



Report on the fourth cycle of the National Assessment Program Progress in International Reading Literacy Study (PIRLS) 2016

Background

The Progress in International Reading Literacy Study (PIRLS) assesses Year 4 students in Reading to provide information about trends in performance overtime. PIRLS provides comparative information about educational achievement across countries to assist in improving the teaching and learning of Reading.

PIRLS has been conducted internationally every five years since 2001, with Australia participating for the first time in 2011. In Australia the fourth cycle of PIRLS was conducted in October and November 2015. Internationally, 50 countries and 11 benchmarking entities participated in PIRLS. In Australia 286 primary schools (Western Australia – 39 schools) participated, providing a nationally representative sample of 6341 students (Western Australia – 884 students).

PIRLS has a curriculum focus, attempting to assess *'what students know'*, whereas PISA, the other major international reading testing program, seeks to assess *'what students can do with their knowledge'*

Results are reported as average scores, as distributions of scores, and as percentages of students who attain the international benchmarks (Advanced, High, Intermediate, Low and Below Low) for countries and specific groups of students within Australia. The Intermediate international benchmark is considered to be the Australian proficient standard.

Report on the fourth cycle of the National Assessment Program. Progress in International Reading Literacy Study (PIRLS) 2016

Key test findings

International results:

- Students in the Russian Federation performed better, on average, than students in all other participating countries, apart from those in Singapore. Students in Singapore, in turn, performed better in reading than students in all other countries, apart from Hong Kong.
- Australia's average reading score of 544 was significantly higher than the scores of 24 other countries, including France and French-speaking Belgium, New Zealand, Trinidad and Tobago and Malta (the latter three countries tested in English).
- Australia's average score was lower than the average scores for 13 other countries, including Singapore, Hong Kong, Ireland, Northern Ireland and England (who all tested in English), as well as other top-performing countries Finland and Poland.

Australia's results:

- Australia recorded a significant improvement in the average reading score of around 20 points between PIRLS 2011 and 2016.
- Nationally from 2011 to 2016 an increase in the proportion of students at or above the Australian proficient standard was recorded (76 per cent to 81 per cent), however the percentage of students failing to reach the low international benchmark has remained unchanged.

Western Australia's results:

- Across jurisdictions Western Australia has shown the greatest significant improvement in average score from PIRLS 2011 to 2016.
- Western Australia reported a decrease in the proportion of students performing below the Low benchmark (10per cent in 2011 to 6per cent in 2016) and the percentage of students performing at or above the proficient standard increased from 71 per cent in 2011 to 81 per cent in 2016.
- Across jurisdictions the average reading score for Western Australia was third highest and equal to the Australian mean in 2016 in comparison to sixth and below the Australian mean in 2011.

Background factors:

With the exception of gender, the sample size was too small to disaggregate the data at the state and territory level by background factors.

Gender:

- In almost every country, nationally and in Western Australia the average reading score were significantly higher for female students than male students.
- Nationally 85 per cent of females reach the Australian proficient standard compared to 77 per cent of male students
- In Western Australia there was a gender difference at the Advanced benchmark with 9 per cent more females than males at this level.

Performance of Indigenous students:

- Nationally Indigenous students attained an average score 67 points lower than the average score for non-Indigenous students. There was no significant change in the average reading score for Indigenous student between 2011 and 2016.

Language background:

- Students who primarily spoke English at home scored a statistically significant 15 points higher, on average, than students who spoke a language other than English at home.

Location:

- Eighteen per cent of students in metropolitan schools, compared with 22 per cent of students in provincial schools and 30 per cent of those in remote schools, did not achieve the Intermediate benchmark.

Appendix 1

Additional information – PIRLS 2016

The Progress in International Reading Literacy Study (PIRLS) assesses Year 4 students in Reading to provide information about trends in performance overtime. Year 4 is seen as a transition point between learning *how* to read and reading *in order* to learn. PIRLS provides comparative information about educational achievement across countries to assist in improving the teaching and learning of Reading.

PIRLS has been conducted internationally every five years since 2001, with Australia participating for the first time in 2011. In Australia the fourth cycle of PIRLS was conducted in October and November 2015. Internationally, 50 countries and 11 benchmarking entities participated in PIRLS. In Australia 286 primary schools (Western Australia – 39 schools) participated, providing a nationally representative sample of 6341 students (Western Australia – 884 students). In each sampled school a single class was selected at random to participate. In schools with composite classes, more than one class was selected, but only the Year 4 students participated.

PIRLS has a curriculum focus, attempting to assess '*what students know*', whereas PISA, the other major international reading testing program, seeks to assess '*what students can do with their knowledge*'

Students completed a PIRLS booklet, which contained two short texts (either two literary texts, two informational texts or one of each) and their associated questions. In total, 12 texts were used in the PIRLS 2016 assessment, which included six texts used in PIRLS 2011. These texts and their associated test questions were combined to create 16 different PIRLS booklets, each containing multiple-choice and constructed response items. The booklets were evenly distributed within each participating class, thus, only one or two students in each class completed a particular PIRLS booklet.

