CHAPTER 3
Australia's performance

Students cannot be disadvantaged because they do not necessarily have the money to attend the greatest and best school in the country or the state. Regardless of whether they are in the corner of the Pilbara or in the leafy green suburbs of Perth they need to have that access.¹

3.1 This chapter provides a discussion of the successes and challenges experienced by Australian students. The key national and international testing programs are outlined and the performance of Australian students in literacy, mathematics and science is examined. This data is used as a foundation to examine the education outcomes of students facing particular challenges; including an analysis of students from low socio-economic backgrounds, students living in non-metropolitan areas, Indigenous students, and students with a disability. Other factors which influence educational outcomes are also discussed, with particular attention given to behavioural management, parental engagement and support for students with a disability.

Australian performance in international and national testing

Background

3.2 The Productivity Commission concluded that despite the increase of government investment in Australian schools, sufficient progress is not being made in key areas such as literacy and numeracy. The Productivity Commission surmised that:

   Despite an increase in spending per student and falling class sizes, there is evidence that student literacy and numeracy have declined in recent years, and that Australia has fallen behind other high-performing countries.

   Australia does not perform as well as comparable countries in giving students equal opportunity to realise their educational potential, irrespective of their background or ability. The resulting educational disadvantage is particularly evident among Australian students who are Indigenous, from low socioeconomic backgrounds, have a disability or other special needs, or reside in a rural or remote area.²

3.3 The key piece of assessment data to report on the performance of Australian students in the international context is the OECD Programme for International Student Assessment (PISA). The test is a survey of 15 year olds, from more than 65 mostly industrialised countries, and is conducted every three years. PISA assesses the

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¹ Ms Kylie Catto, President, Western Australian Council of State School Organisations, *Proof Committee Hansard*, 22 February 2013, p. 44.

reading, mathematical and scientific literacy achievements of students. PISA uses sample testing and approximately 14,000 Australian students participated in the survey in 2009. The schools and students were randomly selected, and included students from each state and territory and from each of the three school sectors.  

3.4 The test is sophisticated; the Australian Council for Educational Research describes PISA as assessing ‘young people’s ability to apply their knowledge and skills to real-life problems and situations rather than how well they have learned a specific curriculum’. Dr Ben Jensen described the PISA tests as 'not easy' and 'not rote learning' and 'a much better test than anything we have nationally'.

3.5 Two other commonly cited international tests are the Trends in International Mathematics and Science Study (TIMMS) and the Progress in International Reading Literacy Study (PIRLS) tests. Both tests are administered by the Australian Council for Education Research (ACER). TIMMS is conducted at years 4 and 8, PIRLS at year 4 only. Both of these tests use sample testing of schools and students and the tests are drawn from local curriculum. In contrast to PISA, these two tests examine what students have learnt and not how students apply this knowledge to real-life problems and circumstances. Surveys of parents, educators and students are also conducted.

3.6 At a national level, the National Assessment Program – Literacy and Numeracy (NAPLAN) is an annual assessment of Australian students in years 3, 5, 7 and 9 that tests students in reading, writing, language and literacy. The test is funded by both the Commonwealth and the states and territories (the latter on a pro rata basis). The test has been conducted in May each year since 2008, and results are available four months later in September. The government attributes this four month...
wait to the time it takes to mark and statistically analyse the test – this could be sped up if NAPLAN was delivered online. The Standing Council on School Education and Early Childhood (SCSEEC) has agreed that there is a ‘strong rationale for online delivery of NAPLAN tests' and noted that ACARA is working towards achieving this by 2016. The committee notes that this could present administrative difficulties for those schools that do not have reliable access to the internet.

**Perspectives on the value of testing**

3.7 The results outlined below have caused some commentators to express concern about the performance of Australian students in an international context. However, others have urged a sense a perspective and for policy makers, parents and politicians to read test results in the appropriate context.

3.8 For example, in relation to the TIMMS and PERLS results, Emeritus Professor Alan Reid wrote recently that it 'is simplistic to use test results from just two year levels in only three areas of the curriculum, to make claims about Australian education'. This is because while reading, mathematics and science are important, other curriculum areas such as information technology, history, geography, literature have not been assessed. Further, unlike the OECD PISA tests, the TIMMS and PIRLS tests do not test high order problem solving or creativity. As outlined below, Australian students do very well in international rankings on the more complex OECD PISA tests by Year 9 – so perhaps all we can really take from Australia's comparatively poor performances in TIMMS and PERLS is that primary school provides a good foundation for high school achievement.

3.9 A number of witnesses raised specific concerns about NAPLAN testing, arguing that the testing is expensive and encourages teachers to 'teach to the test'. Ms Lorraine Wilson, a retired teacher and deputy principal, described NAPLAN as a 'huge, vindictive black cloud' and explained that:

> It [NAPLAN] has just changed everything that is happening in our schools. The sad thing about it is that NAPLAN is making all children run the one race for education, and the ones who win are considered the winners. They are the ones who will always have their photographs on the front of the Age when they get the top NAPLAN scores. In education for every little child

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11 Alan Reid, 'Raising the level of education debate', *Professional Educator*, March 2013, pp 5–6, p. 5.

12 Alan Reid, 'Raising the level of education debate', *Professional Educator*, March 2013, pp 5–6, p. 6.

13 See for example, Mr Phil Cullen, *Submission 6*; Leslie Granville O’Gorman, *Submission 7*; Ms Lorraine Wilson, *Submission 41*. 
there is a different route. Some of the most circuitous routes are the richest and most educational.\(^{14}\)

…

So much time is going on preparation for NAPLAN. Schools start teaching the genre that is to be tested from almost after the last NAPLAN test. Some schools started practising persuasive writing for this year's test last November. So much weighting of the school's future is put on their NAPLAN results.\(^{15}\)

3.10 Mr Phil Cullen, former Queensland Director of Education, described NAPLAN as 'the worst thing that has ever happened in Australian education' and the 'biggest threat we have ever had to the cognitive development of young children'.\(^{16}\) Ms Wilson suggested that sample testing, as is the case with international testing such as PISA, should be used in Australia. This approach would enable the effectiveness of education programs to be assessed periodically without subjecting every child, every year, to testing.\(^{17}\) Mr Cullen and Ms Wilson agreed that responsibility for evaluating teaching and learning on the individual level should be 'entirely in the teachers' hands'.\(^{18}\)

3.11 In response to committee questioning, school principals rejected the suggestion that they were teaching to the test and did not share the strident criticism expressed above.\(^{19}\) For example, Haileybury Independent School submitted that NAPLAN testing is useful because the data can contribute to building a professional culture and bring a level of accountability to education.\(^{20}\) However, the Australian Council of Jewish Schools acknowledged that it had heard of schools outside its network panicking about NAPLAN results.\(^{21}\)

3.12 Professor Field Rickards described NAPLAN results as 'really, really useful' however cautioned that teachers need to be trained how to use and interpret NAPLAN data in order to improve education outcomes.\(^{22}\) The committee notes that the

\(^{15}\) Ms Lorraine Wilson, Private Capacity, \textit{Proof Committee Hansard}, 4 March 2013, p. 64.
\(^{16}\) Mr Phil Cullen, Private Capacity, \textit{Proof Committee Hansard}, 4 March 2013, p. 62.
\(^{17}\) Ms Lorraine Wilson, Private Capacity, \textit{Proof Committee Hansard}, 4 March 2013, p. 62.
\(^{19}\) See evidence given by the Australian Association of Jewish Schools, \textit{Proof Committee Hansard}, 27 February 2013, pp 1–10 and Mr John Fleming, Deputy Principal (Primary), Haileybury Independent School, \textit{Proof Committee Hansard}, 4 March 2013, p. 48.
\(^{20}\) Mr Derek Scott, CEO and Principal, Haileybury, \textit{Proof Committee Hansard}, 4 March 2013, p. 45.
\(^{22}\) Professor Field Rickards, \textit{Proof Committee Hansard}, 4 March 2013, p. 13.
usefulness of NAPLAN data will be diminished if some parents continue to withdraw their children from school on the day of the tests.\textsuperscript{23}

Conclusion

3.13 International and national testing have their limits. Critics are quite correct to point out that there is more to successful schooling than just literacy and mathematics, and that Australians may not wish to emulate the different lifestyle that some students may have in other higher performing countries. However success in these core subjects often sets students up for success in other subjects such as history, sports science and art.

3.14 The concerns raised by Ms Wilson, Mr Cullen, and others, demonstrate the importance of ensuring that parents, teachers and students understand the purpose of NAPLAN. Students should not be stressing about NAPLAN exams, or feeling judged by the results and schools should not be advertising their NAPLAN scores to attract more students. The Australian Curriculum and Reporting Authority has a special role to perform in this regard.

3.15 Testing results provide useful data on student performance, however teachers need to be given training to understand and interpret evaluative data.

3.16 In the following pages Australian's performance in NAPLAN, OECD PISA and to a lesser extent, TIMMS and PIRLS, is discussed. The key conclusion from the data is that while the majority of students are benefiting from the education system, Australian education policies are failing the most disadvantaged students: those students from low socio-economic backgrounds, Indigenous backgrounds, and students living in rural, remote and regional areas.

