parental education: Year 11 |
|--------|--------------|------------------------|-----------------------------|
| Year 3 | 9% | 27% | 36% |
| Year 5 | 8% | 22% | 32% |
| Year 7 | 13% | 30% | 42% |
| Year 9 | 19% | 41% | 48% |

Source: Equity Economics analysis of ACARA (2023)

In the ACT, 41 per cent of First Nations students were at or below National Minimum Standards for reading in Year 9 in 2022, which is more than double the Territory average for the entire student cohort (see Table 1).¹⁵

In 2022, the average reading results for a First Nations student in the ACT in Year 9 were around three years behind their peers and equivalent to the results expected from students in Year 6.

In the context of presenting the percentage of Year 10 Aboriginal and Torres Strait Islander students who proceed to public secondary college education, the ACT Education Directorate's Annual Report cautions against reading too much into the results because of the small number of First Nations students in the ACT noting: "the small number of students in the Aboriginal and Torres Strait Islander cohort results in large percentage variances from a change in circumstances for a very small number of students and therefore must be interpreted with this in mind".¹⁶

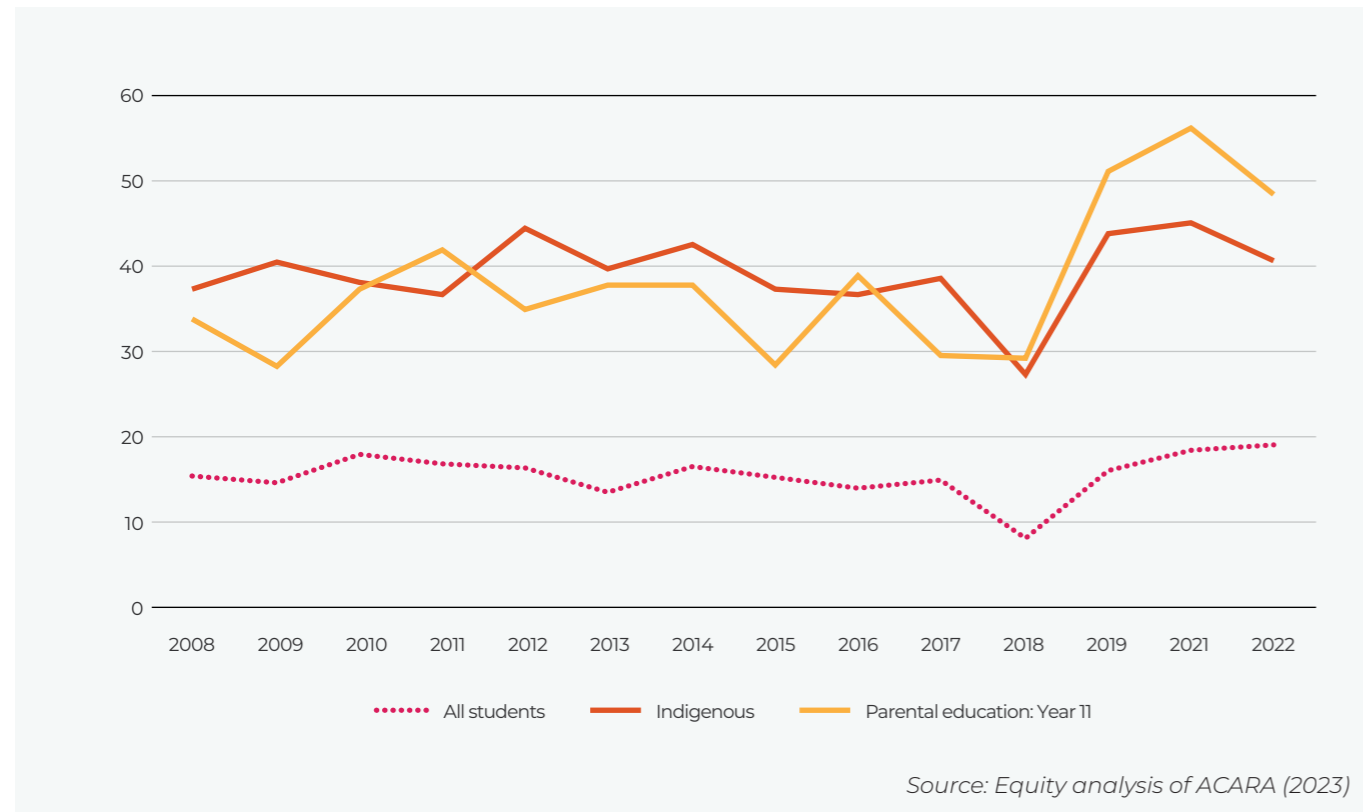
It is true that First Nations students make up a small cohort in NAPLAN tests, but analysis by Equity Economics reveals that results for these students have been consistently low over the past 14 years with around 40 per cent of First Nations students at or below the National Minimum Standard in reading in the period between 2008 and 2022 (See Figure 2). The fact that there is a small First Nations student population should make it easier for ACT schools to support these students to achieve their potential, including by providing effective intervention where necessary.

Outcomes are also worse for students whose parents are less educated. Equity Economics examined the results for students whose parents had completed Year 11 only. In 2022, around half of this group of students (48%) were at or below the National Minimum Standard for reading in Year 9. In 2022, the mean reading results for students in this group were around 3.5 years behind their peers and equivalent to the results expected from students at the end of Year 5. Again, this group is a very small cohort, which could be easily targeted and supported.

NAPLAN results are not available for children with a disability, which the Productivity Commission has identified as a reform area for the next National School Reform Agreement.¹⁷

A current primary school teacher from an ACT school told Equity Economics, "Below-average equity in education really encapsulates what teachers see every day in the classroom...The kids whose parents can afford tutors catch up, while the kids from less privileged backgrounds fall further and further behind."

Figure 2: Average percentage of Year 9 students in the ACT at or below the NAPLAN National Minimum Standard in Reading 2008–2022

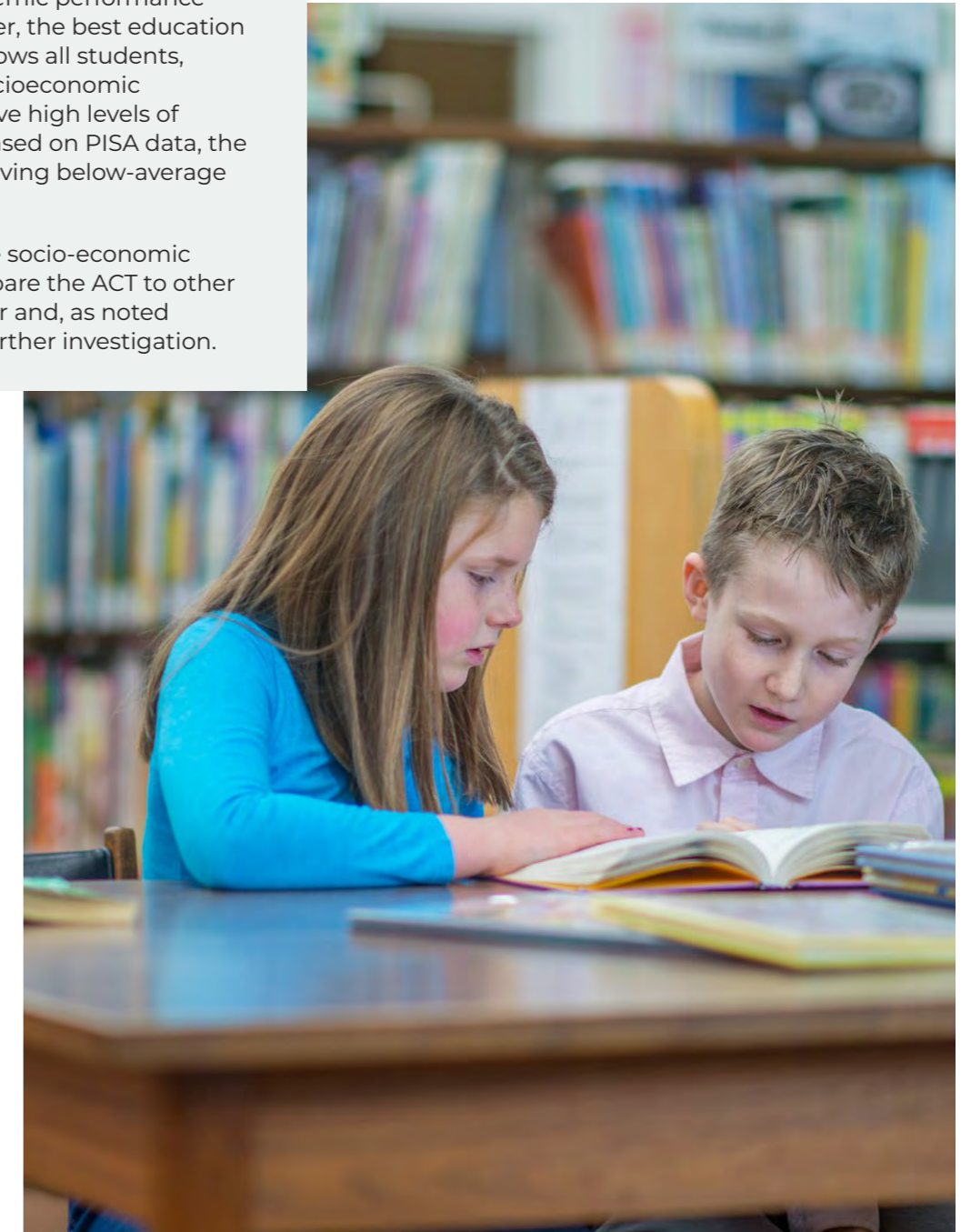


Box 1: Below average equity in education

The strength of the relationship between socioeconomic background and performance in reading literacy is a key proxy for equity in the PISA assessment.¹⁸ Based on PISA data, the ACT and the Northern Territory have the most inequitable education systems in Australia.

The degree to which countries and states can moderate the impact of socioeconomic background on academic performance varies greatly. However, the best education system is one that allows all students, regardless of their socioeconomic background, to achieve high levels of academic success. Based on PISA data, the ACT is classified as having below-average equity in education.

The robustness of the socio-economic metrics used to compare the ACT to other jurisdictions is unclear and, as noted previously, warrant further investigation.



Chapter 3: Five steps to deliver a reading commitment



KEY POINTS

- The ACT Government should provide a commitment that students in ACT schools will become proficient readers.
- There are five steps to achieve this commitment.

The right to read

It is not acceptable that after thousands of hours of school level education, a significant proportion of students in the ACT leave school without becoming proficient readers and that the most disadvantaged students are overrepresented in this group. Almost all children can be taught to read at a level constrained only by their reading and listening comprehension abilities.¹⁹

The Productivity Commission has recommended that all States and Territories should adopt targets for reducing the proportion of students who do not meet basic levels of literacy and numeracy as it would elevate the issue, signal a strong commitment to delivering equitable education for all students and promote accountability.²⁰

Creating the equity needed to assist struggling readers and dismantle the predictability of achievement by socio-economic status requires the establishment of clear accountability and measurement targets by the ACT Government.

The ACT Government should provide a commitment to ACT students, parents and the community that students in ACT Government schools will become proficient readers. This should be supported by targets to reduce the proportion of students who do not meet basic levels of literacy proficiency in Years 3, 5, 7 and 9.

Under the ACT Human Rights Act (2004) every child in the ACT has the right to a free school education appropriate to his or her needs.²¹

Five steps to implement a reading commitment

To deliver on this commitment, the ACT Government must ensure the implementation of five essential steps:

1. a high-quality, low-variance curriculum;
2. professional development for principals and teachers;
3. progress monitoring to support early intervention;
4. a systematic approach to intervention; and
5. high-quality Initial Teacher Education at universities.

Chapter 4: Step One – Curriculum based on the five key skills for reading



KEY POINTS

- The ACT Government should support teachers by implementing a high-quality, low-variance curriculum to reduce teacher workload and improve teaching quality.
- Last year, a new version of the Australian Curriculum was released that requires all schools in Australia to cease teaching students to guess unknown words through the three-cueing system and to instead teach children about letter sound relationships.
- The three-cueing system is popular in schools across Australia, including in the ACT. This method encourages guessing words instead of using decoding skills and can be detrimental to students' reading development, especially for those who struggle with reading.
- Implementation of the Australian Curriculum requires proper support, resources, and funding.

Five key skills for reading

In December 2019, all Australian Governments agreed to create the Australian Education Research Organisation (AERO) to improve learning outcomes for children through effective use of evidence.²² According to AERO, multidisciplinary knowledge from education, linguistics, cognitive psychology and neuroscience have identified core

evidence-based practices and skills for literacy instruction.²³ The five key skills for reading are: phonemic awareness; phonics; fluency; vocabulary; and comprehension. These skills are underpinned by oral language.