After completing their PIRLS reading assessment, students were asked to complete a background questionnaire, which sought information on home contexts, and on their characteristics and attitudes towards learning and reading.

Teachers, principals and curriculum experts also completed questionnaires, which enabled collection of information about the various contexts of teaching and learning reading.

Results are reported as average scores with the standard error, as distributions of scores, and as percentages of students who attain the international benchmarks (Advanced, High, Intermediate, Low and Below Low) for countries and specific groups of students within Australia. The Intermediate international benchmark is considered to be the Australian proficient standard.

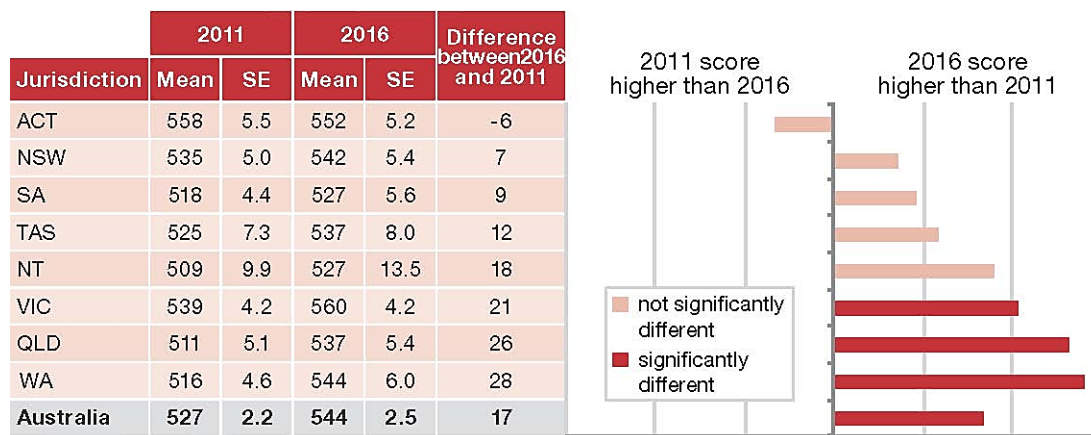
Means

Australia's average score was significantly higher than the scores of 24 other countries, including France and French-speaking Belgium, as well as New Zealand, Trinidad and Tobago, and Malta, which tested in English. Australia's average score was lower than the average scores for 13 other countries, including Singapore, Hong Kong, Ireland, Northern Ireland and England (which all tested in English), as well as other top-performing countries the Russian Federation, Finland and Poland.

The average score for students in Western Australia was significantly higher than students in South Australia and significantly lower than students in Victoria. It is worth noting that the average age of the Western Australian students was 9.9 years compared to 10.4 years in Tasmania and 10.2 years in Victoria.

State and Territory trends by mean score

Between 2011 and 2016, there has been a significant improvement in three of the eight jurisdictions. Western Australia showed the greatest improvement of 28 points, followed by Queensland (26 points) and Victoria (21 points). There was no significant change in average scores between 2011 and 2016 in the remaining jurisdictions.

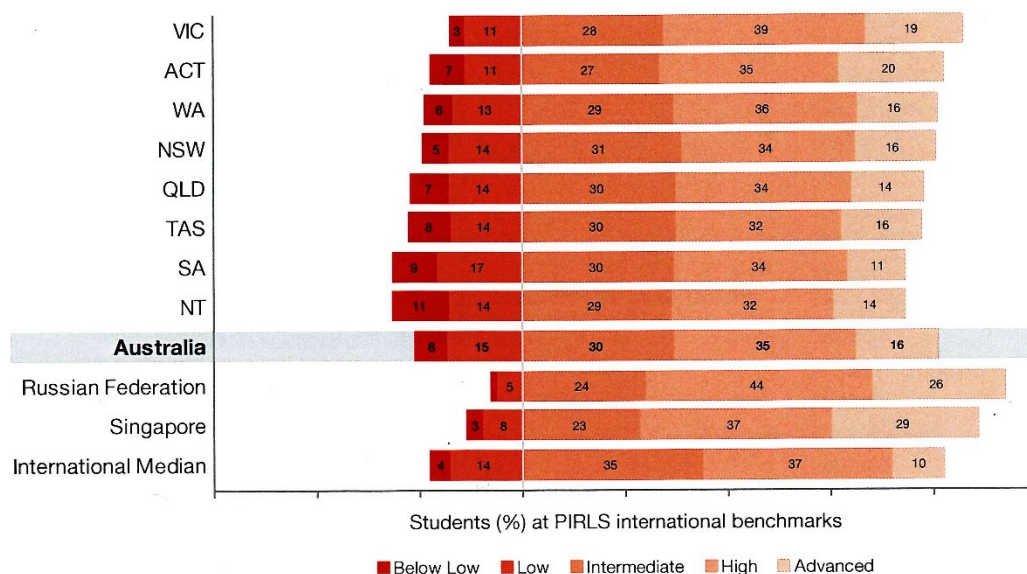


Trends in Year 4 reading achievement by jurisdiction

Proficiency level

Eighty one per cent of Australian Year 4 students are achieving at or above the Intermediate benchmark – the proficient standard for Australia – compared to 76 per cent in 2011, with more students achieving at the High or Advanced benchmark.

