Reading/Pānui: primary schooling

National Standards results for Year 1 to 8 students show that 77.8% are achieving at or above the standards for reading in 2016. The proportions of Māori and Pasifika that are reaching the standards are lower than the overall proportion of students reaching the standards.

In 2016, 69.0% of students assessed under Ngā Whanaketanga Rumaki Māori for pānui were achieving either manawa ora or manawa toa.

International assessments show no significant change in New Zealand Year 5 students' reading performance over the period from 2001 to 2010.

Indicator Description

This reading indicator draws on three sources of information:

For state and state-integrated schools that use the New Zealand Curriculum, a summary of the National Standards reading results are provided. National Standards results are based on overall teacher judgements (OTJs) about whether students in Years 1-8 were achieving at a level ‘well below’, ‘below’, ‘at’, or ‘above’ the standard in reading for their year level.

For state and state-integrated kura and schools that use Te Marautanga o Aotearoa (mainly Māori medium education schools), the Ngā Whanaketanga Rumaki Māori results in pānui (reading) are used. Ngā Whanaketanga Rumaki Māori are the Māori medium equivalent of National Standards.

An overview of selected findings from the Progress in International Reading Literacy Study 2010/11 (PIRLS-2010/11) is also included. PIRLS focuses on two overarching purposes that account for most of the reading undertaken by students at the middle primary level: reading for literary experience and reading to acquire and use information.
Why This Is Important

Building a strong foundation in reading at a primary school level is fundamental to learning. Reading is essential to being an effective participant in society and the workforce. Written language is a vital medium for communication, accessing information, developing cultural, social and personal identity and national awareness, and for understanding other perspectives. Students encounter a range of written language forms in a variety of settings; in the home, school, and community. Reading texts that use descriptive and emotive language also opens up new worlds, real or imaginary, for students to experience and enjoy.
National Standards: Reading

Since 2011, state and state-integrated schools using the New Zealand Curriculum were required to publicly report their National Standards results for all Year 1 to 8 students. Student achievement is reported at four levels: ‘at’, ‘above’, ‘below’ or ‘well below’ for the standard at their year level. The 2011 school year saw the transition into National Standards data collection, and the data from that transition year has been excluded from analysis in indicator.¹ Of the 2,081 schools with Year 1-8 students in 2016 using the New Zealand Curriculum, 2,063 provided National Standards data for reading.

How We Are Going

In 2016, the percentage of students that are achieving at or above the National Standard in reading for their year level has decreased slightly to 77.8% (from 78.1% in 2015).

Figure 1: Proportion of students achieving at or above the National Standard for reading (2012-2016)

¹ Statistics that include the 2011 national standards results can be found under the “Statistics” section of the Education Counts website (http://www.educationcounts.govt.nz/statistics/schooling/national-standards).
**Ethnic Group**

In 2016 European/Pākehā students had the highest proportion of students learning at or above the reading standard (84.2%), which was 5.8 percentage points higher than Asian (78.4%). Māori (68.8%) and Pasifika (66.0%) had the lowest rates.

These proportions have decreased across all ethnicities since 2015. The proportion of Māori, Pasifika, Asian and European/Pākehā at or above standard all decreased by 0.1, 0.1, 0.6 and 0.2 percentage points respectively since 2015.

*Figure 2: Proportion of students achieving at or above National Standards for reading, by ethnic group (2013-2016)*
Gender

The proportion of Year 1 to 8 male students achieving at or above the standard in reading is much lower than that of female students. In 2016, 82.1% of females achieved at or above the standard compared to 73.6% of males.

This general relationship between reading literacy and gender for Year 1 to 8 students is consistent with international findings that show Year 5 females perform, on average, better than males at reading. It is important to note that the PIRLS findings are based on a sampling study of Year 5 students, whereas the National Standards results are based on the majority of all Year 1 to 8 students in New Zealand.

Figure 3: Proportion of students achieving at or above the National Standards for reading, by gender (2012-2016)
Decile

Decile provides a measure of the socio-economic status of a school’s student body: the lower a school’s decile is, the lower their school community’s socio-economic status is. There is a clear relationship between school decile and National Standards achievement; as decile increases so does the proportion of students achieving at or above the standard for reading. In 2015 and 2016 the same general trend from lowest to highest decile is seen. The difference between decile 1 (61.7%) and decile 10 (87.0%) in 2016 was 25.3 percentage points.