Recommendation 1

3.17 The committee recommends that the COAG Standing Council on School Education and Early Childhood, and the Commonwealth Government, provide teachers with training on how to use and interpret evaluative data.

Mathematics and science

3.18 Australia's NAPLAN results reveal that performance in numeracy and mathematics has remained static over the past 5 years. Internationally, there is a 'slow but gradual decline of Australia's international ranking' with a number of countries overtaking Australia by significantly improving their mathematics performance.\textsuperscript{24} The


\textsuperscript{24} AMSI, \textit{Discipline Profile of Mathematical Science 2013}, p. 4. See also, Australian Mathematical Sciences Institute, \textit{Submission 5}, Additional Information, p. 4.
table below, supplied by the Australian Mathematical Sciences Institute using PISA data, illustrates Australia's decline in mathematical performance over 2000–2009.  

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Highest country score</th>
<th>Lowest country score</th>
<th>Comparison to intern. average</th>
<th>No of countries significantly outperforming Australia</th>
<th>Countries significantly outperforming Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>533</td>
<td>557</td>
<td>334</td>
<td>Above average</td>
<td>1</td>
<td>Japan</td>
</tr>
<tr>
<td>2003</td>
<td>524</td>
<td>550</td>
<td>356</td>
<td>Above average</td>
<td>4</td>
<td>Hong Kong-China, Finland, Korea, Netherlands</td>
</tr>
<tr>
<td>2004</td>
<td>520</td>
<td>549</td>
<td>311</td>
<td>Above average</td>
<td>8</td>
<td>Chinese Taipei, Finland, Hong Kong-China, Korea, Netherlands, Switzerland, Canada, Macao-China</td>
</tr>
<tr>
<td>2009</td>
<td>514</td>
<td>600</td>
<td>231</td>
<td>Above average</td>
<td>12</td>
<td>Shanghai-China, Singapore, Hong Kong-China, Korea, Chinese Taipei, Finland, Liechtenstein, Switzerland, Japan, Canada, Netherlands, Macao-China</td>
</tr>
</tbody>
</table>

3.19 The 2009 PISA results indicate that twelve countries performed significantly better than Australia in mathematical literacy in 2009, four countries had mean scores similar to Australia’s and all other countries – including the United States and the United Kingdom – performed at a level significantly below Australia.  

3.20 The TIMSS results released in December 2012 can be contrasted with the PISA results. Australian Year 4 students were significantly outperformed by 17 countries in mathematics and by 18 countries in science. However, in the Year 8 cohort only 6 countries performed significantly better than Australia in mathematics and 9 countries in science. The Australian Council for Educational Research concluded that Australia’s performances had 'largely stagnated over the past 16 years'.  

3.21 The Australian Mathematical Sciences Institute advised the committee that while most Year 12 students study some mathematics, the proportion of students who are undertaking intermediate or advanced mathematics subjects is in decline. For example, 41.5 per cent of year 12 students studied intermediate or advanced mathematics in 1995, this dropped to 29.4 per cent in 2011. The TIMMS survey results indicated that student achievement was impacted by resource shortages and teachers who did not feel confident teaching science and/or mathematics.  

3.22 Unfortunately, many students identify mathematics as difficult, not enjoyable and not relevant to their future. A number of teachers of mathematics are teaching out of field and do not possess relevant qualifications and training. Many principals, particularly in rural areas and low socio economic areas, find it challenging to fill

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25 AMSI, *Discipline Profile of Mathematical Science 2013*, p. 5. See also, Australian Mathematical Sciences Institute, *Submission 5, Additional Information*, p. 5.


vacancies in mathematics and science disciplines. As a consequence, teachers may be required to teach outside their discipline.\textsuperscript{29}

3.23 The committee heard from a science teacher at a rural high school who advised that he was the only qualified mathematics teacher at the school. Due to staff shortages mathematics was taught by a Physical Education (PE) teacher, who did not understand negative indices. Another PE teacher was required to manage the agricultural program for the students. The witness advised the committee that this was not the fault of the PE teachers – they are trained to teach PE.\textsuperscript{30}

3.24 There are remarkable differences in the level of teacher training in discipline specific areas such as mathematics between metropolitan non-metropolitan areas. The Australian Mathematical Sciences Institute summarised that:

The percentage of teachers with three years or more tertiary education in mathematics in Years 7 to 10 is 45\% in metropolitan areas, and 37\% and 40\% in provincial and remote areas respectively. For Years 11 and 12, teachers in provincial and remote areas also show comparatively less tertiary education background in mathematics (57\% and 43\% respectively) than their counterparts in metropolitan areas at 64\%.\textsuperscript{31}

3.25 The disparity between metropolitan and other areas is illustrated in the table below, which represents the highest year level of tertiary education in field by region in 2010.\textsuperscript{32}

<table>
<thead>
<tr>
<th>Highest Year Level of Tertiary Education in Field</th>
<th>None</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3 and higher</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 7-10 Maths</td>
<td>359</td>
<td>223</td>
<td>31</td>
<td>242</td>
<td>119</td>
</tr>
<tr>
<td>Year 11-12 Maths</td>
<td>112</td>
<td>62</td>
<td>7</td>
<td>92</td>
<td>47</td>
</tr>
<tr>
<td>Year 11-12 Physics</td>
<td>28</td>
<td>11</td>
<td>9</td>
<td>38</td>
<td>24</td>
</tr>
<tr>
<td>Year 11-12 Chemistry</td>
<td>32</td>
<td>7</td>
<td>0</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Year 11-12 Biology</td>
<td>38</td>
<td>17</td>
<td>2</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

\textsuperscript{29} AMSI, \textit{Discipline Profile of Mathematical Science 2013}, p. 10. See also, Australian Mathematical Sciences Institute, \textit{Submission 5}, Additional Information, p. 10. See also, Professor Geoff Prince, Director, Australian Mathematical Sciences Institute, \textit{Proof Committee Hansard}, 4 March 2013, p. 1.


3.26 The data reveal serious performance gaps between metro students and students located outside of metropolitan areas. Fewer Australian students are studying intermediate and advanced mathematics in high school and Australia's international performance reflects this. The consequences of declining mathematic ability are grave. Fewer students are eligible to study subjects that require intermediate and advanced mathematics and science skills, such as engineering and health sciences. This contributes to skills shortages and also is cyclical, with less students with mathematical and science degrees qualifying as teachers. It is clear that prospective teachers need to receive early advice of skills shortages in teaching, and consideration should be given to ensuring that the appropriate incentives are in place to encourage skilled mathematics and science graduates to pursue careers in teaching to fill hard-to-staff positions.

**Literacy**

3.27 In the 2009 OECD PISA survey, 6 countries performed better than Australia in reading literacy: Shanghai (China), Korea, Finland, Hong Kong (China), Singapore and Canada. Three countries achieved mean scores close to Australia's: New Zealand, Japan and the Netherlands. All other countries, including the United States and the United Kingdom, performed at a level significantly below Australia.

3.28 In the 2012 PIRLS results can again be contrasted with PISA: 21 countries performed at a significantly higher level than Australia in Year 4 reading. ACER reported that the results show that around a quarter of Australian students are not reaching the minimal level of proficiency. This is the first time that Australia has participated in PIRLS so historical comparisons cannot be made.

3.29 Some commentators linked teacher literacy with student literacy results, suggesting that many teachers have not been taught how to teach language. One witness reported that he was aware of at least one primary school teacher who struggled to teach reading because in her four year education course 'she was never taught' how to do this. Ms Misty Adoniou, Academic and Lecturer at the University of Canberra, explained that while literacy skills are very important, teachers also require language knowledge so that they can 'intervene' when students are struggling. Ms Adoniou provided the following example to illustrate this point:

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33 As recommended by the Productivity Commissioner: Productivity Research Report, *Schools Workforce*, April 2012, p. 117. See also Chapters 4 and 5 of this Report.

34 Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 3.


36 Dr Kevin Donnelly, Director, Education Standards Institute, *Proof Committee Hansard*, 4 March 2013, p. 33.

A child writes, on Monday, in their journal: 'My sister go to ballet'. The teacher is interested in the story and says, "Oh, that's interesting; your sister goes to ballet. In English, we write 'goes'." They are very good at correcting. Every teacher knows that it is 'my sister goes to ballet'.

The next week, the child writes: 'I goes to soccer.' With the correction, all they have understood is that it is not 'go' it is 'goes'. They have not been told that, actually, the go and goes are dependent upon the person. If you are a second-language learner, if you have been left to figure that out for yourself, it could mean you being in the classroom for 1½ years before you figure out that rule—or you could have a teacher tell you and you would know it in one minute. We just do not have teachers who are aware of how English works in that way. It is quite a deep knowledge that you need to have.