Box 2: AERO: key components to reading

The five keys to reading

Five specific sub-skills are essential to the acquisition of word recognition and language comprehension. These sub-skills are phonemic awareness, phonics, fluency, vocabulary and comprehension. These skills are underpinned by oral language.

- Phonemic awareness is the ability to recognise and manipulate individual speech sounds.
- Phonics involves understanding the associations between letters and sounds.
- Fluency pertains to the capacity to read accurately, quickly, and expressively.
- Vocabulary encompasses the meaning or meanings of words.
- Comprehension involves the ability to derive and create meaning from written text.

Oral language development

Oral language development in the preschool years is the essential foundation of reading development. Oral language development comprises children's ability to use vocabulary and grammatically correct sentences when they speak, as well as understanding what others are communicating. Children exposed to more complex oral language will arrive at school with a wider vocabulary and more comprehensive ability than those who have not been so exposed.

The three-cueing system is not supported by strong evidence

AERO has noted that, in Australia, many approaches to teaching and assessing reading are not supported by strong evidence. An example of this is the multi-cueing or three-cueing method, which is often used in a balanced literacy approach to teach novice readers to recognise unfamiliar words through association with context or cues in the text.

The three-cueing approach to reading is a way of teaching children to read that focuses on three types of cues: the meaning of the words, the grammar and structure of the sentence, and the individual sounds and letters in the words.²⁴ Schools that use the three-cueing approach provide children who are learning to read with predictable readers with spelling patterns that may not have been taught to the child and which require them to use clues (including pictures) to guess unknown words.

This approach has been used in many schools for decades, but it is not effective for helping all children learn to read. The problem with the three cueing approach is that it encourages children to guess words, instead of using their knowledge of the sounds and letters in the words.

The evidence suggests the three cueing systems approach is not effective with weak and at-risk readers and it may be counterproductive with such students.²⁵ Despite this, the three-cueing system is still widely in use. Dr Reid Lyon uses the term “instructional casualties” for the group of students who have difficulties learning primarily because of poor instruction.²⁶

Implementing the Australian Curriculum

The Australian Curriculum sets the expectations for what all students in Australia should be taught. All states and territories, including the ACT, have agreed to implement the Australian Curriculum. Version 9 of the Australian Curriculum was released in 2022.

ACARA, the Australian Curriculum, Assessment and Reporting Authority, has been very clear that Version 9 of the Curriculum focuses “early reading on phonic knowledge” and has “removed references to ‘predictable texts’ and the ‘three-cueing

system’.”²⁷ ACARA has also made it very clear that schools will use decodable readers for students who are learning to read rather than predictable texts that are traditionally used with the three-cueing system.

Currently, schools in the ACT follow version 8.4 of the Australian Curriculum. The ACT Education Directorate has confirmed that these schools will move to Version 9 of the Curriculum from Semester 1, 2024.²⁸ However, no additional funding was announced in the most recent ACT Budget for implementation of the changes to the curriculum.

The changes represent a major shift in the way children will be taught to read and cannot be easily implemented by individual schools without centralised support and resourcing. Experience from the United States shows that unfunded implementation undermines effectiveness.

More than two dozen States in the US have passed legislation since 2019 requiring schools to use reading methods aligned with research and in some cases banning teaching methods such as the three-cueing system.²⁹ However, lawmakers have been criticised for leaving details about professional development up to individual school districts, which has led to variations in how much teachers are paid for attending training sessions and whether the training is on or off the clock. This has caused concern among teachers’ unions, who point out that it is unrealistic to expect teachers to become experts in the new methods with only a few sessions of training. In addition to training, leaders need time to create new instructional plans, money for new curriculum materials, and systems in place for professional development for teachers. However, these provisions have not always been included in the legislation.

Some union officials in the US argue that banning certain teaching practices undermines teachers’ professional expertise and autonomy. The counter argument from legislators and researchers is that teachers’ autonomy should not be prioritised over children’s learning outcomes.

ACT Schools deliver “Balanced Literacy”

There is a dearth of public information showing how schools in the ACT teach children how to read, or how ready ACT schools are to implement the Australian Curriculum.

According to the Education Directorate, ACT schools follow a “balanced literacy” approach to instruction, including an emphasis on phonics.³⁰ It is difficult to understand what this means in practice as the ACT Education Directorate website and individual school websites do not clearly explain the approaches used to teach students how to read. The term “balanced literacy” can mean different practices, in different combinations. However, there are several common balanced literacy practices including the use of three-cueing and levelled texts. In depending primarily on three-cueing to teach reading, a balanced literacy approach relies on a reader’s experiences and context to understand the text. Students also often participate in teacher-guided reading of levelled texts that are not controlled for spelling patterns. Instead, they are levelled according to background knowledge and sentence complexity. Balanced literacy approaches can also include some phonics, although it is often not taught in an explicit, systematic and sequential way.

The Dean of Education at the University of Canberra told Equity Economics that “the use of the cueing approach to literacy instruction is problematic if it clouds teachers’ ability to identify students with low phonemic ability and if it is used without a systematic structured phonics program. Children get left behind when phonics is taught only in context without also being the focus of systematic and explicit instruction and there is no assessment undertaken to identify children who can’t sound out words and rely on guessing strategies”.

One current ACT primary school teacher told Equity Economics, “There are a lot of well-meaning but ultimately devastating decisions being made by schools in the ACT which simply don’t align with what the science on reading says around how children learn to read. As a teacher, I just don’t have the resources I need to teach children how to read. The ACT is hardcore balanced literacy territory, but there are some brave schools trying hard. I’m lucky, my principal is making big changes and all the executive is on board. I can’t say the same about all the teachers. Still, I’m hopeful.”

ACT schools need decodable readers

In order to properly implement the new Curriculum, the ACT would need to purchase decodable readers for Kindergarten and Year 1 classes to align with the phonics sequences being taught. At the moment, many ACT Kindergarten students are taught to read with predictable

readers. They repeat common phrases, such as “Where is the cat? Where is the boy? Where is the bed?” to help children memorise words and use pictures to help children identify unfamiliar words. These cueing strategies have been proven to be inefficient and ineffective.

Decodable readers are books that only use the letter-sound combinations students have already learned in class. For example, after learning the *s/a/t/i/p/n* sounds, students should be able to read a book about a character called Stan who taps a tin.

Dr Buckingham OAM is the founder of the Five from Five project which provides evidence-based information on effective reading instruction. Dr Buckingham has observed that many schools continue to use readers they have acquired over the past forty years.³¹ She acknowledges that it may be difficult for schools to let go of this investment but emphasises it’s not wise to continue using outdated materials simply because they were expensive in the past. Dr Buckingham likens this to using old medicine, saying that we don’t continue using it just because it cost a lot of money.

Box 3: NSW Government investment in decodable readers

Other jurisdictions such as New South Wales have invested significant funds to support schools in purchasing decodable texts.³² The new readers were chosen through a centralised procurement process to negotiate the lowest price. At the time, the then Education Minister stated “this \$4.3 million investment is one of the largest deployments of new reading material to classrooms in the state’s history... These high-quality readers will enrich our curriculum and ensure Government schools have the appropriate resources to support our youngest students to develop strong phonic knowledge and apply this as they begin to learn to read”. The purchase of decodable readers coincided with a new emphasis on phonics in NSW education, which also included a compulsory Year 1 Phonics Check across the Government school system and a new Kindergarten to Year 2 literacy syllabus to be used by all schools which explicitly includes the teaching of the essential components of reading (phonemic awareness, phonics, fluency, vocabulary and comprehension underpinned by oral language).

The ACT Education Minister has previously indicated that decodable readers are not preferred in ACT schools.³³ In 2019 the ACT Education Minister, in response to a petition concerning support for students with learning difficulties, stated: “While the ‘Decodable Readers’ associated with some phonics commercial programs may form a small part of a school’s library of reading resources, they should not be the main resource presented to children to support their reading development and the ACT Education Directorate does not support mandating decodable readers.”

Equity Economics was informed by a current teacher from an ACT primary school that “I got ‘talks’ from the former leadership at my school for printing decodables and using the free Year 1 Phonics Check. It’s nonsense that ACT schools are free to use them. With certain leaders, one would be iced out.”

Another teacher said to Equity Economics, “I was told by a former principal that the school would not be purchasing decodables (I had asked for about nine months) and that I was not to purchase them either.”

While a small number of schools have managed to implement changes towards evidence-based practices with the support of their school leadership, it will not be possible to implement the system-wide transformation required without centralised support, resources and investment from the ACT Government.

Lessons for the ACT

The workload of teachers in the ACT is already high. The Australian Education Union – ACT Branch conducted a survey in 2021 and found:

- almost all teachers report working unpaid overtime every week; and
- more than 40 per cent of teachers work an average of two days of unpaid overtime every week.³⁴

To reduce teacher workload and support effective teaching, Equity Economics suggests the ACT Government invest in high-quality, low-variance curriculum materials. The government could also explore a partnership between the Government, Catholic and Independent sectors with shared investment in curriculum materials.

Effective teaching in the classroom heavily relies on high-quality curriculum planning outside of the classroom.³⁵ However, this can be challenging as the Australian Curriculum only provides general direction, leaving a significant gap for teachers to fill. Governments have not recognised the importance of subject-matter knowledge, curriculum expertise and time required to bring the curriculum to life in the classroom. Without a coordinated, whole-school and system approach to planning teachers will struggle to provide the best education to their students.

A 2022 Grattan Institute survey of 2,243 teachers and school leaders shows that a whole-school approach to curriculum planning is not common in Australia. Half of the teachers plan on their own and only 15 per cent have access to a common bank of high-quality curriculum materials for all their classes. Teachers in disadvantaged schools have less access to a common bank than teachers in advantaged schools. Having access to a shared bank of high-quality curriculum materials for all subjects makes a significant difference. Teachers are more likely to report consistent learning by students in different classrooms, a shared understanding of effective teaching with colleagues and greater satisfaction with their school’s planning approach. The workload benefits are also significant – teachers can spend three hours less each week sourcing and creating materials. A shared bank of materials would not need to reduce teacher autonomy; the materials would free up more time for teachers to exercise their professional judgement on complex issues such as tailoring approaches for different student needs.

Chapter 5: Step two – professional development for principals and teachers



KEY POINTS

- Professional development should be provided to teachers and principals on high-impact teaching practices, particularly explicit instruction and the skills required for reading.
- Professional development of the foundational skills required for literacy has received insufficient attention in ACT Government schools.
- A significant investment has been made in professional development for teachers and principals in Catholic schools in the Canberra region with positive results.

What's the difference between explicit instruction and inquiry-based learning?

Investing in high-impact teaching practices for literacy instruction based on cognitive science is crucial because it can greatly improve students' ability to retain and apply the information they learn. When teachers use teaching practices that are based on how the brain retains information, they are able to help students develop stronger neural pathways that support long-term learning and retention.

Teacher instruction can be broadly considered to follow two main methodologies: student centred (inquiry-based learning) and content centred (explicit instruction).³⁶ The main difference between inquiry-based and explicit instruction is the focus of the teaching. In an inquiry-based approach, the emphasis is on meeting the individual needs and interests of each student while, in an explicit instruction approach, the emphasis is on teaching a predetermined, specific body of knowledge and skills.

Proponents of inquiry-based approaches argue they lead to deeper thinking, while proponents of more explicit teaching argue that it leads to stronger learning outcomes for developing readers. While inquiry-based learning can be valuable in promoting curiosity and critical thinking skills, it may not provide students with the explicit guidance and structure needed to develop strong foundational literacy skills.

Explicit instruction involves breaking down the material that students need to learn into smaller learning objectives and modelling each step so that students can understand what they need to do.³⁷ Explicit instruction makes it easier for students to learn because it is consistent with how the brain processes, stores and retrieves information. Learning can be challenging and ineffective when students are presented with more information than their memory can handle, leading to cognitive overload. Breaking down the material into manageable parts helps students learn by preventing cognitive overload and enabling them to transfer information from working memory to long-term memory. AERO conducted a review of over 328 studies to determine the effectiveness of explicit instruction in different contexts, which found that it positively impacts student achievement in mathematics, reading, spelling, problem-solving and science for primary and secondary students, including for those with additional learning needs.

There is debate about where to find the sweet spot between inquiry-based learning and explicit instruction. Some studies on students' performance in science found that students achieved the best results when the two styles were used together. However, other studies (on performance of older students in science) have found little evidence that inquiry-based instruction is ever positively associated with students' academic achievement.³⁸

The weight of evidence on reading instruction favours explicit teaching using a scope and sequence (referring to the scope of what is to be taught, and the sequence in which it will be taught).³⁹

How do teachers teach in ACT classrooms?