Western Australia also reported 81 per cent of students at or above the proficient standard compared to 71 per cent in 2011. Western Australia, along with Queensland, are the only jurisdictions to report a decrease in the proportion of students performing below the Low benchmark (10 per cent in 2011 to 6 per cent in 2016).



Percentage of Australian students at the international benchmarks for Year 4 reading, by jurisdictions and international comparisons

Background characteristics

Due to the sample size the data is not disaggregated at the state/territory level except in relation to gender.

Gender

Female students continue to perform at a higher level in reading literacy, on average, than their male peers. The range of scores was greater for Australian Year 4 male students (282 points) than for Year 4 female students (260 points). A greater proportions of female students reach the High and Advanced benchmarks and greater proportions of male students are at or below the Low benchmark. Eighty five per cent of female students reached the proficient standard, compared to 77 per cent of male students. While both male and female students have improved over the two cycles, the gender 'gap' has not changed significantly.

The same pattern seen across Australia is very similar in Western Australia. The average score for females is greater than the average score for males by 23 points and 5 per cent more females reaching the proficiency standard.

Indigenous status

Nationally Indigenous students attained an average score of 483 points in reading, which is 67 points lower than the average score for non-Indigenous students of 550. The mean score for Indigenous students is within the range of the Intermediate benchmark, while the average reading score of non-Indigenous students is at the High benchmark (set at 550 points). There was no significant change in the average reading score for indigenous student between 2011 and 2016. Only 57 per cent of Australian Indigenous students reached the Australian proficiency standard, compared to 83%of non-Indigenous students.

There was no significant change in the average score of Indigenous students between 2011 (475 points) and 2016 (483 points). The gap in average reading performance of Indigenous and non-Indigenous Year 4 students has changed little over this time – from 57 points in 2011 to 67 points in 2016.

Language spoken at home

The language spoken at home variable is derived from student self-report of how often English was spoken at home. Where the student spoke English 'never' or only 'sometimes', the student was considered to speak a language other than English at home. Those who indicated that they spoke English 'always' or 'almost always' were considered to be English speakers in the home environment.

Fifteen per cent of students in the PIRLS Year 4 sample indicated that they did not speak English at home *always* or *almost always*. Students who spoke English at home *always* or *almost always* scored 15 points higher, on average, than students who spoke a language other than English most of the time, a statistically significant difference. Over 80 per cent of English-speaking students managed to reach the Intermediate benchmark, while 76 per cent of non-English speaking students reached this level.

Geolocation

Students attending school in remote areas made up only 2 per cent of the PIRLS sample, while those attending school in metropolitan areas made up 78 per cent of the sample.

Students attending schools in metropolitan areas scored, on average, 13 points higher than students attending schools in provincial areas, and 21 points, on average, higher than students attending schools in remote areas. All of these differences are statistically significant.

Thirty per cent of students in remote schools did not reach the Intermediate benchmark, including 9 per cent who did not reach the Low benchmark. Seven per cent of students from provincial schools and 5 per cent from metropolitan schools were performing at a level below that of the Low international benchmark.

There were no significant differences in the proportions of students reaching the Advanced benchmark according to the geographic location of their school. Twelve per cent of students in remote schools were reading at the Advanced benchmark, along with 14 per cent from provincial schools and 16 per cent from metropolitan schools. The proportion of students from remote schools who attained the Intermediate benchmark was 70 per cent, compared to 82 and 77 per cent of students from metropolitan and provincial schools, respectively.

Other outcomes

- Australian students showed a relative strength in the Literary reading purpose scale (547 points compared to 544 for reading overall) but no difference between their Informational score and reading overall (543 points compared to 544 points).
- Australian students showed a relative strength on the interpreting, integrating and evaluating scale (549 points compared to 544 points) and a relative weakness in the retrieving and straightforward inferencing scale (541 points).
- Performance on all reading purpose and process sub-scales improved in Australia between PIRLS 2011 and 2016.

Key student questionnaire findings

- Eleven per cent of students who reported having *many books* in the home did not reach the Intermediate benchmark, compared to 35 per cent of students who reported having just *a few books* in the home.
- Forty-three per cent of Australian students *very much like reading*, 41 per cent *somewhat like reading* and 16 per cent of students *do not like reading*. Over one-third of those students who were *not confident* readers indicated that they *did not like* reading.
- Australian students who were *never* or *almost never* absent from school, by their own report, scored 84 score points higher, on average, than those who were absent *once a week or more*.
- Nineteen per cent of Australian Year 4 students reported being bullied *about weekly*. On average, students who reported *almost never* being bullied scored 30 points higher than those who reported being bullied *about weekly*.
- Twenty-seven per cent of Australian students arrived hungry *every day or almost every day*. Students who reported arriving at school hungry *every day* scored 41 points lower, on average, than students who *never* arrived at school hungry.