3.30 A teacher needs to have such a deep knowledge of the English language that he or she can explain to the child why language is used in a particular way. This knowledge is important even with quite simple corrections to language. Ms Adoniou provided another example of a child writing 'I rode in a blue, big car':

We know that does not sound right. It is not a blue, big car, it is a big, blue car. If our only explanation is, 'Oh, that doesn't sound right in English. It's a big, blue car' then we have not told them that, actually, we have preferential order of adjectives in English. We need to tell them that colour goes closest to the noun. We just do not have this knowledge, as teachers, generally speaking.

3.31 Significantly, poor literacy will also have an impact on mathematics performance once children are in year 5 and above. This is because mathematical questions are no longer 'hands on' where students can play with blocks to determine the answer to mathematical questions. Instead, questions become very language based.

3.32 The committee was heartened to hear of targeted programs to support children who are functionally illiterate. The Macquarie University Multilit program applied by the Exodus Foundation has remarkable results. The Reverend Bill Crews provided evidence that students two years behind their peers can catch up to year level after an 18 week intensive remedial intervention course. The organisation runs three literacy centres, two in Sydney and one in Darwin. Having regard to the PISA results discussed in this section, unfortunately more programs of this nature are needed in Australia.

3.33 Teacher quality is discussed in more detail in Chapters 4 and 5 of this report.
Educational outcomes for different groups of students

In this section PISA data is used to examine the performance of particular cohorts of students. This is possible because the 2009 PISA survey broke down performance by state and territory and by particular groups.

Indigenous students

3.34 Indigenous students scored 82 points lower, on average, than non-Indigenous Australian students in reading literacy (and 57 points below the OECD average). ACER observed that this difference amounts to more than two full years of schooling.\(^{42}\) This result was similar to the scores for scientific literacy. In mathematical literacy, Indigenous students recorded 76 points lower, on average, than non-Indigenous Australian students. This difference amounts to almost two full years of schooling.\(^{43}\)

3.35 The NAPLAN results are equally concerning; the Closing the Gap Report 2013 observed that:

Nationally, in 2012 across reading and numeracy, the proportion of Indigenous students who are at or above National Minimum Standards ranged from 64.7 per cent for Year 5 Reading to 74.4 per cent for Year 7 Numeracy. In Persuasive Writing the best result was in Year 3 where 78.3 per cent of Indigenous students were at or above National Minimum Standards in 2012, and the poorest result was in Year 9 where only 48.8 per cent met the National Minimum Standards.\(^{44}\)

3.36 The NAPLAN results from 2008 to 2012 actually show a decrease in the percentage of Indigenous students at or above National Minimum Standards in Reading for Years 3 and 9.\(^{45}\) Overall, results for Indigenous students in remote areas are especially poor. For example, 'in 2012 only 20.3 per cent of students in very remote areas achieved at or above the National Minimum Standards in Reading, compared to 76 per cent in metropolitan areas.'\(^{46}\)

3.37 The committee heard of efforts made by governments and the community sector to support indigenous education. For example, the Smith Family runs the

\(^{42}\) Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 11.

\(^{43}\) Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 11.


\(^{46}\) Closing the Gap: Prime Minister's Report 2013, p. 27.
Girls@the Centre program in Alice Springs. This program promotes parental engagement and has resulted in improved attendance rates among participants – the majority of whom are of Aboriginal background. The Exodus Foundation remedial literacy program, discussed earlier, also supports literacy among Indigenous students in Darwin. Federal, state and territory governments also have targeted programs to support Indigenous education, including the HIPPY program discussed below.

3.38 However, on balance, this data indicates that more innovative solutions are necessary.

**Recommendation 2**

3.39 The committee recommends that the COAG Standing Council on School Education and Early Childhood continue to monitor the effectiveness of the Close the Gap program and identify further measures to improve outcomes for Indigenous students, particularly for Indigenous students in very remote areas.

**Comparisons across school sectors**

3.40 Students in the independent school sector attained significantly higher scores than students in the Catholic and government sectors, and students in the Catholic sector performed significantly better than students in the government sector. However, these differences did not remain once mean scores were adjusted to take into account individual student socioeconomic backgrounds and the school average socioeconomic background. The best indicator of student performance is socioeconomic background – not whether a student attends a public, Catholic or an independent school. This is discussed in the next section.

**Socioeconomic background**

3.41 There is no universal definition of socio-economic status, and any definition is dependent on the indices used. The committee is aware of a range of different definitions used by the Australian Bureau of Statistics, the Australian Curriculum and Reporting Authority and the Australian Council for Educational Research.

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48 Department of Education, Employment and Workplace Relations, Response to question taken on notice, 5 March 2013 (received 12 April 2013), Q7.
49 Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 12.
50 Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 12.
51 Marilyn Harrington, Senior Researcher, Social Policy, Parliamentary Library Briefing, 13 May 2013.
PISA measures socioeconomic background by taking into account economic, social and cultural status.\textsuperscript{52} Across the three tests, the mean score for students from the highest socioeconomic quartile was much higher than the other three quartiles – indeed the schooling gap was between 1 and 3 years.

In relation to reading literacy, ACER provided the following examples of performance from PISA:

- In reading literacy, students in the highest socioeconomic quartile achieved a mean score of 562 points, which was 30 score points higher than the average score of students in the third socioeconomic quartile, 58 score points higher than students in the second socioeconomic quartile, and 91 score points higher than students in the lowest socioeconomic quartile.
- The gap between students in the highest and lowest socioeconomic quartile is equivalent to more than one proficiency level or almost three full years of schooling.\textsuperscript{53}

The results were similar in mathematical literacy where:

- Students in the lowest socioeconomic quartile scored on average 90 score points lower than those students in the highest socioeconomic quartile.
- Twenty-eight per cent of students in the lowest socioeconomic quartile were not achieving Level 2 in mathematical literacy, compared to five per cent of students in the highest socioeconomic quartile. Only six per cent of students in the lowest socioeconomic quartile achieved Level 5 or above, compared with 29 per cent of students in the highest socioeconomic quartile.\textsuperscript{54}

The gap between the highest and the lowest socioeconomic quartiles in Australia was even more pronounced in scientific literacy, ACER reported that:

- In scientific literacy, the gap between students in the highest and lowest socioeconomic quartiles was, on average, 96 score points.
- Twenty-two per cent of students in the lowest socioeconomic quartile were not achieving Level 2 in scientific literacy, compared to four per cent of students in the highest socioeconomic quartile. Only six per cent of students in the lowest socioeconomic quartile achieved Level 5 or above.


\textsuperscript{53} Australian Council for Education Research, \textit{PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009}, p. 13.

\textsuperscript{54} Australian Council for Education Research, \textit{PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009}, p. 13.
above, compared with 28 per cent of students in the highest socioeconomic quartile.\textsuperscript{55}

3.46 A number of submitters and witnesses emphasised the important role that socio-economic background has on educational outcomes and expressed concern that in Australia a student's background is a greater determinant of success than in comparable high performing OECD countries. For example, the Smith Family cited evidence from a 2012 Productivity Commission report that:

\begin{quote}
Australia does not perform as well as comparable countries in giving students equal opportunity to realise their educational potential, irrespective of their background or ability. The resulting educational disadvantage is particularly evident among Australian students who are Indigenous, from low socioeconomic backgrounds, have a disability or other special needs or reside in a rural or remote area.\textsuperscript{56}
\end{quote}

3.47 If this trend is not halted, and if there continues to be great disparity between the performance of Australia's highest and lowest performing students then the consequences for Australia, as well as for each student, are dire. The Smith Family explained that:

\begin{quote}
The individual and collective impact of not addressing this situation is significant. Young people with poor educational outcomes are more likely to experience unemployment and poorer health outcomes, and rely more heavily on income support payments. This creates additional economic and social costs for individuals and the community as a whole.\textsuperscript{57}
\end{quote}

3.48 Research by Professor John Hattie was cited by a number of submitters, including The Smith Family.\textsuperscript{58} Professor Hattie's research concludes that students come to school with a range of factors that will impact how they achieve in the classroom, such as family background, pre-school learning, natural aptitudes and personal attributes. Teachers cannot control these factors, however teachers can have an influence on student learning by providing good or poor quality teaching – and principals and the wider school community can have an influence on what happens at the school more generally.\textsuperscript{59} Professor Hattie observed that students account for about 50 per cent of the 'variance of achievement' and 'teachers account for about 30 per cent of the variance. It is what teachers know, do and care about which is very powerful in this learning equation'.\textsuperscript{60}

\begin{flushleft}
\textsuperscript{55} Australian Council for Education Research, \textit{PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009}, p. 13.
\textsuperscript{57} The Smith Family, \textit{Submission 19}, p. 3.
\textsuperscript{58} See, for example, The Smith Family, \textit{Submission 19}, p. 4.
\textsuperscript{60} Professor John Hattie, 2003 (Cited by The Smith Family, \textit{Submission 19}, p. 40).
\end{flushleft}
3.49 Mr Angelo Gavrielatos, Australian Education Union, submitted that the socioeconomic background of students and a school community constrains the ability of teachers to easily translate successful approaches in one school to another school, because the challenges in a particular school are largely based on the student demographic:

That is not to say we cannot learn from each other in terms of trying to import good practice where it can work. The fact is that our schools face many very different challenges, and those challenges are largely driven or influenced by our student demographic. When the student demographic at a particular school changes, so do the challenges. What we have seen, regrettably, over the course of the last 15 years in Australia is a growing segregation when it comes to student enrolment patterns and, as a result of that, a growing and deepening concentration of disadvantaged kids in disadvantaged schools—largely in public schools…  

3.50 Research conducted by the Smith Family, including the *Making a Difference* project illustrates the impact that poverty can have on children's capacity to participate in the school community. For example, children experiencing poverty have constrained ability to attend sports clubs, arts based programs, excursions and other extra-curricular activities. These are obstacles that cannot be overcome by changes to teacher quality or family expectations. A common response to this study would be that extra-curricular activities are 'add ons' to a good education, and that the primary goal of education should be literacy and mathematical skills. However, the committee was impressed by evidence provided by recent graduates from a Perth selective high school, Mr Anish Badgeri and Mr Jonathan Israel. During the Sydney hearing, Mr Badgeri and Mr Israel highlighted the crucial role that extra-curricular activities play in the educative context, including development of social awareness, a sense of belonging, obligation and connection to a wider community and tolerance.