This general relationship between reading literacy and school decile is consistent with evidence from PIRLS which shows higher reading performance amongst students from areas of higher affluence. It is important to note that the PIRLS findings are based on a sampling study of Year 5 students, whereas the National Standards results are based on the majority of all Year 1 to 8 students in New Zealand.

*Figure 4: Proportion of students achieving at or above the National Standard for reading, by decile (2015-2016)*
Year Level

National Standards information is collected after a student has been at school for one year, after two years’ attendance, after three years’ attendance, and then annually for students in year levels four to eight. Because of differing assessment criteria and assessment tools for the different year level standards, direct comparisons of performance between year levels are fraught. Comparisons within year levels, across time, do not carry the same issues.

Between 2015 and 2016, lower year levels have shown a decrease in the proportion of students achieving at or above the standard. Students after one, two and three years of schooling all showed a decrease in proportions at or above standard by between 0.6 to 1.7 percentage points. The largest improvement was by students at the end of year 4 where the proportion of students at or above the reading standard increased by 0.3 percentage points.

Figure 5: Proportion of students achieving at or above the National Standard for reading, by year level (2012-2016)
**Ngā Whanaketanga Rumaki Māori: Pānui**

The 2016 year was the fifth year for which kura and schools using Te Marautanga o Aotearoa reported their results for Ngā Whanaketanga Rumaki Māori. Due to a large difference in the sample of schools that supplied data over previous years and an update in assessments, only data from 2014 onwards are included in this indicator.

For each category in Ngā Whanaketanga students can be assessed as:

**Manawa Toa**
Kei runga noa atu. The student is progressing and achieving higher than expected for particular learning areas.

**Manawa Ora**
Kua tutuki Ngā Whanaketanga Rumaki Māori. The student is progressing and achieving as expected for particular learning areas.

**Manawa Āki**
E whanake tonu ana kia tutuki Ngā Whanaketanga Rumaki Māori. The student is progressing but requires further support to assist their achievement for particular learning areas.

**Manawa Taki**
Me āta tautoko kia tutuki Ngā Whanaketanga Rumaki Māori. The student requires in-depth support to assist their achievement for particular learning areas.

Of the 202 schools and kura with Year 1-8 students that were using Te Marautanga o Aotearoa in 2016, 131 provided Ngā Whanaketanga Rumaki Māori data. Of these, 129 provided data for students assessed on pānui.
How We Are Going

In 2016, 69.0% of students assessed on pānui achieved either at manawa ora or manawa toa. This is an increase of 0.5 percentage points from 2015 (68.5%).

When split out further into all achievement categories, 13.0% were assessed to be manawa taki, 18.0% assessed to be manawa āki, 35.5% assessed to be manawa ora and 33.5% assessed to be manawa toa in pānui.

*Figure 6: Proportion of students at each level of Ngā Whanaketanga Rumaki Māori for pānui (reading) (2014-2016)*
Ethnic Group

Over 99% of students that are assessed under Ngā Whanaketanga are Māori. There are only a very small absolute number of non-Māori students assessed using Ngā Whanaketanga. For this reason ethnic groups have not been separated out for comparison.

Gender

The gender difference for pānui runs in the same direction as the National Standards gender difference for reading, and is consistent with the direction of gender differences internationally.

Kōtiro (girls) were more likely to be judged as achieving either manawa ora or manawa toa than tama (boys) for pānui (74.1% compared to 63.8%; a difference of 10.3 percentage points). While tama have lifted achievement rates since 2015 from 62.5%, kōtiro have dropped from 74.5%.

Figure 7: Proportion of students achieving manawa ora or manawa toa in Ngā Whanaketanga Rumaki Māori for pānui, by gender (2014-2016)
Quintile

Decile provides a measure of the socio-economic status of a school’s student body: the lower a kura or school’s decile is, the lower their school community’s socio-economic status is. Due to the smaller number of schools (and therefore students) that are assessed using Ngā Whanaketanga, there are some deciles that have no students being assessed. To provide a better indication of socio-economic spread of achievement in pānui, deciles have been grouped into quintiles, with quintiles 4 and 5 grouped together. There were 91 kura or schools in quintile 1 (deciles 1 and 2), 25 in quintile 2 (deciles 3 and 4), 8 in quintile 3 (deciles 5 and 6) and 5 in quintiles 4 and 5 (deciles 7 to 10).