There is limited public data available on the teaching practices used in Australian classrooms, but it is likely that there is insufficient focus on explicit instruction for teaching core literacy and numeracy skills, including in the ACT.⁴⁰

Professor Andrew Macintosh from the Australian National University suggests there may be resistance towards explicit instruction in the ACT for three reasons: the high average NAPLAN results reduce interest in alternative teaching methods; explicit instruction may be perceived as ill-suited to the ACT's relatively advantaged student population; and the smaller, more insular nature of the ACT's education system may limit support among researchers, officials and practitioners.

Despite these obstacles, Macintosh notes there are indications that interest in explicit instruction programs is growing, particularly for students experiencing reading difficulties. Some ACT Government schools have begun using explicit instruction reading programs. However, it is unclear whether explicit instruction methods more broadly are gaining ground in ACT Government schools, nor whether teachers have access to the training they require for explicit instruction in literacy in the foundational years.

Lessons for the ACT

Professional development should be provided to teachers and principals on high-impact teaching practices, particularly explicit instruction and the skills required for reading.

Effective professional development for teachers requires a focus on specific curriculum content, providing strategies directly relevant to the subjects they teach. It should incorporate active learning, allowing teachers to design and experiment with teaching strategies themselves, similar to how they want their students to learn. Collaboration is essential, creating spaces for teachers to share ideas and work together in their learning, leading to positive changes in the culture and instruction of their educational community. Models of effective practice should be provided, giving teachers clear examples of best practices in curriculum and instruction. Coaching and expert support tailored to individual needs should be available, along with

opportunities for feedback and reflection. The duration of professional development should be sustained, allowing sufficient time for teachers to learn, practice, implement and reflect on new strategies. These components for professional development are based on a comprehensive analysis of 35 methodologically rigorous studies that examined the relationship between teacher professional development, teaching practices and student outcomes.⁴¹

There has been a significant investment made in professional development for principals and teachers in Catholic schools in the Canberra region. The initial focus was on providing professional development for school principals to empower them to lead the change management process within their schools. Following this initial stage, teachers have received significant professional development including:

- online units on high impact practices and the shared terminology required to understand the science of learning;
- theory and practice units providing foundational research and knowledge; and
- professional coaching that supports teachers to embed high impact practice in the classroom.⁴²

This professional learning supports teachers to understand research-based principles of instruction for classroom practice and draws on Barak Rosenshine's 10 "Principles of Instruction".⁴³ Rosenshine has put together these 10 principles based on: research in cognitive science; research on the classroom practices of master teachers; and research on cognitive supports to help students learn complex tasks. The 10 practices are:

1. Begin a lesson with a short review of previous learning.
2. Present new material in small steps with student practice after each step.
3. Ask many questions and check the responses of all students.
4. Provide models.
5. Guide student practice.
6. Check for student understanding.
7. Obtain a high success rate.
8. Provide scaffolds for difficult tasks.
9. Require and monitor independent practice.
10. Engage students in weekly and monthly review.

This appropriately resourced, system wide approach has clearly worked to improve students' literacy outcomes. It provides a clear and locally relevant model that should be adopted by the ACT Government to improve the literacy outcomes of ACT Government school students (see Chapter 9).

One academic told Equity Economics, "The ideal professional learning for teachers in Canberra would involve providing all Kindergarten to Year 2 teachers with professional learning and then having year-level teams work together with an experienced practitioner to revise and refine practice".

An ACT Auditor General's 2021 report on teaching quality in ACT public schools emphasised the crucial role of teaching practices in influencing student performance.⁴⁴ Highly effective teachers have a significant impact on student learning, and the Auditor-General stressed the need for central support for professional learning programs to support effective teaching.

Anecdotally, however, teachers in Kindergarten to Year 2 do not have access to professional learning that delivers the knowledge they require (for example in phonics and explicit instruction) as well as assistance in how to translate and apply that knowledge in the classroom.

One teacher said,

"While all ACT public primary schools argue that they use the evidence-based '10 Essential Instructional Practices in Literacy' to inform reading instruction, the professional development surrounding these practices is far from satisfactory. Teachers are expected to fill knowledge gaps by sourcing, completing and often paying for their own professional development."

Chapter 6: Step three – Progress monitoring to support intervention



KEY POINTS

- Reviews of ACT public schools have consistently identified problems with the use of student performance data.
- The Auditor-General has suggested the ACT's model of public education, which grants considerable autonomy and responsibility to schools, has led to significant variability in the use of student performance information and assessment tools, which is excessive for a small jurisdiction like the ACT.
- All schools need good progress monitoring and early interventions to prevent students from falling behind.
- The ACT Government should prioritise mandating the introduction of the Year 1 Phonics Check while also investigating other appropriate screening tools in early primary school and into high school.

Reviews of ACT Government schools have consistently found shortcomings in their use of data

In 2017 the Auditor-General for the ACT published a report titled "Performance information in ACT public schools".⁴⁵ In that report, the Auditor-General noted that reviews of ACT public schools have consistently identified problems with the use of student performance data to inform educational practice. The Auditor-General suggested these shortcomings indicate a systemic problem.

Six years after the Auditor-General's report, ACT schools are still being found deficient in their analysis and use of data. According to the most recent annual report from the ACT Education Directorate, each government school in the ACT must have a five-year plan for school improvement, which is documented in a School Improvement Plan.⁴⁶ After this five-year period, ACT Government schools undergo an external review based on the National School Improvement Tool (NSIT) created by the Australian Council of Educational Research (ACER). These reviews are conducted by accredited ACER consultants to provide an impartial analysis of school performance against the NSIT.

School reviews conducted in 2021 and 2022 found that analysis of data continued to be a weak point in the ACT school system. Key recommendations for system improvement included that schools should set challenging but achievable targets for student learning and wellbeing outcomes and prioritise professional development for teachers.

Who is accountable for educational outcomes in ACT Government schools?

The Education Act 2004 identifies school principals as having responsibility for educational outcomes at ACT Government schools and school boards as responsible for monitoring and reviewing school performance and for approving the school budget.⁴⁷

The Auditor-General has suggested that the ACT's model of public education, which grants considerable autonomy and responsibility to schools, has led to significant variability in the use of student performance information, management information systems and school-based assessment tools, which is excessive for a small jurisdiction like the ACT.⁴⁸ The Auditor-General concluded that there was a need for a better balance between school autonomy and consistency across schools in how performance information was analysed and used.

“Under the ACT model of public education considerable autonomy and responsibility is given to schools. This appears to have resulted in a high level of variability in the use of student performance information and management information systems and a wide range of school-based assessment tools used across ACT Public Schools; for a small jurisdiction such as the ACT this is excessive. A better balance between school autonomy and consistency across schools in how performance information is analysed and used is needed.”

A number of teachers and academics said to Equity Economics that the time was right to be asking questions about the current level of autonomy across government schools in the ACT. They are concerned that the current model has delivered inconsistent teaching standards and practices and a patchy approach to the collection and use of data.

Age-normed screening

The Institute of Education Sciences (IES) is an independent and non-partisan organisation under the U.S. Department of Education that provides evidence-based solutions for systemic challenges in education. The IES recommends that schools should screen all students for potential reading difficulties at the beginning and middle of the year, specifically in Kindergarten through to Year 2.⁴⁹

The screening process aims to ensure that students are acquiring the appropriate reading skills for their grade level. To accurately identify students at risk of reading difficulties, specific screening measures must be used at different stages of their reading development for example:

- assessing letter knowledge and phonemic awareness in Kindergarten;
- phonemic awareness, decoding, word identification, and text reading in Year 1; and
- word reading and passage reading in Year 2.

How do schools in the ACT identify children at risk of not reaching grade-level literacy standards?

The ACT does not currently have a standardised and evidence-based approach to screening students for early reading skills in their foundational years from Kindergarten to Year 2. School principals have the discretion to select and administer assessments to their students. ACT Government schools use a range of assessments, including BASE, running records and oral language assessments, to identify students who require differentiated instruction to learn to read, spell and write.⁵⁰

In the ACT, schools participate in NAPLAN, as do all other schools in Australia. As NAPLAN commences in Year 3, almost four years of schooling and remediation time have been lost by that point.

BASE

In ACT Government schools, children's literacy skills are assessed at the beginning and end of Kindergarten through BASE testing.⁵¹ BASE is an assessment tool designed to screen early reading, phonics, and numeracy skills of students in their first year of school. A number of teachers told Equity Economics that BASE provides a simple assessment in Kindergarten only. The assessment is not conducted in Year 1 or 2. Based on feedback from teachers, Equity Economics understands BASE does not cover the same areas as the Year 1 Phonics Check developed by the Commonwealth Government, which allows a teacher to make sure children have acquired the foundational phonics skills required for reading. While BASE may be a useful tool for Kindergarten students, it is important to recognise its limitations and supplement it with other screeners to obtain a more comprehensive picture of students' abilities.

Running records

One of the ways ACT schools assess reading proficiency is through “running records”. According to the Victorian Government, a running record is an assessment tool used to evaluate a student's reading ability in real-time.⁵² It provides a score of word reading accuracy, an analysis of errors and self-corrections made and an evaluation of reading strategies used. The level of text difficulty is determined by the number of errors and self-corrections made. The analysis considers how the reading sounded and determines comprehension levels. Running records are a cornerstone of Reading Recovery, an intervention program developed by Marie Clay.⁵³ But they're also widely used as an assessment tool. Running records form part of levelled reader programs. The record is linked to a book level placement, not to accuracy, automaticity and not to standardised age/year norms.

According to Nell Duke, a professor of literacy, language and culture at the University of Michigan School of Education, a running record is “such an open-ended tool that it's not really clear what to do with what you find”. Some teachers, Duke said, will praise a miscue as long as it makes sense in context – for instance reading the word bunny in place of rabbit. “It's definitely true that it's better that it make sense than not make sense, but it's very important that it not just make sense, but be the actual word”.

Implementation of the Year 1 Phonics Check in the ACT

The Year 1 Phonics Check is a short check that a teacher can use to confirm all children have learned phonic decoding to an age-appropriate standard. It takes less than 10 minutes to administer per child. South Australia was the first Australian jurisdiction to roll out the Year 1 Phonics Check in 2018 on a universal basis. In 2021, New South Wales also mandated the use of the Phonics Check for all Year 1 students.⁵⁴ Tasmania,⁵⁵ Victoria⁵⁶ and Western Australia⁵⁷ have also announced support for phonics screening.

The ACT Government has been very clear that it will not mandate the Year 1 Phonics Check. The responsible Minister is quoted in media as saying they are concerned by the idea as Canberra students are tested when they start school and because there is a fear the data could be used to create league tables.⁵⁸

A teacher from an ACT primary school told Equity Economics “It's so odd how the ACT say BASE is an adequate substitute for the Year 1 Phonics Check. I tried to look at BASE data last year, but it didn't tell me anything specific about what kids knew. If you're teaching reading through picture books, there's so much that is missed and not learned. In 2020, I found a bunch of Year 1s that didn't know “u” because it hadn't really been covered in their foundation year with a teacher that was a massive proponent of balanced literacy.”

Box 4: Year 1 Phonics Check: England

In 2011, a statutory phonics screening check was announced for all Year 1 students in England.⁵⁹

Students who do not meet the standard are provided with interventions and support.⁶⁰

The assessment takes less than 10 minutes per student to administer.

Specific reporting requirements keep parents informed about their child's progress, including information about screening results compared to same-aged peers in their school and nationwide. Additionally, national data is collected on the percentage of students who meet the expected phonics standard, disaggregated by equity data such as gender, income, ethnicity, special education needs, and first language other than English.

England has participated in every cycle of the Progress in International Reading Literacy Study (PIRLS) assessment since 2001.⁶¹ This is an assessment of the reading skills of 9-10 year olds. The 2016 cycle evaluated the correlation between the Year 1 Phonics Check and PIRLS performance. In 2016, England had its highest average performance across all cycles. The Year 1 Phonics Check was introduced in 2012, and the correlation is significant. Pupils who achieved full marks in the Year 1 Phonics Check had the highest average score in PIRLS 2016.