3.51 Other witnesses argued that quality teaching and the expectations of teachers and parents can overcome low socio-economic indicators. Mr John Fleming from the Haileybury Independent School provided examples where, through targeted teacher training in the explicit instruction method, schools in low socioeconomic areas reported a prompt and significant improvement in NAPLAN results. The examples that Mr Fleming gave during the Melbourne hearing are remarkable, and strongly support his argument that socio-economic background should not determine the success or otherwise of poorer children:

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64 Mr John Fleming, Deputy Principal, Haileybury Independent School, *Proof Committee Hansard*, 4 March 2012, p. 52.
At Ballajura Primary School in Perth, three years ago they were a sea of red in NAPLAN; all their cohorts were underperforming. Three years later, after using explicit instruction, they are a sea of green—one of the highest performing schools in Western Australia. With the state election coming on, both sides of politics are saying, 'We will follow the Ballajura model of explicit instruction'. If we go to South Australia, there is a school I work with in Whyalla called Fisk Street Primary School. Here is some data from them: in 2010, in that year 3 cohort in maths, they had 26 per cent of their kids at national benchmarks. There are a lot of Indigenous kids at the school and it is a very disadvantaged school. Two years later, after using explicit instruction, they had 92 per cent of their kids meeting national benchmarks. So they went from 26 per cent to 92 per cent—no change in the cohort, just a change in the way the curriculum was delivered to those kids. If we look at Queensland, Goondi is a school in Innisfail. It has 600 kids and about 60 per cent of those kids are Indigenous. Over the last three years through explicit instruction they have now got to a stage where in 2012, 12 of their 15 areas that are measured by NAPLAN are now green. Their principal is very confident that 15 out of their 15 areas will be green this year. Now what has changed there? Explicit instruction.65

3.52 The committee heard that the 'explicit instruction' approach to teaching is practiced elsewhere but is called different things:

You will find nuanced terminology for things that mean nearly the same thing. Explicit instruction, focused learning episodes, direct teaching, didactic pedagogy, all mean something similar but not exactly the same. It means the teacher telling the child, 'Here is some specific information. You need to know and understand it', or 'Here is a very specific skill. I'm going to explain it to you, we're going to practise it and you're going to master it.' It is teacher directed, explicit in that term—as I understand it.66

3.53 Dr Kevin Donnelly, Education Standards Institute, agreed that socio-economic background should not be a determinant of success, and described his own upbringing in a housing commission estate as a positive example.67 Dr Donnelly cautioned against a 'victim mentality' that can pervade discussions about the impact of socio-economic background on student achievement:

...I disagree with the victim mentality or the self-fulfilling prophecy that because you grew up in, say, Broadmeadows or Western Sydney, or you are from a non-English speaking background family, or your dad is a labourer or your mum's working pulling coffee that somehow you are not as capable

65 Mr John Fleming, Deputy Principal (Primary), Haileybury, Proof Committee Hansard, 4 March 2013, p. 46.

66 Mr Norm Hart, President, Australian Primary Principals Association, Proof Committee Hansard, 5 March 2013, p. 11.

67 Dr Kevin Donnelly, Director, Education Standards Institute, Proof Committee Hansard, 4 March 2013, p. 28.
as another kid. I would argue you are, and there are a variety of factors that will determine that.  

3.54 Parents of all backgrounds can contribute in a positive way to their child's capacity to learn. Dr Donnelly described how parents can engage their children in learning in the home environment. For example,

[I]f your parents read to you, if they take you to the museum or the galleries…and sit around the dinner table and talk over dinner and engage about current affairs and politics and all the issues that we confront, then all of that is beneficial. I was surprised to read a survey two weeks ago that found 40 or 50 per cent of families eat dinner by the TV. I find that horrendous because what is happening is kids are not engaging in that kind of stimulation, that intellectual stimulation, that comes from eyeballing their parents, talking and discussing, and obviously their parents reading to them. I think the research says if you read to your kids four or five times a week they will start off school ahead of the game.  

3.55 The Smith Family submitted that school-community partnerships are a key way to maximise investment in schools, especially in low SES areas. Schools operating on this model provide extended services before and after school to students and the general community. Services may include additional academic support, youth development, family support and social services. These partnerships encourage families, students and communities to participate in the life of the school and support improved educational outcomes.

3.56 The federal government has funded programs through the National Partnership Agreement on Low Socio-economic School Communities to improve the education outcomes for students from disadvantaged backgrounds. State and territory governments are also implementing a number of initiatives targeting these groups of students, particularly those from non-metropolitan areas and Indigenous students.

3.57 Of particular note are government initiatives targeted at supporting parents to support their children, as these are likely to have the biggest impact. The Home

68 Dr Kevin Donnelly, Director, Education Standards Institute, *Proof Committee Hansard*, 4 March 2013, p. 31.

69 Dr Kevin Donnelly, Director, Education Standards Institute, *Proof Committee Hansard*, 4 March 2013, p. 31.


72 Department of Education, Employment and Workplace Relations, Response to question taken on notice, 5 March 2013 (received 12 April 2013), Q7.

73 See for example, Tina Rosenberg, 'The Power of Talking to Your Baby', *The New York Times*, 10 April 2013. Parents from low socio-economic backgrounds tend to talk to their children less, children whose families were on welfare hearing about 600 words an hour, working-class children 1,200 words and children from professional families heard 2,100 words. Researchers Betty Hart and Todd R Risley concluded that this language exposure explained the difference in student preparedness for school.
Interaction Program for Parents and Youngsters (HIPPY) is a two-year home-based parenting and early childhood program designed to help parents and carers to 'be their child's first teacher'.

Home tutors from the local community work with parents 'to ensure that children start school on an equal footing with their more advantaged peers'.

The HIPPY program commenced in 2008 and is run by the Brotherhood of St Lawrence. The program targets disadvantaged areas with a high proportion of young children. Currently the program is run in 20 locations across Australia, and the government has allocated funding to increase this to 100 by 2015.

An evaluation of the HIPPY program in 2011 found that the program was appropriate and cost-effective, however further work needs to be done to ensure that more Indigenous families are engaged in the program. The effectiveness of the program was measured by a two-year longitudinal study, which compared the outcomes of one group that received HIPPY and one that did not. The results indicated that the goals of HIPPY were being achieved. Relevantly for this inquiry, parents felt more confident raising their child and children liked to read for longer periods of time. The impact on children's preparedness for school is also significant. The report found that:

- The gap observed in HIPPY children’s early numeracy and early literacy skills at the beginning of the program, compared with the Australian norm, had closed by the end of the program.
- HIPPY children had fewer problems with their peers—which is one of the five measures of the child’s socio-emotional adjustment.

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- For parents who completed more of the program rather than less of the program, their child displayed higher levels of pro-social behaviour—a second measure of the child’s socio-emotional adjustment.  

3.60 The evaluation concluded that overall:

The evaluation provides a strong evidence base as to the effectiveness of HIPPY, which sets it apart from most other early childhood parenting programs in Australia. Significant positive impacts were found across a number of important developmental domains and spheres of influence, including the child, the parent, the home learning environment and parents’ social connectedness and inclusion. 

Committee view

3.61 The committee strongly supports the view that all children can succeed at school regardless of socio-economic background. Parents play an important role in supporting children, particularly prior to the commencement of school. Initiatives such as the HIPPY program demonstrate that with support, all parents and guardians can promote reading and literacy during the pre-school years. Initiatives such as the Smith Family's program in Alice Springs also demonstrate the value of parental engagement for older children.

3.62 The committee is impressed by the short-term NAPLAN results achieved by Mr John Fleming in schools with children from low socio-economic backgrounds. A more detailed empirical assessment has not yet been conducted, however the initial evidence supports the arguments that teacher quality has a strong influence on student achievement and that student performance is not dictated by socio-economic background.