When grouped in this way, proportions of students achieving manawa ora or manawa toa appear to increase with quintile. However, given the uneven spread of the kura and schools amongst quintiles, care should be taken when interpreting results. The relationship between quintile and the proportion of students achieving manawa ora or manawa toa for pānui is not as clear cut as the relationship seen between decile and National Standards for reading.

Figure 8: Proportion of students achieving manawa ora or manawa toa in Ngā Whanaketanga Rumaki Māori for pānui, by quintile (2015-2016)
Whanaketanga Level

Rather than examining Ngā Whanaketanga results by year level, Ngā Whanaketanga is split up into Whanaketanga levels, much like how deciles are grouped into quintiles. Whanaketanga 1 includes Year 1 and 2 students, Whanaketanga 2 includes Year 3 and 4 students, Whanaketanga 3 includes Year 5 and 6, and Whanaketanga 4 includes Year 7+.

Drawing conclusions about the achievement of students in one Whanaketanga level compared to another within the same year is not advisable because of how assessment standards may differ from Whanaketanga level to Whanaketanga level. Comparisons within Whanaketanga levels, across time, do not carry the same issues.

Between 2015 and 2016 Whanaketanga levels 2 (74.3%) and 4 (69.3%) have shown an increase in the proportion of students achieving manawa ora or manawa toa (1.0 and 2.3% points respectively). However, whanaketanga levels 1 (57.7%) and 3 (74.0%) have shown a decrease by 1.0 and 1.1% points respectively.

Figure 9: Proportion of students achieving manawa ora or manawa toa in Ngā Whanaketanga Rumaki Māori for pānui, Whanaketanga level (2015-2016)
International Comparison

In addition to using National Standards and Ngā Whanaketanga Rumaki Māori to examine literacy trends within New Zealand, international studies are used to examine primary-aged students’ reading literacy in relation to other nations and education systems.

How We Are Going

Year 5 students in New Zealand have moderately high reading literacy achievement, on average, compared with their counterparts in other countries, and like most countries, girls generally have higher achievement than boys.

New Zealand Year 5 students’ mean reading literacy score (531) was significantly higher than the PIRLS Scale Centrepoint (500). There has been no significant change in Year 5 students’ reading literacy performance over the period 2001 to 2010.

The spread of scores between New Zealand’s higher performing students and lower performing students was relatively wide compared with other countries where English was one of the assessment languages. (New Zealand assessed a very small group, 2%, in te reo Māori). There has been little change in this range over the period 2001 to 2010.

New Zealand Year 5 students’ mean performance in reading literacy was significantly higher than 17 countries but was significantly lower than 20 countries including Finland, the United States, England, Northern Ireland, Ireland, and Canada.

As mentioned, there has been no significant change in achievement over three cycles of PIRLS, from 2001 to 2010. However, while New Zealand’s mean reading literacy achievement did not change, New Zealand’s standing relative to 18 other countries across three cycles changed from 10th in 2001 to 13th in 2005/06, and 2010/11. Table 1 shows the other countries that have also participated in all three PIRLS cycles and New Zealand’s standing relative to those countries.

<table>
<thead>
<tr>
<th>Assessment year</th>
<th>Mean reading scale score</th>
<th>Distribution of reading literacy achievement</th>
</tr>
</thead>
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<tr>
<td>2001</td>
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<tr>
<td>2005/06</td>
<td>532 (2.0)</td>
<td></td>
</tr>
<tr>
<td>2010/11</td>
<td>531 (1.9)</td>
<td></td>
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Table 1: Relative standing of countries in three cycles of PIRLS, 2001–2010/11

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean Scale Score</th>
<th>Country</th>
<th>Mean Scale Score</th>
<th>Country</th>
<th>Mean Scale Score</th>
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<td>565 (3.4)</td>
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<td>Hungary</td>
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<tr>
<td>Trend country mean</td>
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<td>Trend country mean</td>
<td>532 (0.7)</td>
<td>Trend country mean</td>
<td>535 (0.7)</td>
</tr>
</tbody>
</table>

Notes
2. Israel (not shown) participated in 2001 and 2005/06. In both years, its mean reading scores were significantly lower than the New Zealand means. However, comparisons could not be made with 2010/11 due to the changes made to their assessment texts during the translation process.
3. The percentage of students in Morocco with achievement too low for estimation exceeded 25%. The mean scores are shown in the figure for illustrative purposes only and were not used in the calculations for the trend means.