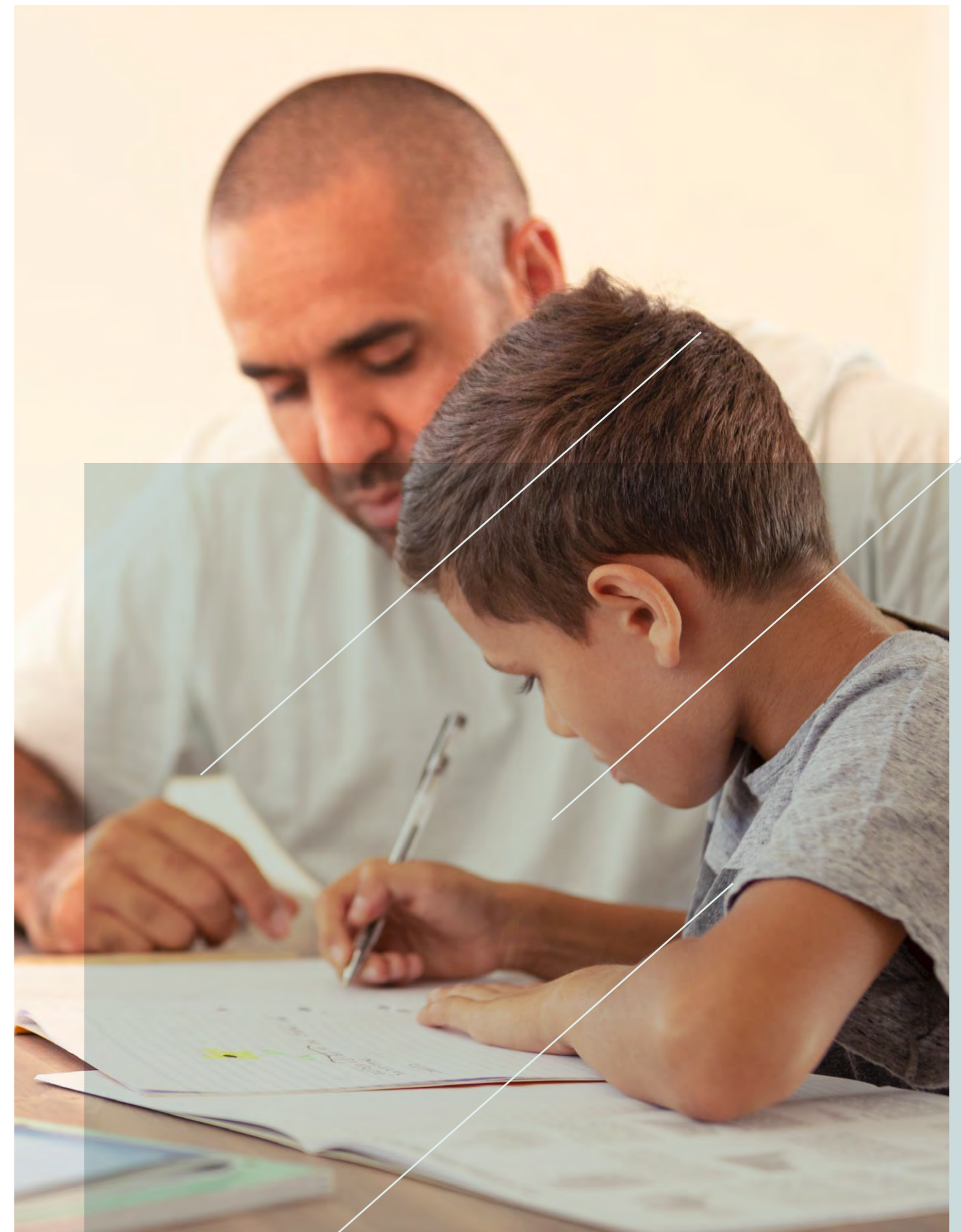
In the 2021 PIRLS assessment, England moved up to fourth place (up from eighth in 2016) out of 43 countries and overtook high-performing countries including Finland and Poland. A statement released by the UK Government said England's continued success in PIRLS "follows the focus on phonics and is driven by improvements for the least able pupils."⁶²

Lessons for the ACT

There is good practice and evidence to show that universal screening is important from Kindergarten to Year 2 to identify students who are struggling with literacy and to ensure all children are progressing over time. Research is also emerging of the importance of screening in the first year of high school to identify those students who haven't acquired foundation skills during their primary school education. The ACT Government should prioritise the introduction of the Year 1 Phonics Check while also investigating other appropriate screening tools in early primary school and into high school. The purpose of these checks is to make sure every child receives the support he or she needs to become a competent reader.

The Dean of Education at the University of Canberra told Equity Economics if he could see one change introduced across ACT schools it would be the introduction of universal screening. He said the introduction of a phonics screening instrument for Year 1 students in New South Wales has not only raised awareness among teachers about children who are getting missed, but also about the teaching practices required to bring these students up to standard. "Children get missed if there aren't safeguards to catch them in the form of universal tests to identify children with poor decoding abilities."

A Canberra based speech pathologist said to Equity Economics, "Pity those students who have high absences, learning difficulties, carers without capacity or knowledge of literacy. Currently there are no consistent assessments to tell families (or staff) what is happening with students or to track them across different schools (primary and secondary) and offer consistent remediation across contexts. Our society's most vulnerable are suffering the most. I can't tell you how many families are moving due to housing issues, disability/access, domestic violence. But those transfers mean vulnerable students' progress get lost in the system. Consistency in assessment and the sharing of information is critical to help these kids."



Chapter 7: Step four – Systematic approach to intervention



KEY POINTS

- All students in ACT schools should receive high-quality whole-of-classroom instruction and some students who need more support should receive targeted additional teaching in small groups and one-on-one.
- 95 per cent of students can meet academic benchmarks with appropriate evidence-based classroom instruction and intervention.
- Intervention programs in ACT schools lack consistency, fidelity and staffing, resulting in inadequate support for struggling students.

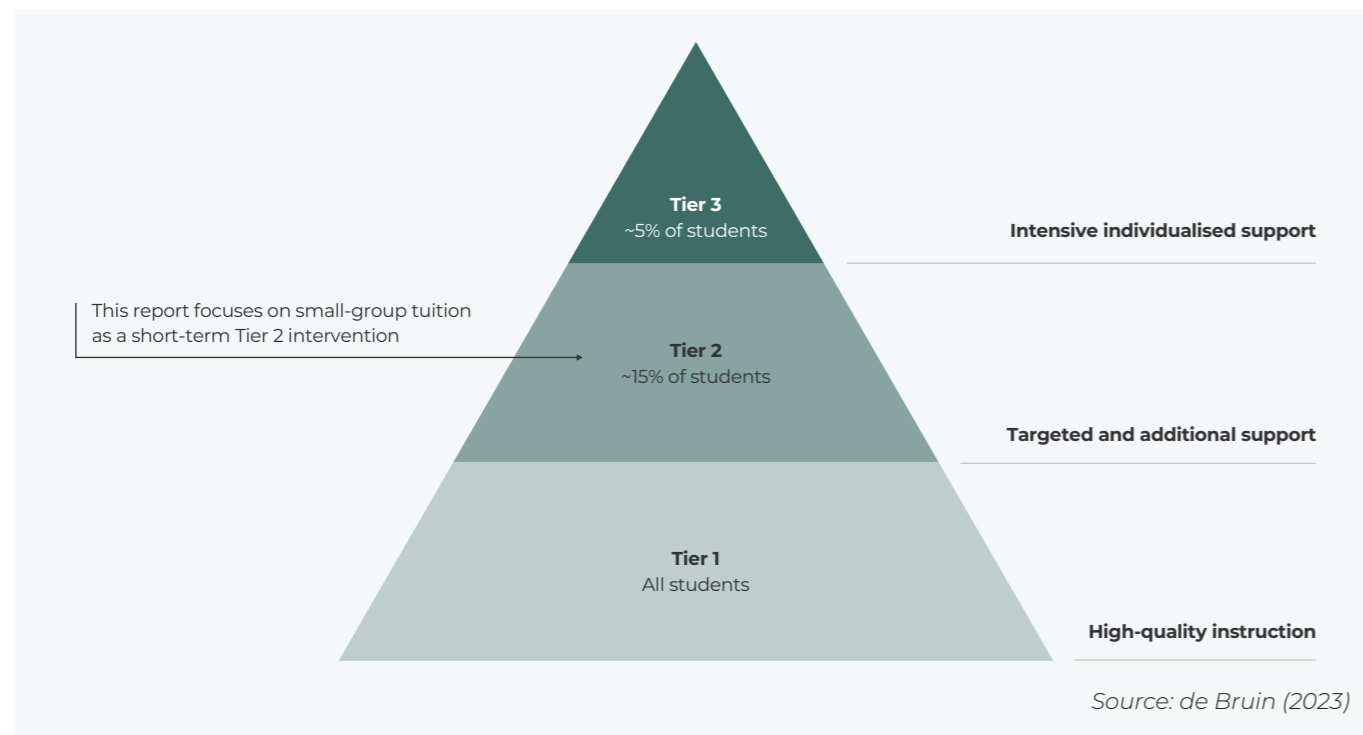
Response to intervention

When children struggle to keep up with classroom learning, it can create a negative cycle where they lack understanding, become frustrated and disengage from learning, which can hinder future learning opportunities. If teachers don't intervene quickly to help these students, even small learning gaps can grow and have devastating consequences as academic demands increase.

A systematic response to intervention model involves providing all students with excellent classroom instruction, while also offering targeted additional teaching to some students who require extra support for brief periods.⁶³ Under a response to intervention model there are three tiers of teaching support available, with the intensity increasing depending on the needs of each student (see Figure 3).

- Tier 1 involves providing high-quality instruction that meets the needs of all students.
- Tier 2 involves providing targeted and additional support, usually in small groups, to students who are at risk of falling behind (usually around 15 per cent of students).
- Tier 3 involves providing even more intensive support, often on a one-on-one basis, to students who do not respond well to Tier 2 interventions (usually around five per cent of students).

A key feature of the response to intervention model is that teachers continuously monitor their students to determine when they need more or less extra help.

Figure 3: The three tiers of support in a response to intervention model

The response to intervention model places a strong emphasis on preventing learning gaps from arising in the first place by providing high-quality universal instruction. This includes screening all students to identify any potential learning gaps early on. If a significant number of students require small-group tutoring, school leaders should investigate the quality of whole-class instruction, as well as the use of evidence-based literacy and numeracy approaches to ensure that students receive the support they need.

The evidence suggests that with consistent use of effective instruction at Tier 1, a team-based problem-solving approach to selecting evidence-based intervention and implementing these with fidelity at Tier 2, 95 per cent of students could meet academic benchmarks.^{64 c}

Box 5: Multi-tiered System of Supports

Jessica Colleu Terradas has studied international best practice for intervention through her recent Churchill Fellowship. Ms Colleu Terradas says, “The best approach is not to wait for students to struggle but to identify students at risk for reading failure and intervene early”.⁶⁵

Her report recommends that primary and secondary schools in Australia should adopt a strategic and systematic approach to the provision of interventions based on a multi-tiered system of supports (MTSS), using data-driven decision making. MTSS is a comprehensive framework that provides support to students with diverse learning needs, which also encompasses positive behaviour for learning. It is based on the premise that all students first receive high-quality classroom instruction, and a smaller proportion of students who need more support also receive targeted additional teaching “doses”.

c MTSS is the umbrella term including both academic and behaviour supports, and in this Chapter we are focussing on the academic arm (also known as a “Response-to-Intervention” model)

Reports on best practice for intervention

The Productivity Commission released a report in 2022 recommending that state and territory governments include in their bilateral agreements, actions to reduce the number of students who are below basic literacy levels.⁶⁶ One of the recommended actions is the provision of small group tuition. In 2023, the Grattan Institute recommended that all schools should have a high-quality catch-up learning support system in place.⁶⁷ The teaching and learning toolkit produced by Evidence for Learning has shown that small group tuition can improve reading outcomes by up to four months.⁶⁸

Box 6: ACT Taskforce on Students with Learning Difficulties

In 2013, the ACT Taskforce on Students with Learning Difficulties strongly advised that a consistent systemic approach to meeting the learning needs of students with learning difficulties was required across ACT schools.⁶⁹ The taskforce noted that there was no systemic strategy for individual schools and teachers to develop skills and knowledge for effective literacy intervention for students with learning difficulties. This made it difficult for parents and carers to engage in constructive partnership with schools, and it made it difficult for teachers to work collaboratively. The taskforce recommended embedding a consistent and systemic approach for students with learning difficulties.

Member of the Taskforce, Jen Cross OAM told Equity Economics “After the Taskforce I thought the ACT Government was going to provide small group explicit instruction tuition for all students who required it. But 10 years later, parents and teachers are telling me that this support is not available across all ACT public schools. This support can’t be provided on a lottery basis. Every child who requires evidence-based small group support should be able to access it in order to improve their reading skills at school”.

Lessons for the ACT

All students in the ACT should have access to high-quality classroom instruction with additional support provided to those students who require it.

Our consultations with teachers, parents and speech pathologists indicate that intervention programs in schools lack consistency, fidelity and staffing, resulting in inadequate support for struggling students, and some parents (who can afford it) having to pay for private tutoring or switch schools.

A Canberra based speech pathologist told Equity Economics, “I can confirm there’s absolutely no consistency to intervention. Some schools have small group programs, and some don’t. Some schools rely on learning support assistants and others on teachers (who aren’t necessarily trained). Some use ‘programs’ like MiniLit or Reading Recovery, but I would also say not a lot of programs are implemented with fidelity in terms of frequency of remediation, assessments, grouping of students based on progress. Most high schools (and even upper primary space) have nothing. Staffing anything with COVID and with teaching shortages is a problem. The first thing to be cut is always small group intervention.”