Recommendation 3

3.63 The committee recommends that the COAG Standing Council on School Education and Early Childhood Development and the Catholic and Independent school sectors work to ensure continued investment in programs with proven effectiveness that assist parents and guardians to support the education of their child, beginning in early childhood.

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**Rural, remote and regional**

3.64 PISA also reported on the differences in performance of students in metropolitan, provincial and remote schools.\(^{80}\) In reading literacy the gap between students in metropolitan and remote schools is the equivalent of one and half years of schooling. Six per cent of students from remote schools performed at the higher end of the reading literacy proficiency scale. This can be sharply contrasted with 8 per cent of students from provincial schools and 14 per cent from metropolitan schools.\(^{81}\) The gap in mathematical literacy and scientific literacy between students in metropolitan and remote schools is almost 18 months of schooling.\(^{82}\)

3.65 The NAPLAN testing also shows a large disparity between metropolitan students and rural students. In practical terms, 'students in metropolitan schools at the end of year 8 are performing as well on average as kids in country schools halfway through year 10'.\(^{83}\) Mr Duncan Taylor explained the NAPLAN results for New South Wales:

New South Wales NAPLAN testing indicates that in 2011 11 per cent of year 9 metropolitan students failed to reach minimum standards in writing. But in remote schools over 47 per cent failed to reach these standards. In very remote schools over 50 per cent failed. While 5 per cent of year 9 metropolitan students failed to reach minimum standards in numeracy, 24 per cent of remote students failed as did 37 per cent of very remote students. Not surprisingly, these poor outcomes in middle secondary school translate into poor tertiary participation.\(^{84}\)

3.66 Ms Corinda Hollis, a 16 year old student attending Trinity Catholic College (Lismore) described living in a rural area as 'both a blessing and, in some ways, a disadvantage' that had 'created a lot of questions regarding my education'.\(^{85}\) Ms Hollis attended the local Catholic primary school in her home town of Casino, however decided to change to travel further afield for high school:

> Throughout my early education I attended primary school in Casino at the local Catholic school, a reflection of both my parents' and my family's values. In terms of my education, my first real challenge and a major choice for me was looking at where to go for high school. There are a few high

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80 The geographic location of schools was classified using the MCEEOHYA Schools Location Classification.


83 Mr Duncan Taylor, Isolated Children’s Parent’s Association, *Proof Committee Hansard*, 5 March 2013, p. 16.

84 Mr Duncan Taylor, Isolated Children’s Parent’s Association, *Proof Committee Hansard*, 5 March 2013, p. 16.

85 Ms Corinda Hollis, Private Capacity, *Proof Committee Hansard*, 22 February 2013, p. 11. (Appearance facilitated by the Foundation for Young Australians, *Submission 55*).
schools in my local area, but I and my family chose to look further away and to a more regional area and city for both academic purposes and the opportunity to study a creative arts subject, as dance is one of my major passions. It is not so accessible in those rural areas and particularly my area. I discovered that it was quite difficult to leave friends and community behind and to have to adapt to that new community.  

3.67 Ms Hollis was fortunate to have the financial resources and personal resilience to choose a high school further away from home. However, Ms Hollis called for an awareness of the particular challenges faced by rural students when accessing education and the need for all rural students to have:

[T]he same opportunity as people everywhere else to excel in what they do and not have the quality of their education and extension determined by their rural postcodes.  

3.68 Mr Duncan Taylor, Isolated Children's Parent's Association, observed that 'in rural and remote areas, the problem with education is a problem of critical mass'. This manifests in obvious ways, such as the lack of specialist teachers and limited variety of extra-curricular activities, but also, for example, because rural schools tend to be smaller, the administrative burden on teachers is often higher because there is an absence of appropriate administrative staff. This means that it is harder for teachers and principals to focus on learning.

3.69 The critical mass problem can be solved in a number of ways. One idea which has gained traction overseas is the cluster management of schools, to lessen the administrative burden of individual schools.

3.70 The committee heard that many independent and government schools in rural areas work collaboratively to ensure that students can have as many opportunities as possible. Mr Barr, National Chair, Association of Heads of Independent Schools Australia, reported that:

I will give you an example of a school I left after 10 years as principal—Scotch Oakburn College in Launceston. We had three independent schools, in that relatively small regional city. Each student in year 11 or year 12 was allowed to choose a subject at one of the other schools—those independent schools and the state schools as well—in order to increase the subject choice for them. That happens in Hobart, too. My knowledge is more of Tasmania, but I am sure it happens in lots of other ways, too. It also happens in sharing trade possibilities. We also sent students to alternative institutions, one of them being a state college, for VET training and that sort of thing. So yes, there is a lot of sharing. I think you will find across the

86 Ms Corinda Hollis, Private Capacity, Proof Committee Hansard, 22 February 2013, p. 11.
87 Ms Corinda Hollis, Private Capacity, Proof Committee Hansard, 22 February 2013, p. 11.
88 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 17.
89 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 17.
country, particularly in smaller regional and remote areas, that sharing does take place. And it has to take place; you have to be innovative.  

3.71 Schools can also become educational hubs by supporting education in a local town both in early childhood education and distance tertiary education. Mr Taylor provided an example of a community hub in a rural area that also promoted access to tertiary distance education:

There is a school not far from us that I understand is now inviting students who are doing university study to come into the school, to use the technology, to use the video conferencing to access their university tutors, and to avail themselves of teachers who might be able to help them with creating Excel spread-sheets or word-processing assessment tasks and provide that support. What that will do is not only support those students so we have less dropout in tertiary education but also raise the whole expectation in country towns of being able to go on and participate in tertiary education. A lot of the low participation rates in tertiary education are because there is a low expectation that that is actually a realistic pathway for students to take. But if there are tertiary education students at the schools with the high school students, actually using these facilities to participate in tertiary education, that might start to turn around.

3.72 The Isolated Children's Parents' Association of NSW suggests that policy makers should focus on recruiting rural students to teaching because the evidence is that these students are more likely to return and teach in rural areas – even if they attended metropolitan universities. Mr Taylor, called for teaching and learning and innovation to be prioritised in rural and remote areas in Australia. Mr Taylor explained that:

We cannot keep doing the same thing and expect the gap to narrow or for the situation to improve. We have to concede that we have a crisis in educational opportunity and outcome in rural and remote areas, set ourselves targets for improvement and become accountable for making that improvement happen. That will require innovation. That will require translating successful programs for isolated students from other schools within Australia and internationally and multiplying those programs across our own schools. That will require collaboration rather than competition in our rural schooling sector.

90 Mr Barr, National Chair, Association of Heads of Independent Schools Australia, Proof Committee Hansard, 5 March 2012, p. 34.
91 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 17.
92 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, pp 17–18.
93 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 16.
94 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 16.
Committee view

3.73 To reiterate the view expressed by Ms Hollis earlier in this section, rural students must not be disadvantaged because of their rural postcode. Australian governments at all levels must work to support rural teachers, principals and communities to provide the best education to rural students. The committee notes the evidence provided earlier in this chapter that rural and remote schools often struggle to recruit qualified maths and science teachers. It is crucial that appropriate incentives are in place to encourage teachers to work in hard-to-staff positions across Australia, including those in remote and rural locations.95

Recommendation 4

3.74 The committee recommends that the COAG Standing Council on School Education and Early Childhood, and the Catholic and Independent school sectors, urgently work to identify measures to close the gap between educational outcomes for rural and remote students and metropolitan students. Funding measures may be required to ensure that each student is given every opportunity to thrive and reach their full potential.

Recommendation 5

3.75 The committee recommends that the COAG Standing Council on School Education and Early Childhood, and the Catholic and Independent school sectors review the current incentives arrangements for hard-to-staff positions in metropolitan, regional, remote and rural schools, to ensure that these are appropriate.

Immigrant status and language background

3.76 Immigrant status and language background did not have a significant impact on attainment in the reading literacy test. ACER reported that:

- No significant differences were found between the average reading literacy scores of Australian-born and foreign-born students.

- No significant differences between the average reading performances of students who spoke English as their main language at home compared to those students whose main language at home was a language other than English.

- There were 12 per cent of Australian-born students, 16 per cent of first-generation students and 14 per cent of foreign-born students who achieved the higher levels in reading literacy.