The international reading benchmarks are four points on the reading scale that describe the types of comprehension skills students demonstrated when reading the PIRLS texts and answering the questions associated with the texts. They are: the Advanced International Benchmark (625), the High International Benchmark (550), the Intermediate International Benchmark (475), and the Low International Benchmark (400). In 2010, 14% of Year 5 students reached the Advanced International Benchmark; 8% did not reach the Low International Benchmark. In terms of the benchmark definitions, these Year 5 students had difficulty with locating and retrieving explicitly-stated detail from the reading texts. The proportion of students reaching each of these benchmarks has not changed significantly over the three cycles.
Gender

There has been no significant change in the mean reading achievement of Year 5 boys or Year 5 girls across the three cycles of PIRLS. The mean reading achievement of Year 5 girls was significantly higher than boys and this difference was one of the largest among the countries participating in PIRLS. The average difference has, however, decreased over time from 27 in 2001 to 20 in 2010.

The 2011 international gender comparison in reading achievement complements findings from the 2013 National Standards data where slight gender difference in females’ favour was found. Ngā Whanaketanga 2013 results show the same gender disparity, with females more likely to be manawa ora or manawa toa in pānui. However, in making these general comparisons it is important to note that the PIRLS research is based on a sample of only Year 5 students in 2011, whereas National Standards and Ngā Whanaketanga Ruma Māori reported in this indicator are from 2013 and are intended to include all Year 1 to 8 students under at least one of the two assessment types.

Figure 10: Mean PIRLS reading scale scores, by gender (2010)

Note: Error bars on the graph provide a 95 percent confidence interval for the estimate of the mean.
Socio-economic Status

Principals in all PIRLS countries were asked to provide estimates, using a four-point scale—‘0–10%’, ‘11-25%’, ‘26-50%’, and ‘more than 50%’—of the proportions of students in their school that came from economically disadvantaged backgrounds and the proportion coming from economically affluent homes. Analysis showed that New Zealand principals’ estimates of economic composition aligned very well with the Ministry of Educations decile for their schools and vice versa.

Internationally, all principals’ responses to the questions on the two socio-economic measures (economically disadvantaged vs. economically affluent) were then aggregated in order to describe the overall student body: schools that had proportionally more disadvantaged than affluent students (i.e., more than 25% from economically disadvantaged homes and 25% or fewer from economically affluent homes) and schools with more affluent than disadvantaged students (i.e., 25% or fewer students from economically disadvantaged homes and more than 25% of students from economically affluent homes).

The mean reading performance of Year 5 students increases as the aggregated level of socio-economic rating increases both for New Zealand and internationally. However, the gradient of change in performance between the levels is steeper for New Zealand than internationally. Economic differences seem to have a greater impact on New Zealand student achievement than internationally.

**Figure 11: Mean PIRLS reading scale scores, by gender (2010)**

![Graph showing mean PIRLS reading scale scores by gender and socio-economic status.]

*Note: The data points are the mean reading scores for the Year 5 students according to their schools’ economic composition. Error bars on the graph provide a 95 percent confidence interval for the estimate of the mean.*
Where to Find Out More

For information on other national assessment programmes for reading, as well as achievement indicators for primary school students, see the indicators on:

- Reading achievement: middle schooling
- Reading literacy achievement: senior secondary school
- Mathematics/Pāngarau: primary schooling
- Writing/Tuhituhi: Primary schooling
- Kōrero: Primary schooling
- Science achievement: primary schooling.

The Ministry of Education has established an Iterative Best Evidence Synthesis Programme to systematically identify, evaluate, analyse, synthesise and make accessible, relevant evidence linked to a range of learner outcomes. Evidence about what works for this indicator can be found in:

- BES (Iterative Best Evidence Synthesis) Programme - What Works Evidence Hei Kete Raukura

The Ministry of Education also reports on results from the National Standards School Sample Monitoring and Evaluation Project 2010-2013, a three year project on National Standards implementation in a representative sample of schools.

Summaries of the National Standards and Ngā Whanaketanga Rumaki Māori data are available on Education Counts.

Regional and territorial authority data on current year educational measures, including National Standards and Ngā Whanaketanga Rumaki Māori, are available in the Know Your Region section of Education Counts.

School level data for individual schools, including National Standards and Ngā Whanaketanga Rumaki Māori information, can be found in the Find a School section of Education Counts.
References