A current ACT teacher told Equity Economics, “It seems to be up to individual schools to make the decision about intervention. Often if there is a Tier 2 intervention, it can be staffed by part-timers, most back from maternity leave or on a similar sort of arrangement. They aren’t in that position because they are experienced; it’s more of a staffing issue. One school I know has an untrained Learning Support Assistant delivering intervention to one group of children and the students are not all at the same level; there’s no fidelity.”

Another current teacher said, “Lots of schools seemed to purchase the MiniLit kit in 2017-18 but had trouble staffing the programs. I got asked to run an intervention program and I had no training and zero knowledge.”

Chapter 8: Step 5 – Tertiary programs



KEY POINTS

- Universities should ensure teaching qualifications are comprehensively aligned with evidence-based practice and are consistent with the Australian Curriculum.
- Many Initial Teacher Education graduates across Australia are leaving university underprepared to teach children how to read.
- Canberra based universities have work to do in ensuring preservice teachers have a solid grounding in evidence-based practices. Initial Teacher Education curriculum is changing, but not fast enough.

The importance of quality Initial Teacher Education

The Quality Initial Teacher Education (QITE) Review found that many Initial Teacher Education (ITE) graduates across Australia are leaving university underprepared to teach children how to read.⁷⁰ Variance in approaches across ITE courses, along with a lack of exposure to rigorous research, is producing cohorts of graduates who are not equipped to teach this fundamental skill. The QITE Expert Panel heard from teachers that many had felt underprepared by their ITE program for the practical aspects of teaching reading, including phonemic awareness and phonics. Concerns raised by the QITE Expert Panel and stakeholders are significant. If teachers are not equipped to teach reading effectively, this can have far-reaching consequences for the education and future prospects of their students.

In 2019, the Australian Institute for Teaching and School Leadership (AITSL) made significant changes to ITE accreditation standards with respect to the teaching of literacy.^{71 d} These changes mean that ITE programs must include course content that gives pre-service teachers the knowledge and skills to teach phonemic awareness, phonics, fluency, vocabulary and comprehension and substantially increase the minimum time spent on literacy. While the AITSL changes now require ITE to cover key skills for reading consistent with evidence-based practices, they do not preclude the teaching of literacy instruction practices that are not effective for teaching all children to learn to read, such as the three-cueing approach.

Lessons for the ACT

Academics and researchers play a critical role in advancing understanding of how children and adults become literate and in developing new approaches and techniques to improve literacy outcomes. Academic institutions should prioritise the recruitment and training of researchers and academics who specialise in evidence-based literacy instruction. Universities should ensure the teaching qualifications offered are comprehensively aligned with evidence-based practice, meet the AITSL standards and are consistent with the Australian Curriculum.

According to Ross Fox, Director of Catholic Education Canberra and Goulburn, initial teacher courses at the local universities have work to do in ensuring preservice teachers have a solid grounding in evidence-based practices.⁷² “We’ve just got too many early career teachers who, when we introduce them to the science of learning and the science of reading, to what we believe are the good pedagogical approaches, say, ‘I wish I’d heard about this at university,’” Fox said. “I’ve got reservations that Initial Teacher Education might spend too much time on the philosophy or sociology of education, and not enough on the craft of teaching and what the science of learning and reading says about how to be effective in that craft.”

It appears universities may be teaching to enable new teachers to operate in the current environment of schools, rather than on what the research says works best for literacy instruction.

^d AITSL Standards require at least one-eighth of a year equivalent full time student load for early reading instruction covering evidence-based practice across the following elements: phonemic awareness, phonics, fluency, vocabulary, comprehension and oral language.

Both the University of Canberra and the Australian Catholic University (ACU) have significantly transformed their curriculum. Up until a few years ago, students were instructed in balanced literacy approaches only. Now they receive instruction in evidence-based practices as well as balanced literacy.

According to the Dean of Education at the University of Canberra, Barney Dalgarno, “Students are told that they will encounter many diverse practices in schools and that their degree has been structured in such a way that they can operate in different settings”. The Dean predicted that it will take a generation before teaching graduates who have benefitted from training in phonemic awareness, phonics, fluency, vocabulary and comprehension make up the majority of teachers and principals in schools across Canberra.

Due to the lagged impact of changes to teacher education, the education system cannot rely on Initial Teacher Education alone to lift literacy outcomes.

Dr Kate Highfield from the School of Education at ACU asked, “Teaching degrees are changing, but are they changing fast enough? The ACU engages in ongoing course review. Have we got it right? No, but we keep working on it”.

Box 7: Australian Centre for the Advancement of Literacy

The ACU has announced it is establishing an Australian Centre for the Advancement of Literacy to improve literacy education in Australia.⁷³ The centre will focus on early years literacy and effective interventions across all years of schooling, with the aim of supporting evidence-based teaching practices. The centre will provide custom/short courses, support evidence-based teacher education programs and postgraduate courses, provide a Sydney-based reading clinic open to the public, undertake research, and develop collaborations with schools and systems across the education sector. The initiative is in response to a need for evidence-based practices in teaching reading, identified in the Quality Initial Teacher Education Review.

Establishment of a reading clinic

To assist students who require intervention in reading, a Canberra-based reading clinic should be established at a local university campus. This clinic should be staffed by trained professionals who specialise in evidence-based reading interventions informed by science and provide individualised support to students. The clinic should also serve as a resource for teachers and provide professional development opportunities to help them better understand the needs of struggling readers and how to support them in the classroom. By establishing a dedicated reading clinic, students who require intensive support can receive the help they need to improve their reading skills and achieve academic success.



Chapter 9: Rapid improvement is possible



KEY POINTS

- Two Australian case studies suggest rapid progress is possible:
 - Government schools in South Australia; and
 - Catholic schools in the Canberra region.
- South Australian schools have seen a lift in the ability of children to decode words following the introduction of the Literacy Guarantee Unit, including for equity cohorts.
- Catholic schools in the ACT have lifted the performance of Year 3 students in reading, writing and spelling over the past four years following a significant change management process.

South Australia's literacy guarantee

South Australian Literacy Guarantee Unit

Five years ago, the South Australian Government made a literacy guarantee to parents in South Australia that their children would learn to read. It established a Literacy Guarantee Unit to oversee the provision of high-quality curriculum materials for schools, professional development for teachers and screening tools to identify students at risk of not reaching grade level standards. The improvement strategy is based on evidence that a strong literacy foundation has a positive lifelong impact on a person's health, welfare and wellbeing. The unit's approach to literacy education has a focus on all children learning to read with explicit teaching strategies in the early years and to promote equity and efficiency in learning by all children.^e

The Literacy Guarantee Unit is responsible for the development and publication of a range of resources, the delivery of leadership planning, data analysis and professional learning to improve teacher knowledge and capacity for the teaching of literacy to students. The Unit has produced, delivered and supported the implementation of resources including curriculum guidebooks, best advice papers, scope and sequence documents and curriculum planning guides.

Professional development

A core part of the Unit involves overseeing a team of literacy coaches who provide intensive support to teachers, focusing on teachers with students in Kindergarten-Year 2. The South Australian Government has made a significant financial commitment to support provision of literacy coaches with over \$36 million committed in the eight-year period from 2018-19 to 2025-26.

Schools receive different levels of support based on student results, past support from coaches and current teacher skill level. The number of schools a coach works with takes into consideration travel time and the time required for non-coaching planning and professional support; and the coaching model must be provided face to face. The team has established time in the office for coaches to collaborate and connect with each other to ensure consistency of practice and quality of delivery. The number of coaches has increased since 2018 in response to the increased capacity and interest of the system to engage with coaches. Other states seeking to establish a similar initiative would need to consider these factors in relation to their system. The unit also delivers state-wide, cross-sector conferences targeting decoding, vocabulary, spelling, fluency, phonological and phonemic awareness.

These conferences are available to educators of all year levels although they are targeted towards the teaching of foundational literacy skills.

^e Equity Economics is grateful to the South Australian Department of Education for correspondence outlining the South Australian Government's investment in literacy.

Phonics Screening Check

The Phonics Screening Check has been mandated for Year 1 students in South Australian Government schools since 2018. Approximately 1,400 Year 1 teachers implement the check with approximately 13,000 Year 1 students each year. Schools are provided with one day of release time for teachers to implement the check with their students. The check also includes a range of professional learning which has been adapted and expanded annually as the level of expertise and experience in South Australia grows.

In 2022, all teachers new to Year 1 received one-day teacher release time to attend professional learning on phonics and how to implement the check. Reception (Kindergarten) teachers also received an additional day to attend professional learning on the foundations of reading. While Reception teachers do not implement the check, it is important that they have the same understanding about the teaching of reading as Year 1 teachers. In 2022, over 1,400 teachers attended the Phonics Check professional learning.

When the check was first introduced (2018-2020) schools received funding for a three-day release for all teachers of Year 1 students to provide one day for professional learning, one day for implementing the check and one day to analyse and respond to the results. As the expertise and experience of South Australian teachers has grown and the teaching of quality systematic synthetic phonics has become normal classroom practice, this release time has been reduced to one day to implement the check. The South Australian Government has supported implementation of the Year 1 Phonics Check with over \$15 million in the eight-year period from 2018-19 to 2025-26.

Proven results

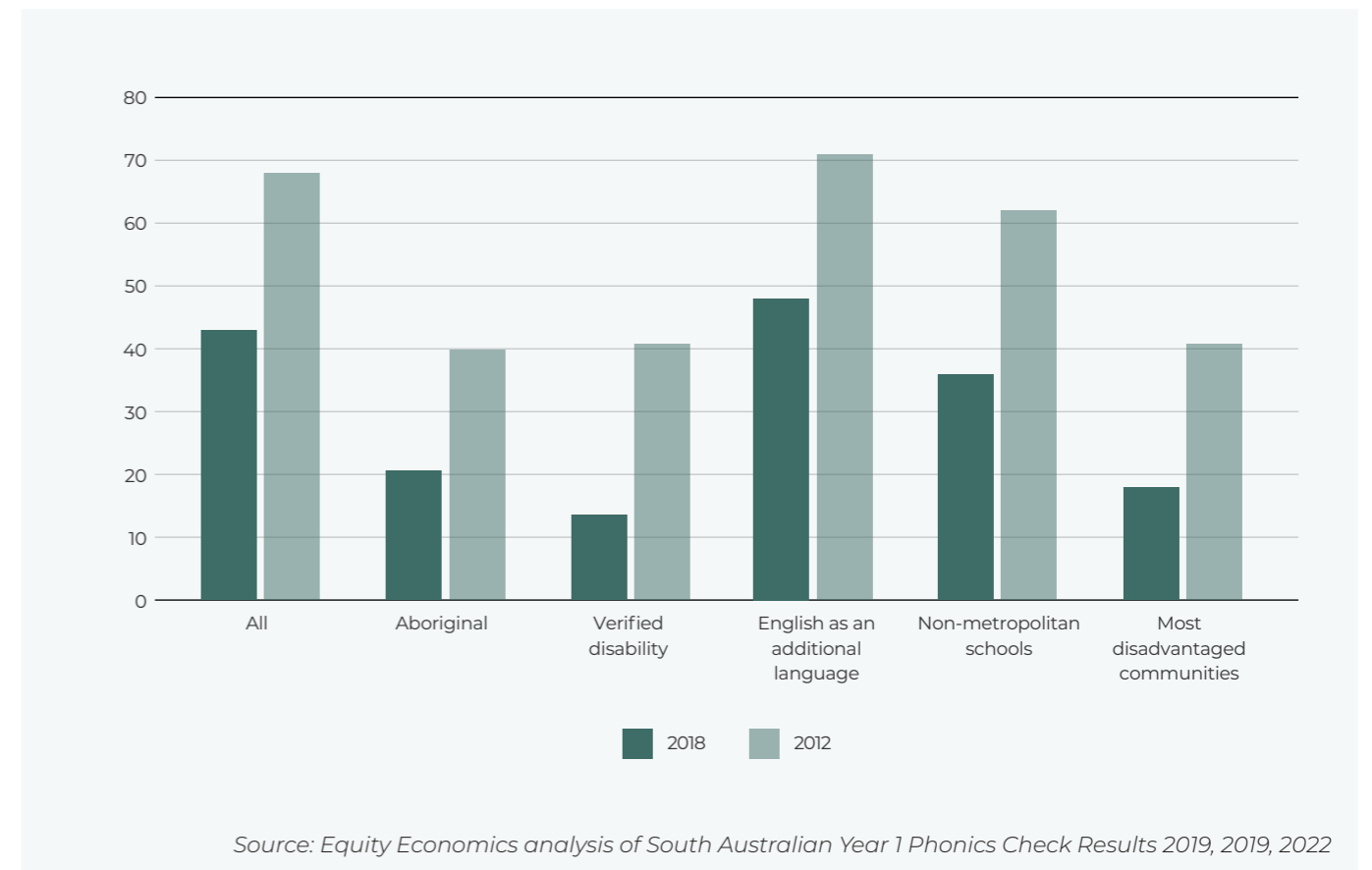
According to the South Australian Government, since the commencement of the Literacy Guarantee unit, all data, including Phonics Check results, indicate that the unit has had a highly effective impact on student literacy skills.