95 As recommended by the Productivity Commissioner: Productivity Research Report, Schools Workforce, April 2012, p. 117. (See pp 111-113 for examples of current incentives already in place in the states and territories).
• 14 per cent of Australian born students, 11 per cent of first-generation students and 15 per cent of foreign-born students failed to reach the satisfactory level in reading literacy.96

3.77 First generation and foreign born students performed well in mathematical literacy. ACER reported that Australian born students attained a mean score significantly lower than the average score attained by first-generation students. ACES advised that there were no significant differences between the average scores of Australian-born and foreign-born students, nor between the scores of first-generation and foreign-born students. There were no significant differences found in the average mathematical literacy performance of students who spoke English as their main language at home compared to those students whose main language at home was a language other than English.97

3.78 In scientific literacy, Australian-born students attained a mean score that was significantly lower than first-generation students and similar to the mean score for foreign born students. On average, students who spoke English at home scored significantly higher in scientific literacy (532 score points) than did students who spoke a language other than English (512 score points).98

3.79 The evidence indicates that foreign born and first generation Australian students are generally well served by the education policies. However, this data is represented in terms of means, medians and averages. The experience of some students who have moved to Australia from overseas can be very challenging. During the Sydney hearing Mr Habib Mohammadi, a public High School student, told the committee about the particular difficulties he faced when he first enrolled in an Australian school:

I came from Pakistan about five years ago, but I was born in Afghanistan. I never went to school in Pakistan or Afghanistan. I was raised in Pakistan. When I came here, the education was totally different for me to study. I did not know how to speak English, read, write or talk with others. I went to a language school and went to primary school in the first year, which did not help me a lot. Then I moved to Cranbourne Secondary College and started year 7. I still did not know how to read or write, but I was lucky enough that I had good teachers helping me out through the year and I learned a lot in that year.

The first year of my secondary school was really bad due to a lot of discrimination, racism and bullying against my culture and me which I experienced. I started playing footy. That was the same thing as the first two years. I was getting a lot of discrimination on the ground, getting told


off and getting told to go back to my country, which was really sad. I thought the difference in the first two years was that I could not find the difference between my country, Pakistan and here. There was no difference. It was basically the same thing. I was not feeling safe at school.99

3.80 Mr Mohammadi explained that in Year 9 he decided to take action and started working with the City of Casey youth community workers with whom he set up a program called Multi-Pride to support students from different cultures, particularly to address racism and bullying. Together the students 'try to solve the problems and help others to feel safe and learn more'.100 Mr Mohammadi shared that student outcomes in the Afghan migrant community are improving, and he links this to a decrease in bullying:

In my last few years at school, everyone in the Afghan community was getting a score of 50 or 60. Last year a student got 98, and it was the top student in the Afghan community. One of the reasons was that it was a safe environment for him. There was no bullying or racism going on. He was just focusing on his study rather than having conflict with other persons saying your culture is this or that.101

3.81 Mr Mohammadi explained that he is committed to school, and grateful to the teachers who stayed back late to tutor him in English. However, he would like more time each week to be spent studying the English language:

We only do four periods a week. It does not help me a lot, but it does help in some places. We need more of that. I do outdoor education, which is basically about working in the environment. Some of the words used in that subject are really challenging for me. And there is psychology as well, which I had never heard of in my country, which I did in year 10. Some of the words used are challenging, so what I want from the government is more time for people to learn vocabulary and for teachers to help students if they need it.102

3.82 It is not surprising that student educational outcomes improve when school is a safe place and appropriate social supports are in place. The committee trusts that any changes to school funding, currently the subject of negotiation between the states and territories with the Commonwealth, will take into account the particular needs of students from non-English speaking backgrounds.

Other factors that influence student achievement

3.83 In addition to socio-economic status, cultural background and geographic location there are other factors that influence achievement. The most significant of these are teacher and parental expectations, and effective behavioural management.

99 Mr Habib Mohammadi, Private Capacity, *Proof Committee Hansard*, 22 February 2013, pp 12–13 (Appearance facilitated by the Foundation for Young Australians, Submission 55).
**Behavioural issues**

3.84 Many teachers are concerned about student behaviour and classroom management, although opinions were mixed as to the cause of poor behaviour.

3.85 The committee received evidence *in camera* from a teacher that student behaviour is the 'major contributor to a child's learning' and that students who are well behaved have better learning outcomes. The committee was told that:

> [W]ell-behaved children learn a great deal better and a great deal more than poorly behaved children. It should not be the teacher's responsibility to fix this...I find there is relatively little focus on supporting teachers with student behavioural issues, which teachers themselves should not need to manage. As professionals, we could do with greater responsibility from government to put in place sufficient deterrents to ensure that a more civil environment for every child can be obtained in every single school in this country. We have an educational crisis and the solution is not to put greater pressure on teachers but to release them from added burdens.\(^{103}\)

3.86 The confidential witness told the committee that teachers 'are in no way resourced and never will be properly skilled' to deal with the excesses of student behaviour and this behaviour is 'a constant, disruptive and wasteful input into a classroom'. One example of poor behaviour was particularly concerning. The witness advised the committee that once he had dealt with the behaviour, he then needed to console and calm down the remaining students. The emotional impact on the well behaved students constrains their ability to learn long after the problematic student has left the classroom. The committee heard that a good principal will support teachers, have autonomy and a sense of what it is really like in the classroom. Poor student behaviour is exacerbated when teachers are not supported by the school principal to manage student behaviour.

3.87 Mr Christopher Watt, Independent Education Union of Australia, acknowledged that there are no simple answers. However, he suggested that many behavioural problems stem from poor literacy and numeracy and could be prevented through early intervention:

> My view is that if we put more appropriately targeted resources into those early years to make sure that every child is able to read and write and do basic numeracy then some of the issues that I have encountered as a secondary teacher would be mitigated. When they are in year 8 or year 9 they have become totally disconnected from their learning. They have not been able to do much learning for the previous five or six years because they did not learn to read well in the early years because there was no reading support or reading recovery teachers provided. If we did that, those would be engaged in learning because they can learn. I think some of the

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103 Confidential Witness, 5 March 2012, Canberra.
disconnect in terms of kids in the classroom is because they missed out along the way and it was not addressed.\textsuperscript{104}

3.88 Mr Barr, National Chair, Association of Heads of Independent Schools Australia, suggested that behavioural issues can have a number of causes, some of which rest with the teacher. For example, it is important to consider whether the teacher is engaging and able to properly engage students in the subject matter, and that the learning style is 'appropriate to the culture and context of a particular school'.\textsuperscript{105}

3.89 Mr Watt submitted that quality teaching practice and proper resourcing within classrooms can address challenging behaviour. Mr Watt explained that:

I think teachers by and large have recognised that the old models of teaching do not work and did not work for a range of kids. Teachers have been retraining themselves and there are quite different approaches going on in classrooms now to ensure that teachers are better engaged. But teachers need continued assistance with that because, as we know, it is quite an aged workforce. Many of them started on average over 20 years ago when some of the child centred project learning work was not understood, was not taught in pre-teacher training and certainly was not developed in their early years. So I think there is work that can still be done with the profession.

Another element goes to the basic resourcing within classrooms, with respect to those students' behaviours. Sometimes they are behaviours that relate to the child themselves, rather than the learning environment, so we need resources around that. There is significant work underway in terms of students with a disability, and some additional resources are being put in there—and new standards and what have you. I do not want to confuse that work with these students who have particular behavioural needs, but we need a similar body of work around these kids to assess what their needs are.\textsuperscript{106}

3.90 Parents and caregivers also need to take responsibility for ensuring that students are aware of what behaviour is appropriate at school. Unfortunately this does not always happen, the Independent Education Union of Australia reported that:

We have had members—and I have seen it in my own teaching—who, when they challenge a child's behaviour and say, 'You wouldn't do that at home', they are told, 'Yes, I do' or 'Yes, I can'. And if you ask the parents to be engaged with some of that, they are not interested—they just say, 'That's the school's issue; they're your responsibility while they're at school—you deal with it'. I think that has been a significant shift in the way the expectations placed on schools have moved. It is manifest in a range of

\begin{footnotesize}
\textsuperscript{104} Mr Christopher Watt, Independent Education Union of Australia, \textit{Proof Committee Hansard}, 5 March 2013, p. 6.

\textsuperscript{105} Mr Barr, National Chair, Association of Heads of Independent Schools Australia, \textit{Proof Committee Hansard}, 5 March 2012, p. 35.

\textsuperscript{106} Mr Christopher Watt, Independent Education Union of Australia, \textit{Proof Committee Hansard}, 5 March 2013, p. 6.
\end{footnotesize}
other things, for example all of the additional curricula requirements, whether it is bike education, driver education, drug education, stranger danger—all of which are important and good things, but more and more things seem to be put onto schools that historically have been the domain of the broader community.  

3.91 Mr Taylor observed that the current policy of encouraging students to remain in schooling until the end of year 12 has resulted in some lost opportunities for many students and contributed to some behavioural problems:

The government has made schooling go now to later years. It is more difficult to leave school early. We are finding out in rural and remote schools that that is possibly a retrograde step, because students that would previously have left school and gone into a vocation or a trade, or just left school anyway, are now staying at school, and often the behavioural problems that result from that are making it difficult for the students who want to stay at school and continue to study. So I think lengthening the years that people stay at school has increased behavioural problems, and I think it is incumbent on the community or on the schooling sector to provide those kids with something useful to do while they are at school if they are students who would otherwise have left. It is no good regulating to make these students stay at school but not changing curriculums and the capacity to cater for them. The growth in vocational education in schools has been one thing that has assisted to keep these students engaged, but I still think it is a terrible problem.  

3.92 It is important that students who are 'good with their hands' and not academically minded are provided with opportunities to achieve their potential outside of the school environment. Failure to provide such opportunities can result in disruptive behaviour.