The 2021 South Australian Phonics Check results show state-wide improvement in the ability of Year 1 students to decode and blend letters into words (see Figure 4.1).⁷⁴

- In 2018, only 43 per cent of all students in South Australia met the expected achievement level for the check. Four years later, in 2022, 68 per cent met the benchmark. This is a remarkable improvement of 25 percentage points.
- In 2018, only 14 per cent of students with a verified disability met the check. In 2022, this number increased to 41 per cent representing an improvement of 27 percentage points.
- In 2018, only 36 per cent of students in non-metropolitan schools met the benchmark. In 2022, this number increased to 62 per cent, representing an increase of 26 percentage points.
- In 2018, only 18 per cent of students in the most disadvantaged schools met the benchmark. In 2022, this number increased to 41 per cent, representing an increase of 23 percentage points.
- In 2018, only 48 per cent of students with English as a second language met the benchmark. In 2022, this number increased to 71 per cent, representing an increase of 23 percentage points.
- In 2018, only 21 per cent of First Nations students met the benchmark. In 2022, this number increased to 40 per cent, representing an increase of 19 percentage points.

According to the South Australian Government, COVID impacted collection of data and reduced the capacity of the South Australian Literacy Guarantee Unit to engage with schools. An impact analysis will be completed in 2023.

Figure 4.1: % of SA students that met Year 1 Phonics Check benchmark, 2018, 2022



ACT Catholic Schools have significantly improved performance

In 2020, Catholic Education Canberra and Goulburn (CECG) launched the Catalyst program, a system-wide transformation of instructional approaches across 56 schools in the ACT and Goulburn aimed at improving literacy. Catalyst was generated because Catholic schools believed they could achieve more with their students.

CECG recognised that major system wide change was required in order to lift overall performance and that this needed to be supported by a centralised, coordinated and funded program, which could not be fully achieved by individual schools within existing budgets.^f The program has two goals: ensuring every student is a competent reader; and making high-impact teaching practice visible in every classroom.

Catalyst is an ambitious change-management program with three key elements involving measurement, curriculum and pedagogy:

1. Measurement: effective use of data, measurement and universal screening to identify children at risk of not reaching grade level standards and to ensure all children reach their potential;
2. Curriculum: evidence-based curriculum based on the five key skills required for reading: phonemic awareness; phonics; fluency; vocabulary; and comprehension; and
3. Pedagogy: high impact teaching based on cognitive load theory.

^f Equity Economics is grateful to Patrick Ellis and Jessica Colleu Terradas from CECG who met with Equity Economics and shared information about Catalyst.

Stages of reform

The first phase of program development involved analysis of student performance data and the different curriculum resources in use across Catholic schools. This research highlighted the need to focus more on teaching and learning because there was significant variation in teaching practices across schools. A very small number of schools were using high-quality evidence-based teaching practices including systematically teaching students letter-sound relationships (phonics), while many others were using approaches where students were being taught to guess unknown words or based on rote memorisation of words.

The second phase involved providing professional development for school principals to empower them to lead the change-management process within their schools. Principals were provided information on reading data in each school. Dedicated performance improvement leaders worked with individual schools to put together data-driven school improvement plans.

Catalyst has also significantly invested in screening tools to identify children at risk of not reaching grade level literacy standards. In 2021, all schools implemented a compulsory Year 1 Phonics Check to identify children who have not sufficiently retained information on letter-sound relationships. Universal screening for literacy skills has now been rolled out in primary schools from Kindergarten to Year 2, with schools provided access to tools that also allow screening in Years 3 to 6. This data is used to identify children who require intervention.

Evidence-based curriculum

Prior to the introduction of Catalyst many Catholic schools were using a balanced literacy approach. The Catholic Education Office sought advice from leading academics in the field and found that this form of instruction is not consistent with the science on how children learn to read.

CECG now requires all schools to focus on explicit instruction of the five essential reading skills (phonemic awareness, phonics, fluency, vocabulary and comprehension).

The initial focus of Catalyst was on Kindergarten to Year 2, but the program has now expanded to Years 3-6 and into secondary schools in order to lift the performance of students in all years.

A curriculum review was undertaken of mathematics and English resources as there was a high level of variance in resources used across and within schools with a high dependency on teachers independently finding their own classroom materials. The Catholic Education Office is working towards removing the time burden on teachers having to find their own resources by developing a low-variance curriculum. Patrick Ellis is a former principal who is now leading implementation of the Catalyst Program in the Catholic Education Office. Patrick told Equity Economics:

“Teachers have really appreciated having access to high-quality English and mathematics curriculum materials. It has enabled them to spend more time on teaching and less time looking for and developing their own materials.”

Supporting teachers to deliver high impact teaching

The focus of Catalyst is on teachers as the most important learners. Fundamental to this is a responsibility for teachers to be aware of cognitive load theory to design effective instruction. A significant investment has been made in supporting teachers with highly experienced instructional coaches who provide coaching and feedback on high impact teaching practices based on cognitive load theory. In practice this means that teachers in Catholic schools have been provided with training and coaching to transition from “inquiry-based learning” to “explicit instruction”.

Resourcing

CECG has provided significant additional resources to schools to support implementation of the program including funding:

- two days of training for teachers in the new literacy curriculum (including release time);
- the purchase of curriculum resources to implement evidence-based programs;
- to provide teachers with access to coaches who are highly qualified in implementation and effective use of high impact teaching practices; and
- for the purchase of decodable readers for students in the foundational years which support children to sound out words, rather than to guess words.

Patrick Ellis told Equity Economics:

“Prior to launching Catalyst, the Catholic Education Office considered the barriers to implementation and wanted to make sure that funds, resources, time, and support would not significantly undermine the success of the program. For this reason, the Catholic Education Office has provided significant additional support and resources to schools to access teacher training and coaching, as well as curriculum and instructional materials. Through the change process, we are supporting schools in ongoing maintenance of these programs and practices, including ensuring priority is placed on what will have greatest positive impact on student learning.”

Timeline

In 2019-20 schools began exploring the concepts underpinning the Catalyst program through immersions and evidence forums with high-performing schools across the country. Catalyst officially launched in October 2020 at which time schools began engaging in research and evidence and discussing what that meant for their practice. All schools commenced implementation in 2021 with some fully adopting all elements of the program and others incrementally changing their practice.

Challenges and opportunities

There have been challenges to implementation that have had to be carefully managed, including getting buy-in from experienced teachers in the system and matching up the skills needed by newly-graduated teachers with the training they receive at university. Patrick Ellis told Equity Economics: “It has been hard work for our teachers. We have 1,800 teachers at varying points in their careers. Some are just out of university, and some have been in the system for 40 years. As teachers are learning new practices, it is understanding what they can stop doing now to ensure teaching is as efficient and effective as it can be. Schools have invested a lot of money into resources in the past like predictive readers, so we need to help them build their knowledge as to why these are ineffective for student learning.

Changing practice can be threatening. Teachers have had to make themselves quite vulnerable in seeking support and getting coaching in the classroom. We don't criticise what was done in the past, that is what we knew then. We've encouraged teachers to approach the change as building upon where they are now with additional knowledge. We recognise that Catalyst is a longer-term approach and are committed to supporting our teachers to evolve their practice to be one that is high impact and based on the research on how students learn.

Through Catalyst, we have found that it isn't just experienced teachers who are wanting more support with deepening their knowledge with how students learn, but teaching graduates are too. We are working with the universities to build their understanding of what knowledge and skills are required for teachers who want to work in Catholic schools.

With the work our schools are doing with Catalyst, there is more and more interest from teachers outside our system, wanting to work in a system that prioritises teaching and learning, based on the research.

With enrolments increasing for our system, we are wanting to strengthen our position as an attractive employer, and Catalyst is a strong enabler for this.”

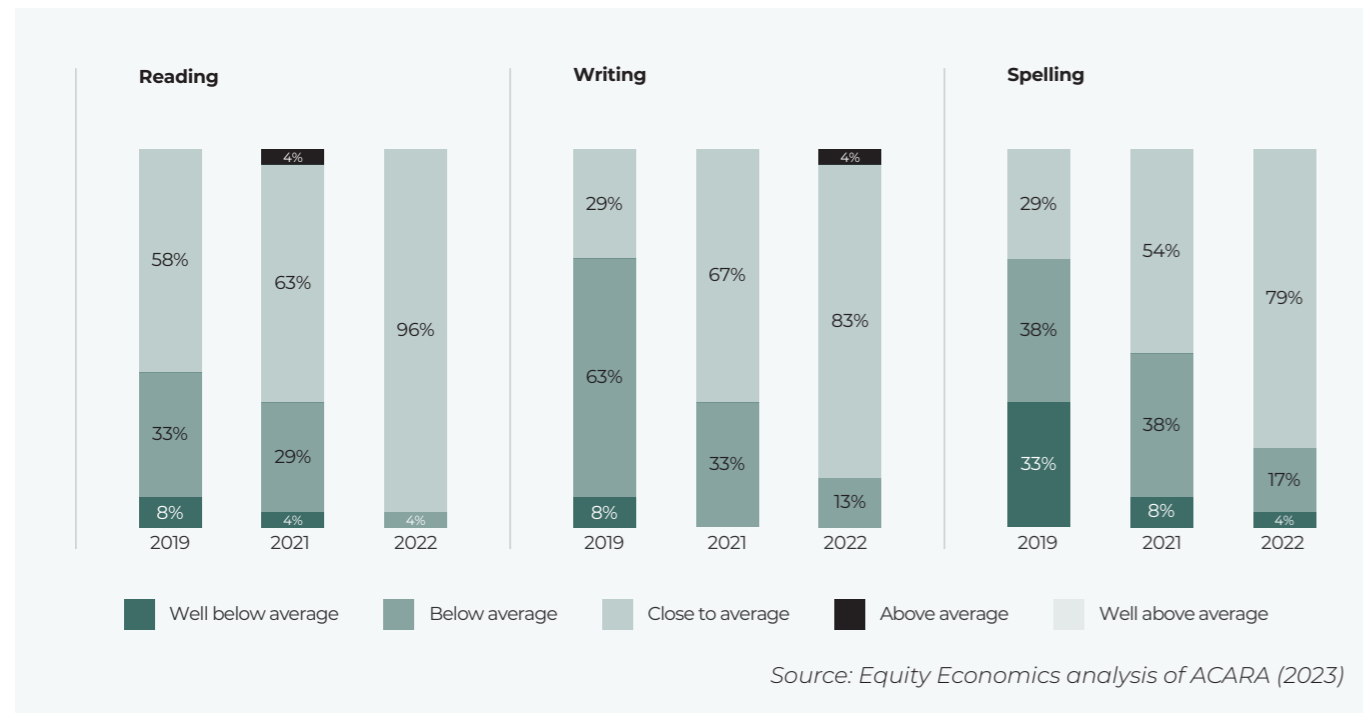
Analysing the Catalyst event study

Catalyst provides a unique opportunity to understand the impact of a variation in education policy over time. The program was launched in 2020 with a stronger focus on students in Kindergarten to Year 2. Students who were in later year grades did not initially have exposure to the significant changes implemented in these foundational years.

Catholic schools have lifted the performance of Year 3 students over the past four years (see Figure 4.2).⁹

- Reading: in 2019, 42 per cent of Catholic schools were underperforming compared to students in similar schools in the rest of the country. In 2022, only four per cent of Catholic schools underperformed.
- Writing: in 2019, 71 per cent of Catholic schools were underperforming. In 2022, only 13 per cent of Catholic schools underperformed.
- Spelling: in 2019, 71 per cent of Catholic schools were underperforming. In 2022, only 21 per cent of Catholic schools underperformed.

Figure 4.2: NAPLAN Literacy results, Year 3, Catholic schools in Canberra (% schools compared to similar students in Australia) 2019-2022



⁹ Publicly available My School data from ACARA provides information on the Year 3 NAPLAN performance of Catholic schools in the ACT in reading, writing and spelling. This data has been used to calculate the percentage of Catholic schools in the ACT that are below or well below average compared to similar students in Australia. In 2020 education ministers decided that NAPLAN testing would not proceed that year due to the COVID-19 pandemic. Note totals may not add due to rounding.



Chapter 10: A blueprint for reform in the ACT and across Australia



KEY POINTS

- The literacy reform processes in South Australia and in Catholic schools in Canberra provide a blueprint for other sectors and states in high-quality research-based literacy instruction.
- The common elements relate to curriculum, universal screening and professional development for teachers.

Learning from South Australia and ACT Catholic schools

Government schools in South Australia and Catholic schools in Canberra have both lifted the performance of their students following the introduction of high-quality research-based literacy instruction reform packages. The key elements of the programs for reform across these two systems are:

- a high-quality evidence-based curriculum;
- universal screening to identify students at risk of falling behind in reading and data to lift performance for all students; and
- professional development for teachers.

The lessons from these education reform processes are not only relevant to Government schools in the ACT, but to schools all across Australia and in comparator countries such as New Zealand, Canada, and the United States.

In 2019, prior to the introduction of the Catalyst reform program, Year 3 students in Government schools in Canberra and Catholic schools in Canberra had a similar profile when compared to similar students in the rest of the country. A significant number of schools in both sectors were underperforming.

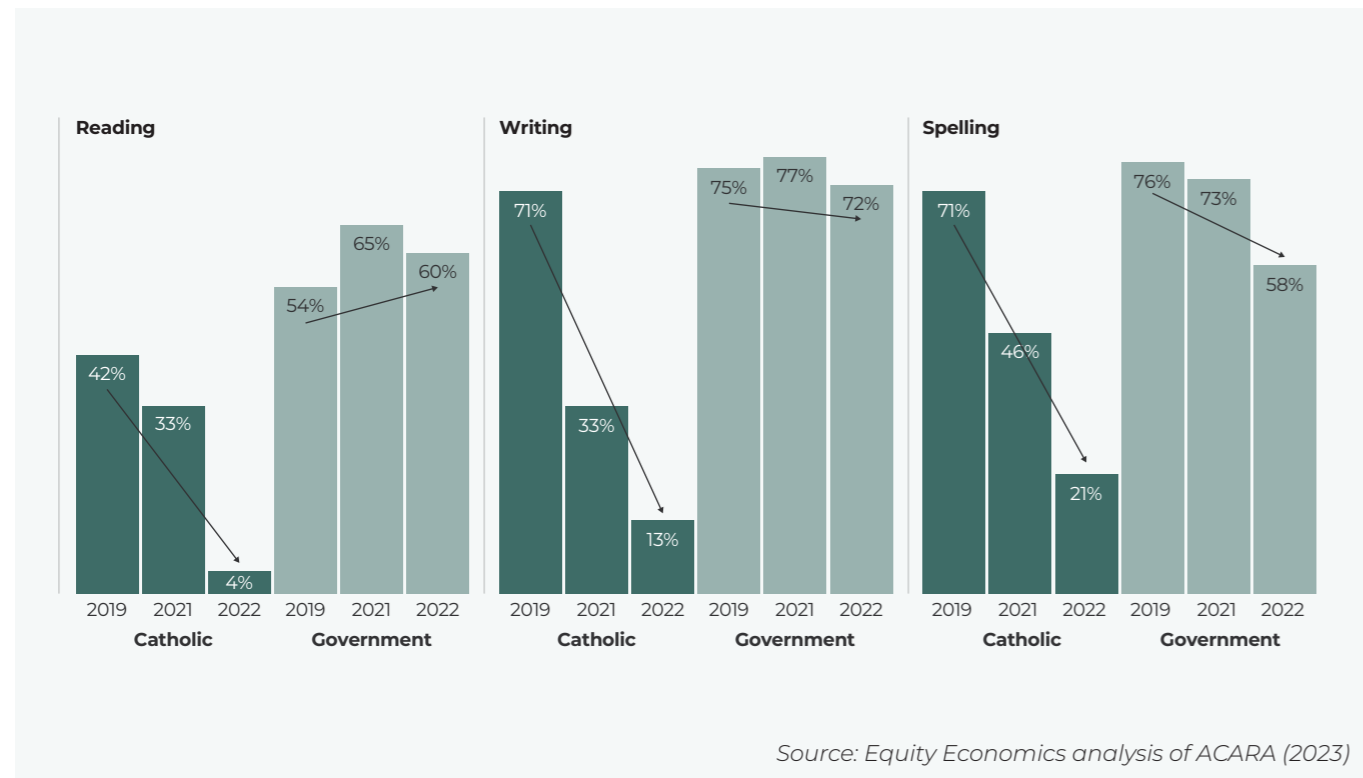
There shouldn't be any reason for Catholic schools in Canberra to be outperforming government schools. In the normal course of events there is no performance advantage in Australia for students of the same socioeconomic background who attend an independent school or Catholic school over a government school both in terms of PISA performance and in student progress in NAPLAN.⁷⁵

Box 8: Comparative performance of schools in Canberra 2019-2022

While Catholic schools in Canberra have lifted the performance of Year 3 students over the past four years, Government schools have not achieved the same levels of improvement (see Figures 4.3 and 4.4).^h

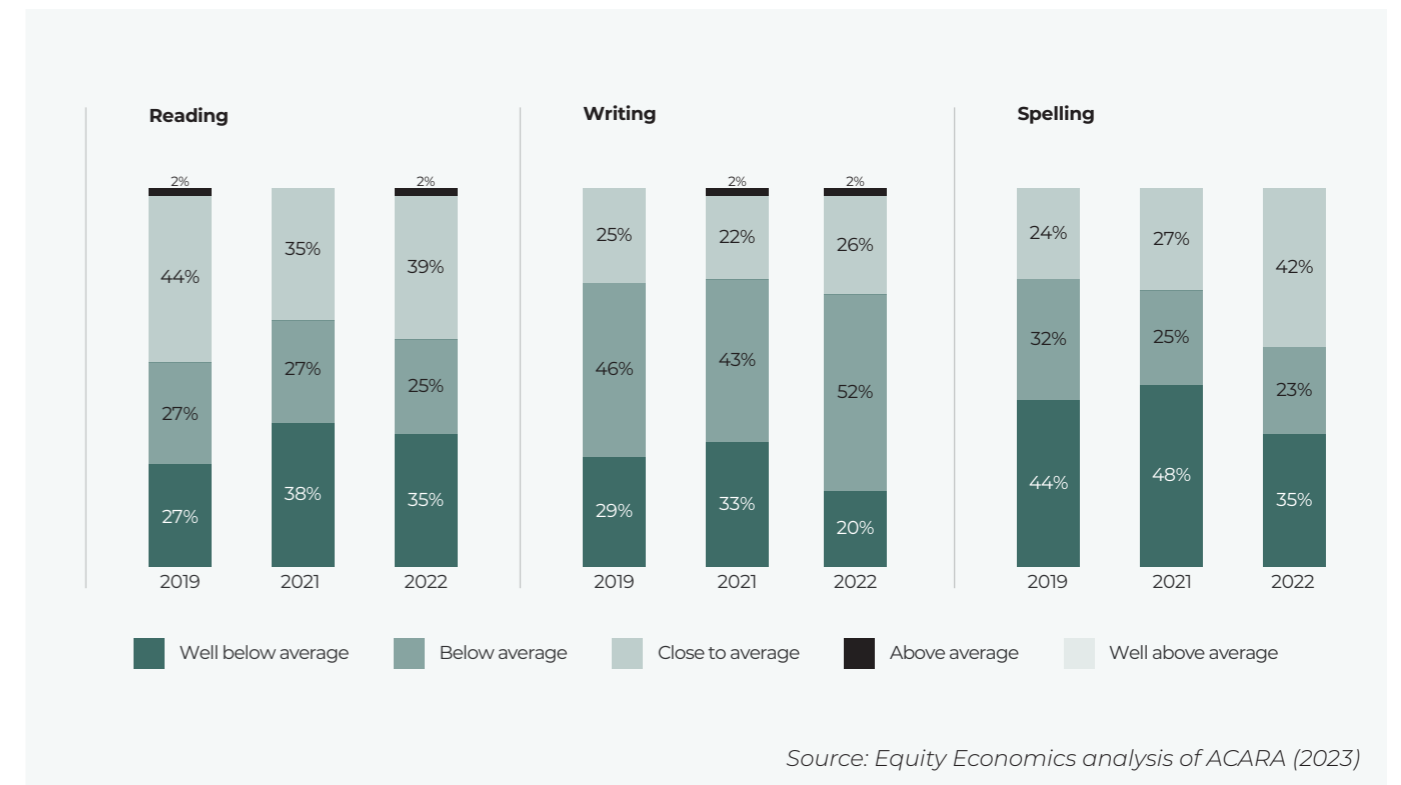
- Reading: in 2019, 42 per cent of Catholic schools and 54 per cent of Government schools were underperforming. In 2022, only four per cent of Catholic schools underperformed compared to 60 per cent of Government schools.
- Writing: in 2019, 71 per cent of Catholic schools and 75 per cent of Government schools were underperforming. In 2022, only 13 per cent of Catholic schools underperformed compared to 72 per cent of Government schools.
- Spelling: in 2019, 71 per cent of Catholic schools and 76 per cent of Government schools were underperforming. In 2022, only 21 per cent of Catholic schools underperformed compared to 58 per cent of Government schools.

Figure 4.3: NAPLAN Literacy results, Year 3, Catholic & Government schools in Canberra (% schools below or well below average compared to similar students in Australia) 2019–2022



^h Note in any given year the calculation excludes schools that do not have comparison data available. Jervis Bay School is also excluded as it is outside of Canberra and has a different socio-educational demographic.

Figure 4.4: NAPLAN Literacy results, Year 3, Government schools in Canberra (% schools compared to similar students in Australia) 2019-2022



Addressing the Matthew Effect

The Matthew Effect refers to the notion that children who start out with stronger reading skills tend to continue to improve at a faster rate than their peers with weaker reading skills. This phenomenon was first described by Keith Stanovich in his 1986 book, “Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy”. According to Stanovich, children who start school with stronger reading skills are more likely to be exposed to rich and varied reading experiences, which in turn strengthens their skills even further.⁷⁶

As a result, they are more likely to be successful in school and to have more opportunities to continue developing their reading skills. This positive cycle creates a widening gap between strong and weak readers, with the gap continuing to grow over time. This phenomenon has significant implications for educational equity, as it means that early reading difficulties can have long-lasting consequences for a child’s academic success. Once a child falls behind in reading, it becomes increasingly difficult for them to catch up to their peers. This can lead to a vicious cycle of low achievement and limited

opportunities, perpetuating educational and socioeconomic inequality. Research has shown that reading trajectories are highly stable over time, with children’s reading levels in primary school being strong predictors of their later reading abilities.

Catholic schools in Canberra, and Government schools in South Australia are proactively working to address the Matthew Effect, with a demonstrated improvement in student results.

Chapter 11: The fiscal and economic costs of ensuring students in the ACT become proficient readers



KEY POINTS

- Strong reading abilities not only empower individuals but also contribute to overall economic growth.
- An initial investment of around \$11 million in evidence-based practices for literacy instruction will yield long-term benefits for Canberra of around \$198 million in lifetime earnings.

Matching investment made by other sectors and jurisdictions

In order to match investment made by other jurisdictions and other sectors, Equity Economics estimates the ACT Government will need to make a minimum initial investment of \$11 million in 2023-24 with:

- \$2.2 million for an evidence-based, low-variance, high-quality curriculum for students in Kindergarten, Year 1, and Year 2;
- \$0.5 for decodable readers for beginner readers in Kindergarten and Year 1;
- \$1.7 million to support principals and teachers with Kindergarten, Year 1, and Year 2 classes to deliver high-impact teaching through the provision of professional learning;
- \$0.8 million to introduce the Year 1 Phonics Check; and
- \$5.6 million to provide small group intervention for support students requiring additional support in all grades from Kindergarten to Year 12.

These costs are based on:

- investments made by the Governments of South Australia and New South Wales;
- modelling of small group intervention undertaken by the Grattan Institute⁷⁷; and
- analysis of commercial curriculum materials.

Many of the costs associated arise from the need for specific resources and professional training, which are one-off costs invested during the first year of delivery.

Notwithstanding this, the costs represent a starting point for investment. They do not represent the full ongoing costs required for delivering high-quality evidence-based literacy instruction in schools. For example, there will be additional costs to roll out screening from Kindergarten to Year 2 and at other critical points such as entry into high school, for one-on-one intensive support for students in schools, and for establishment of a reading clinic at a local university campus.

The return on investment is high

The long-term benefits of investing in evidence-based practices for literacy instruction (\$198 million in lifetime earnings) significantly outweigh the investment (\$11 million in 2023-24) by 18 times. See Appendix A for methodology.

By implementing evidence-based reading reforms the ACT can create a robust reading ecosystem that ensures no child is left behind. In the long term this will foster a well-educated workforce, equipped with critical thinking and communication skills, ready to take on the challenges of the modern world.

Appendix A: Evidence-based education in the ACT: high return on investment – methodology



Methodology

Our methodology for estimating the economic benefits and costs in ACT Government schools is shown below.