Committee view

3.93 Classroom management is a complex task that teachers, principals and parents need to support each other to achieve. Schools need to be safe and rewarding places to learn and work. Students must also be encouraged to take personal responsibility for their learning.

Recommendation 6

3.94 The committee recommends that the Australian Institute for Teaching and School Leadership ensure that university teaching programs provide appropriate practical and theoretical training to pre-service teachers in effective behavioural management.


109 Dr Kevin Donnelly, Director, Education Standards Institute, *Proof Committee Hansard*, 4 March 2013, p. 32.
Recommendation 7

3.95 The committee recommends that the COAG Standing Council on School Education and Early Childhood, and the Catholic and Independent school sectors, consider initiatives to better support teachers and principals to effectively manage behaviour in Australian schools.

Expectations

3.96 An often overlooked factor that has a significant impact on student achievement is parent and teacher expectations of students. Children from disadvantaged backgrounds can, and should, perform well at school.

3.97 The importance of expectations was studied in the TIMMS and PIRLS questionaries, with interesting results. Those students performed better on the tests had parents who expected they would complete a university degree:

Parents’ aspirations for their children have been found to strongly predict a student’s own educational aspirations, and in turn these strongly predict student achievement. Results from the Home questionnaire provided evidence for a relationship between parents’ aspirations for their 10-year-old child and student achievement. Students whose parents expected that they would complete at least a university degree significantly and substantially (44 points in reading, 47 points in mathematics, 48 points in science) outperformed students whose parents expected their child to complete a TAFE qualification or similar (post-secondary but not university), as well as those whose parents did not expect them to complete anything past secondary education.\(^{110}\)

3.98 The key reason outside the classroom that students from a disadvantaged background are more likely to perform poorly is low expectations. Professor John Hattie's research found that parental expectations had the largest impact on student outcomes (in terms of factors that originate with parents). This had a bigger impact on student performance than other factors such as parental communication with the school or having a quiet place to study.\(^{111}\)

3.99 Dr Kevin Donnelly submitted that the expectations of teachers are just as important as the expectations of parents, and we should not accept that children with low SES backgrounds will perform poorly. During the Melbourne hearing Dr Donnelly submitted that 'Parenting is important but I would still argue good teachers with an effective curriculum should be able to pick up kids who do not always have that benefit.'\(^{112}\) Dr Donnelly praised the student results obtained by

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110 Australian Council for Education Research, *PISA in brief: Highlights from the full Australian Report – Challenges for Australian Education: Results from PISA 2009*, p. 33.


112 Dr Kevin Donnelly, Director, Education Standards Institute, *Proof Committee Hansard*, 4 March 2013, p. 31.
Mr John Fleming, discussed earlier. Prior to working at Haileybury Mr Fleming worked as a principal at a school that was:

..very low SES, very working-class, very migrant, but he had excellent results in NAPLAN and his argument was 'No excuses; set the bar high, make the teachers work hard, make the kids work hard.' Give them a good quality curriculum and you can achieve things.113

3.100 Professor Field Rickards, Dean of Education, University of Melbourne, told the committee that it is challenging for some parents to have high expectations for their children when they themselves have not completed high school, however teachers can overcome this:

What teachers have to have is the highest expectations for every child; and one of the dangers of concentrations of children and students who come out of families where many of them have probably not gone past year 9 or 10 in education is that the expectations for these students are low. That is something we have to change. I have seen some shocking examples of that—where because there has been a high Indigenous population, 'Well, they won't learn anything,' and, of course, they do not.114

3.101 Professor Rickards discussed a study into the learning outcomes for children with hearing loss. The study found that the most important factor for those children with appropriate levels of literacy was expectations, and those children who had teachers and parents with high expectations had the best outcomes.115 This example can be applied to teaching generally.

Committee view

3.102 The evidence clearly indicates that alongside teachers, parents and guardians play a critically role important in their children's education.

Recommendation 8

3.103 The committee recommends that the COAG Standing Council on School Education and Early Childhood work with the Catholic and Independent School sectors to further develop programs to ensure that parents and guardians have the highest expectations for each child, regardless of socio economic status.

Students with a disability

3.104 Children with a Disability Australia (CDA) reports that 'on every measure students with disability are performing more poorly than their peers in Australian schools'.116 CDA provided the following evidence to support this observation:

113 Dr Kevin Donnelly, Director, Education Standards Institute, Proof Committee Hansard, 4 March 2013, p. 31.
114 Professor Field Rickards, Dean of Education, University of Melbourne, Proof Committee Hansard, 4 March 2013, p. 14.
115 Professor Field Rickards, Dean of Education, University of Melbourne, Proof Committee Hansard, 4 March 2013, p. 14.
116 Children with Disability Australia, Submission 23, p. 4.
• 63 per cent of school children with disability experienced difficulty fitting in at school;

• 29.6 per cent of people aged 15 to 64 years with reported disability had completed Year 12 compared to 49.3 per cent of people without a disability;

• 12.7 per cent of people with a disability had completed a bachelor degree or higher compared to 19.7 per cent of people without a disability; and

• Around 15% of Australian students require additional assistance but only 5% receive funded supports.\(^\text{117}\)

3.105 The Australian Education Union (AEU) reports that 78 per cent of students with a disability are concentrated in public schools.\(^\text{118}\) While targeted funding is provided for students in public schools, the AEU advised that the increased funding has 'not been sufficient' to meet the needs of an increasing number of students.\(^\text{119}\)

3.106 CDA reported that the Catholic and independent sectors also enrol students with a disability and particularly struggle to access adequate funding supports for students and often rely on donations from parents, Medicare and internal funds.\(^\text{120}\) For example, the Australian Council of Jewish Schools reported that it receives minimal funding from the government for 'a significant number of students who suffer intellectual and/or physical disabilities'.\(^\text{121}\) On average, four per cent of its student population has a disability, with one school having a disability rate of 15 per cent.\(^\text{122}\)

3.107 The CDA submission provides a number of examples where governments, teachers, schools and communities have failed to provide appropriate support to children with disability. At times, where funding is unavailable, schools have only allowed the child to attend part-time or even for just an hour a day. These problems are exacerbated because of an increase in the number of children with disability. For example, demand for the NSW Government program that supports students with disability has increased by 144 per cent in the past decade.\(^\text{123}\) At the beginning of the decade, 2.7 per cent of enrolled students received funding from the NSW government due to disability, in 2012 this had increased to 6.7 per cent of students.\(^\text{124}\)

\(^{117}\) Children with Disability Australia, Submission 23, p. 5. (Footnotes in original submission)

\(^{118}\) Australian Education Union, Submission 16, p. 2.

\(^{119}\) Australian Education Union, Submission 16, p. 17.

\(^{120}\) Children with Disability Australia, Submission 23, p. 9.

\(^{121}\) Australian Council of Jewish Schools, Submission 34, p. 1.

\(^{122}\) Australian Council of Jewish Schools, Submission 34, p. 1.


\(^{124}\) Australian Education Union, Submission 16, p. 17.
3.108 The increasing number of students with a disability places more pressure on teachers. However, the majority of teachers do not hold special education qualifications. A South Australian study reported that only 4.4 per cent of teachers in that state held the relevant qualifications.\textsuperscript{125} The AEU agreed that teachers are often not well prepared to teach students with disabilities, and this will have an impact not only on the student with a disability but also the other students in the class.\textsuperscript{126}

3.109 Teaching competencies, including teaching students with a disability, are articulated in the National Professional Standards for Teachers. CDA calls for 'a major investment in professional training' to ensure that these standards are met (and exceeded).\textsuperscript{127}

3.110 The CDA acknowledges that a number of the concerns outlined in its submission are 'beginning to be addressed' by a number of current initiatives. These include:

- More Support for Students with Disabilities National Partnerships (aimed at capacity building in all education systems);
- Nationally Consistent Data Collection (COAG initiative to address the inconsistent definitions of disability in school systems and collecting data to assist with the new funding system for schools); and
- The National Curriculum (work by ACARA to develop materials for students with a disability within the National Curriculum).

\textit{Committee view}

3.111 The committee supports CDA's vision that one day:

\begin{quote}
[C]hildren and young people with disability living in Australia are afforded every opportunity to thrive, achieve their potential and that their rights and interests as individuals, members of a family and their community are met.\textsuperscript{128}
\end{quote}

3.112 The presence of special needs will often impact upon a student's ability to perform well at school, however supports must be in place to ensure that each student can learn to the best of their ability. Expectations of parents and teachers are important. Students also need infrastructure and specialist support. The committee is aware of the current federal and COAG initiatives to students with a disability, and hopes that the outcomes of these programs will benefit students in government, Catholic and independent schools. The National Disability Insurance Scheme will provide further support to children with disabilities, once the program is rolled out. In the short-term, any discussion about increases to school funding needs to focus on

\begin{flushleft}
\textsuperscript{125} Children with Disability Australia, Submission 23, p. 9. \\
\textsuperscript{126} Australian Education Union, Submission 16, p. 16. \\
\textsuperscript{127} Children with Disability Australia, Submission 23, p. 9. \\
\textsuperscript{128} Children with Disability Australia, Submission 23, p. 1.
\end{flushleft}
supporting the particular needs of students with disability to ensure that a 'learning/education service' not just a 'disability service' is provided to students.  