Impact on learning

The provision of small group tutoring and the systematic teaching of phonics both provide an extra four months of learning⁷⁸ (equivalent to a third of a school year).ⁱ

We use this research to make projections about the extra income generated for students. This equates to about \$190,000 of additional income over a lifetime in today's dollars. To put this incremental income in perspective, it equates to about an extra \$4,500 additional income per year (about a three per cent increase).

Impact on future earnings

For each additional year of schooling a person completes, their future lifetime income rises by 10 per cent. This is based on Leigh and Ryan (2008) and Leigh (2010), which estimate future income rises by an average of 10 per cent for each extra year of schooling.

Lifetime earnings are calculated by assuming 52 weeks of earnings per year and 43 years of total working years (from the age of 22 to 65), on average, over a working lifetime. Earnings are also assumed to grow by 1 per cent per annum in real terms, based on an assumption of nominal wage growth of 3.5 per cent per year and inflation (CPI) of 2.5 per cent per year over the long term. A discount rate of four per cent is applied to convert future earnings into present day 2023 dollars.

Our estimate of additional lifetime earnings is conservative for two reasons.

First, we assume that only students behind in reading who require intervention (20 per cent) benefit but any additional learning to other students in the class are not included. This is a very conservative assumption that essentially assumes that no incremental benefits accrue to the remaining students in the class despite their exposure to evidence-based literacy practices. Only 20 to 30 percent of students will learn to read regardless of how they are taught. For 60 percent of students learning to read is a formidable challenge and – of this 60 percent – for at least 20 to 30 percent of students reading is one of the most difficult tasks they will have to master throughout their schooling.⁷⁹

Second, our estimate does not include extra taxes paid or lower welfare payments received.

ⁱ The National Reading Panel Report from the United States is a comprehensive document produced by the National Institute of Child Health and Human Development (NICHD) that summarises the findings of research studies on reading instruction. According to the National Reading Panel Report, tutoring, small group, and whole class delivery systems have all proved to be effective ways of teaching phonics, and no one differed significantly from the others.

Endnotes

- 1 Thomson S, De Bortoli L, Underwood C and Schmid M (2019). Programme for International Student Assessment (PISA) 2018: Reporting Australia's Results. Volume 1 Student Performance. Australian Council for Educational Research (ACER).
- 2 Calculated using ACARA 2022 NAPLAN results published in 2023 and methodology from Goss P, Sonnemann J and Emslie O (2018). Measuring student progress: A state-by-state report card. Grattan Institute.
- 3 Productivity Commission (2022). Review of the National School Reform Agreement.
- 4 Buckingham J (2022). Still too many 'instructional casualties': A response to the Productivity Commission's Interim Report on the National School Reform Agreement. <https://fivefromfive.com.au/blog/still-too-many-instructional-casualties-a-response-to-the-productivity-commissions-interim-report-on-the-national-school-reform-agreement/>.
- 5 ACT Auditor-General (2017). Performance information in ACT public schools Report No 4/2017.
- 6 Macintosh A, Wilkinson D, & Constable A (2017). Leading the Nation? The NAPLAN performance of the ACT's high socio-economic schools. Policy Brief. The Australia Institute. Macintosh A and Wilkinson D (2018). Academic underperformance in ACT schools: An analysis of ACT school performance in NAPLAN over the period 2012 to 2016. The Australian National University, ANU Law School Working Paper.
- 7 Lamb S (2017) Government school performance in the ACT Analysis Paper. Prepared for the ACT Education Directorate by the Centre for International Research on Education Systems, Victoria University..
- 8 Goss P et al (2018).
- 9 ACARA (2023) based on publicly available My School Data
- 10 Thomson S, De Bortoli L, Underwood C, Schmid M (2020) PISA 2018: Reporting Australia's Results. Volume II Student and School Characteristics. ACER.
- 11 ACARA (nd) NAPLAN. <https://www.nap.edu.au/naplan>
- 12 OECD (nd) What is PISA? <https://www.oecd-ilibrary.org/sites/2c7c311d-en/index.html?itemId=/content/component/2c7c311d-en>
- 13 ACT Education Directorate (2022a) 2021–22 Education Directorate Annual Report.
- 14 Grattan Institute unpublished state-level analysis of ACARA (2022) using Grattan 2016 methodology for determining equivalent year levels. Note: national analysis is detailed in Sonnemann J and Hunter J (2023). Tackling under-achievement: Why Australia should embed high-quality small-group tuition in schools. Grattan Institute.
- 15 ACARA (2023). NAPLAN results. <https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-data-portal/naplan-national-report>
- 16 ACT Education Directorate (2022a).
- 17 Productivity Commission (2022).
- 18 Thomson S, et al (2020).
- 19 Moats L (1999). Teaching Reading Is Rocket Science, What Expert Teachers of Reading Should Know and Be Able To Do. American Federation of Teachers. <https://www.louisamoats.com/Assets/Reading.is.Rocket.Science.pdf>.
- 20 Productivity Commission (2022).
- 21 Human Rights Act 2004 (ACT)
- 22 AERO (nd). About us. <https://www.edresearch.edu.au/about-us>.
- 23 AERO (2023a). Introduction to the science of reading. <https://www.edresearch.edu.au/resources/introduction-science-reading>.

- 24 Five from Five (nd). The three cueing system. <https://fivefromfive.com.au/phonics-teaching/the-three-cueing-system/>.
- 25 Kilpatrick D (2015). Essentials of assessing, preventing, and overcoming reading difficulties. Wiley.
- 26 Lyon R (2002). Statement by Reid Lyon Chief, Child Development and Behaviour Branch, National Institute of Child Health and Human Development on Learning Disabilities and Early intervention strategies for the subcommittee on education reform committee on education and the workforce, US House of Representatives.
- 27 ACARA (2022). Australian Curriculum, English, F-10 Version 9.0, Curriculum content F-6.
- 28 ACT Education Directorate (nd) Australian Curriculum. <https://www.education.act.gov.au/public-school-life/Our-Curriculum/australian-curriculum>
- 29 Schwartz S and Will M (2023). "Why Some Teachers' Unions Oppose 'Science of Reading' Legislation." Education Week.
- 30 ACT Education Directorate (2022b). Budget Estimates Hearings 19 October 2022. https://www.education.act.gov.au/_data/assets/pdf_file/0007/1925008/EDU_2021_019_Records_Stage-2_Part-3.pdf.
- 31 Baker, J (2021) 'Just so important': huge deployment of new books to help kindy kids read'. The Sydney Morning Herald 17 July 2021.
- 32 *ibid*
- 33 ACT Education Minister (2019) Response to Petitions Nos 013-19 – Support for students with learning difficulties.
- 34 Australian Education Union ACT Branch (2022) Submission into the Inquiry on the ACT Auditor General's report No 6 of 2021: Teaching Quality in ACT Public Schools.
- 35 Hunter J, Haywood A, and Parkinson N (2022). Ending the lesson lottery: How to improve curriculum planning in schools. Grattan Institute.
- 36 Smith R, Snow P, Serry T and Hammond L (2023). "Elementary Teachers' Perspectives on Teaching Reading Comprehension." [Journal of] Language, Speech and Hearing Services in Schools. American Speech-Language-Hearing Association.
- 37 AERO (No Date). Explicit instruction. <https://www.edresearch.edu.au/practice-hub/explicit-instruction>.
- 38 AERO (2023b), Benchmarking performance, [edresearch.edu.au](https://www.edresearch.edu.au)
- 39 Smith (2023).
- 40 Macintosh (2017).
- 41 Darling-Hammond L, Hyler M E, Gardner M (2017). Effective Teacher Professional Development. Palo Alto, CA: Learning Policy Institute.
- 42 Catholic Education Canberra Goulburn (nd) High Impact Teaching Practice <https://catalyst.cg.catholic.edu.au/initiatives/high-impact-teaching-practice/>
- 43 Rosenshine B (2012) 'Principles of instruction: Research-based strategies that all teachers should know'. American Educator, 36(1), 12–39.
- 44 ACT Auditor-General (2021) Teaching Quality in ACT Public Schools Report No. 6/2021.
- 45 ACT Auditor-General (2017).
- 46 ACT Education Directorate (2022a).
- 47 Education Act 2004 (ACT).
- 48 ACT Auditor-General (2017).
- 49 Gersten r, et al (2008) Assisting Students Struggling with Reading: Response to Intervention (RtI) and MultiTier Intervention in the Primary Grades: A Practice Guide NCEE 2009-4045 (Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education).
- 50 ACT Education Directorate (2022b).
- 51 *ibid*
- 52 Victoria State Government Department of

- Education (2023) Running Records. <https://www.education.vic.gov.au/school/teachers/teachingresources/discipline/english/literacy/readingviewing/Pages/examplerunning.aspx>
- 53 Schwartz, S (2020) Is the end of 'three cueing'? Education Week.
- 54 NSW Government – Education (2023) Year 1 Phonics Screening Check <https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/assessment-resources/phonics-screening-check>
- 55 Rockliff J (2020) Year one phonics check to be expanded, Media release from Minister for Education and Training 26 November 2020 https://www.premier.tas.gov.au/site_resources_2015/additional_releases/year_one_phonics_check_to_be_expanded
- 56 Carey A (2022) "Phonics skills test to be mandated for Victorian grade 1 students", The Age, 31 September 2022.
- 57 Hiatt, B (2022) 'Education Minister Sue Ellery, Premier Mark McGowan unveil WA phonics test for Year 1 students'. The West Australian 5 May 2022.
- 58 Ireland, J (2018) 'Testing times: do we need to assess reading and numeracy of six year olds' The Canberra Times 24 April 2018.
- 59 Standards & Testing Agency (2017) National curriculum tests Key stage 1 assessment framework for the development of the Year 1 phonics screening check for test developers.
- 60 Ontario Human Rights Commission (2022) Inquiry report – right to read – public inquiry into human rights issues affecting students with reading disabilities.
- 61 McGrane J, Stiff J, Baird J, Lenkeit J and Hoopfenbeck T (2017) Progress in International Reading Literacy Study (PIRLS): National Report for England Oxford University Centre for Educational Assessment (OUCEA).
- 62 The Rt Hon Nick Gibb MP and The Rt Hon Rishi Sunak MP (2023) Press release: England moves to fourth in international rankings for reading Department of Education <https://www.gov.uk/government/news/england-moves-to-fourth-in-international-rankings-for-reading>
- 63 Sonnemann, J (2023).
- 64 De Bruin K, Kestel E, Francis M, Forgasz H and Fries R (2023) Supporting students significantly behind in literacy and numeracy: a review of evidence-based approaches, edresearch.edu.au AERO Monash University.
- 65 Colleu Terradas J (2023). To identify effective language and literacy screening and intervention practices for at-risk students. Winston Churchill Trust.
- 66 Productivity Commission (2022).
- 67 Sonnemann J (2023).
- 68 Evidence for Learning (2021b). Small Group Tuition. <https://evidenceforlearning.org.au/education-evidence/teaching-learning-toolkit/small-group-tuition>
- 69 ACT Government Education and Training (2013) Taskforce on Students with Learning Difficulties Final Report June 2013.
- 70 Elliott M, Loudon B, Mohr J, Paul L, Scott D and Australia. Department of Education, Skills and Employment, issuing body. (2022). Next steps : report of the Quality Initial Teacher Education Review.
- 71 Australian Institute for Teaching and School Leadership (2022) Accreditation of initial teacher education programs in Australia, AITSL, Melbourne.
- 72 Duggan, S (2022) Science of learning shift: Catholic school system overhauls teaching approach. Education HQ. 2 August 2022. <https://educationhq.com/news/science-of-learning-shift-catholic-school-system-overhauls-teaching-approach-125108/>

- 73 Australian Catholic University (2022) New literacy centre and reading clinic. 14 December 2022 <https://www.acu.edu.au/about-acu/news/2022/december/new-literacy-centre-and-reading-clinic>
- 74 Government of South Australia Department for Education (2018, 2019, 2022) Phonics Screening Check factsheets for 2018, 2019, 2022 <https://www.education.sa.gov.au/docs/curriculum/2018-phonics-screening-check-fact-sheet.pdf> <https://www.education.sa.gov.au/docs/curriculum/2019-phonics-screening-check-fact-sheet.pdf> <https://www.education.sa.gov.au/docs/curriculum/2022-phonics-screening-check-results-fact-sheet.pdf>
- 75 Thomson et al (2019) and Goss et al (2018).
- 76 Stanovich, K (1986) Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy. Reading Research Quarterly VL 21 DO 10.1598/RRQ.21.4.1
- 77 Sonnemann J (2023).
- 78 Evidence for Learning (2021a & b).
- 79 Lyon, G. R. (1998) Overview of reading and literacy initiatives from the National Institute of child Health and Human Development. US Senate Committee on Labor and Human Resources, United States Congress, Congressional Printing Office, Washington.





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