Recommendation 9

3.113 The committee recommends that Commonwealth Government work with state and territory governments and the Catholic and Independent school sectors to ensure that adequate funding for support is provided to all students with a disability, to ensure that each student with a disability is given every opportunity to thrive and reach their potential in a safe and appropriate environment.

School autonomy

3.114 The committee is aware that a number of states and territories have been trialling programs to provide public schools with greater autonomy. The degree of autonomy varies between states. The Western Australian Government's Independent Public Schools initiative gives schools greater flexibility to respond to the needs of their local community; principals can recruit staff and control the school's budget. The Queensland Government also recently announced the expansion of their Independent Schools program. Victoria has a 'decentralised system where principals have a high degree of autonomy'.

3.115 Submitters and witness had mixed attitudes to the issue of autonomy. Ms Catto, Western Australian Council of State School Organisations, pointed out that principals who have control over recruiting staff also then have an increased administrative workload. There is also a 'smaller pool' of teachers for the non-independent public schools. Mr Scott, CEO and Principal, Haileybury Independent School said that 'principal autonomy', the ability to oversee teacher performance and control recruitment that makes independent schools successful in Australia.

129 Children with Disability Australia, Submission 23, p. 8.
132 Victorian Department of Education and Early Childhood Development, Submission 43, Attachment 1, p. 3.
133 Ms Kylie Catto, President, Western Australian Council of State School Organisations Inc, Proof Committee Hansard, 22 February 2013, p. 42.
134 Mr Derek Scott, CEO and Principal, Haileybury, Proof Committee Hansard, 4 March 2013, p. 46.
need to be in the context of the whole school, rather than simply the 'position of the principal' being autonomous.\textsuperscript{135}

3.116 Mr Geoff Metcalf, former principal of an independent school in Western Australia, praised the independent school model, crediting it with an increase in 'the level of aspirations of the school and the community'. In a 2011 speech Mr Metcalf explained that as a result of becoming an independent school, Roseworth Primary School has:

\begin{quote}
[E]mbraced the opportunity to develop a culture of self-belief and self-worth. Anyone who visits the school is inspired by the way in which the community has engaged with the school and demonstrates such a strong sense of pride. Independent Public School status recognised that Roseworth had the potential and capacity to take a greater level of leadership in its own affairs and the school community has responded in kind. There is an element of self-fulfilling prophecy about IPS [Independent Public Schools] for a school like Roseworth. The school community feels that they are entrusted to make decisions and to know the decisions made are in the school’s best interest. Raising the aspirations of the community has been an empowering journey and has embedded a sense of community ownership.\textsuperscript{F6}
\end{quote}

3.117 The benefits described by Mr Metcalf are to be praised, particularly given earlier discussion in this chapter about the value of teacher and parent expectations for children. However, it is unclear whether school autonomy ultimately improves student outcomes.\textsuperscript{137} Ms Catto, Western Australian Council of State School Organisations, described how there has yet to be a thorough analysis of the Western Australian program:

\begin{quote}
Our concern is that we are some years into the program and are yet to see a comprehensive review that demonstrates that the primary achievement or result of this is an improvement in student outcome. That has to be the primary benefit because schools are about education. If that is not being achieved then we would have to question the rapid rollout of almost a third of our public schools becoming independent public schools.\textsuperscript{138}
\end{quote}

3.118 Clearly further research into school autonomy and its impact on student performance is required.

\begin{footnotes}
\item Mr Norm Hart, President, Australian Primary Principals Association, \textit{Proof Committee Hansard}, 5 March 2013, p. 8.
\item Save Our Schools, Submission 52, p. 22.
\item Ms Kylie Catto, President, Western Australian Council of State School Organisations Inc, \textit{Proof Committee Hansard}, 22 February 2013, p. 42.
\end{footnotes}
Recommendation 10

3.119 The committee recommends that the COAG Standing Council on School Education and Early Childhood conduct research into whether public schools participating in school autonomy programs have improved student results.

Access to technology

3.120 Technology can be a useful tool in classrooms, particularly when it works and adequate technical support is provided. However, witnesses submitted that what is important is that teachers know how to use the technology for teaching and learning, and that 'good teaching needs to underlie…technological possibilities'.

3.121 Dr Kevin Donnelly, Director, Education Standards Institute reported research indicating that computers and technology were not the primary determinant of how well particular countries did in the OECD PISA tests. Indeed, the 'researchers suggested…that an overreliance on technology can be counterproductive and that there can be unintended consequences'.

3.122 Mr Anish Badgeri, a recent graduate of Perth Modern School, acknowledged that access to technology can be good 'in terms of enriching our educational experience', however he 'did not feel that they were that essential towards the final outcome in year 12'. Mr Jonathan Israel preferred tablets to laptops, submitting that:

You would move into a class, you would take out the laptop and productivity would decline dramatically...You just do not have the attention of the students so much. In my experience tablets and iPads are better than laptops. With the full-time use of laptops in every single class, I believe that people lose attention and the ability to write—quite literally. Handwriting got progressively worse. Mine was awful. Mine is still awful. I think they can be a very, very good tool but the attitude needs to be there and they cannot be taken out in every class.

3.123 The continued spread of technology can be a helpful resource for teachers and students in rural areas. For example, in western New South Wales a class of gifted and talented students in remote and rural areas do accelerated lessons in maths, English and science lessons together as a class through videoconferencing. This program enables students to study at a high level that would not others be able to access these advanced programs because of a lack of critical mass in their own schools.

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139 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 18.
140 Dr Kevin Donnelly, Director, Education Standards Institute, Proof Committee Hansard, 4 March 2013, p. 29.
141 Mr Anish Badgeri, Private Capacity, Proof Committee Hansard, 22 February 2013, p. 13.
143 Mr Duncan Taylor, Isolated Children's Parent's Association, Proof Committee Hansard, 5 March 2013, p. 21.
Mr Christopher Watt, Federal Secretary, Independent Education Union of Australia, described the challenges faced by schools when technology fails to work:

Whilst equipment has become more portable and robust, in most schools where I talk to teachers the fact is that from time to time the stuff just does not work. Maybe things are different here, but I know that in my office on a regular basis the IT does not work, for whatever reason—the net goes down or the printer does not work. In a school, which is a fairly large organism, whose responsibility is it? Who is resourced to make sure that the server is working? If the internet is down, how and why is it down? Teachers want to access it and they have got lesson plans based on doing something on Google maps, for instance, on that day and you cannot get the internet—and the printer does not work and the electronic whiteboard is not working. There is a whole raft of high quality IT going on, but not necessarily the support structures to assure that it keeps going. So that is one element of stress in terms of resourcing.144

Technologies, including high speed broadband, have the capacity to enhance student learning when utilised by quality teachers to achieve educational outcomes. These benefits will be experienced particularly by students in rural and remote locations.

Conclusion

Australian students are performing well when measured against students overseas, particularly on the sophisticated OECD PISA tests.145 Australia is maintaining its high standard – however there has been little improvement.

The evidence presented to the committee and outlined in this chapter leads to the inevitable conclusion that Australian education policies – at both a federal and local level – are failing the lowest performing students in Australia, and, these students are predominantly from disadvantage backgrounds. The committee has made particular recommendations to address these weaknesses.

Within the school, teachers, principals, support staff and infrastructure all have an impact on student performance. These factors are more easily managed by governments, provided that sufficient resources are available and strategic policies are implemented.

Parents and caregivers play a very important role in each child’s education, particularly in the years prior to commencing school. It is critical that all parents believe that their child will do their best at school, experience success and move onto trade training or university. Schools must work to assist parents in this important role, and government programs should be expanded to support parents to support their children.

144 Mr Christopher Watt, Federal Secretary, Independent Education Union of Australia, *Proof Committee Hansard*, 5 March 2012, p. 5.

145 The committee has given more weight to Australia's performance in tests that examine creativity and problem solving and not just rote learning, such as OECD PISA.
3.130 Teachers and parents also need to support those students who elect to undertake trades training rather than complete Year 12. Trades training can provide useful skills to assist young people to join the workforce and make a positive contribution to the community. For some students, early access to trades training will be much more beneficial than pursuing Year 12 academic studies. Government policies need to reflect this reality.

3.131 High teacher and parent expectations of children can be undone by poor behavioural management practices and poor student behaviour. Teachers must receive appropriate training to ensure they are equipped to effectively manage student behaviour, and teachers need to feel supported by the principal and the relevant authorities. Parents and students must also respect the important role that teachers have in teaching and learning.

3.132 While some targeted programs will be required, and have been recommended in this chapter, the answer is not simply to spend more money. The remaining two chapters examine how strategic approaches to improving teacher quality can contribute to improved educational outcomes for Australian students.