

Starting early makes a difference

- ▶ Students whose parents/caregivers reported that they had frequently exposed their child to early literacy activities such as reading books, telling stories, singing songs, and playing with alphabet toys generally achieved higher reading scores than those who hadn't (551 compared with 475).
 - The achievement difference was observed across all ethnic groupings.
 - Pakeha/European students were most likely to have done these activities while Asian students were the least likely.
- ▶ Most Year 5 students had attended an early childhood education facility before starting school (93%). The relatively small proportion of students who hadn't tended to achieve lower scores (503) than those who had (540).
 - The difference between the mean reading scores for those who had and hadn't was more evident for boys (50 point difference) than for girls (24 point difference).
 - Pakeha/European students were most likely to have attended some form of early childhood facility (95%), Pasifika the least likely (83%).



- ▶ Students who had started school with early literacy skills, particularly letter recognition skills (learnt either at home or at an early childhood education facility) tended to have higher achievement in their fifth year of school (558) than students who had started school without the skills (497).
 - Parents/caregivers' responses indicated that girls were more likely than boys to have these skills on starting school.
 - The difference between the mean reading scores for those boys who had a good grasp of the skills and those who hadn't was notably higher for boys (a significant 34 point difference) than it was for girls (20 point difference).
 - The achievement difference was observed for Pakeha/European and Māori students. The numbers for Pasifika and Asian were too small to confirm whether the differences were significant.

Students' love of reading

- ▶ Compared with their international counterparts, Year 5 students were relatively positive towards reading, but less likely to be positive about their reading ability.
 - Pakeha/European students were more likely to hold positive views towards reading and to have a higher self-concept of their reading ability than students from other ethnic groupings.
- ▶ Year 5 students who read for fun and read stories or novels every day generally achieved higher literacy scores.
 - Māori students were least likely to report they read for fun.

In the classroom

PIRLS gathered information about factors in the classroom in order to understand the context around which students were reading. The main focus was on the approach teachers used to teach reading, as well as the time allocated for reading, resources used during lessons, and allocation of homework.

- ▶ Year 5 students tended to be organised into same-ability groups for reading activities, while the preferred approach internationally was to teach students in a whole-class setting.
- ▶ Generally in classes internationally, the same reading material was being used by students regardless of their reading level, but with students reading at their own speed. In New Zealand and Scottish classes, however, different reading materials were used according to the reading level of the students.
- ▶ Similar to England and the United States, New Zealand students were introduced to textual analysis skills, such as identifying the main idea in a piece of text, at an earlier grade/class level than many other countries.

Countries that participated in PIRLS 2001

Argentina	England	Iran (Islamic Rep. of)	Moldova (Rep. of)	Scotland
Belize	France	Israel	Morocco	Singapore
Bulgaria	Germany	Italy	The Netherlands	Slovak Republic
Canada*	Greece	Kuwait	New Zealand	Slovenia
Colombia	Hong Kong, SAR	Latvia	Norway	Sweden
Cyprus	Hungary	Lithuania	Romania	Turkey
Czech Republic	Iceland	Macedonia (Rep. of)	Russian Federation	United States

*Ontario and Quebec only

What happens in reading instruction

Year 5 students typically spent around six hours per week on specific reading activities.

- ▶ Compared to students in other countries Year 5 students were:
 - more likely to be taught decoding strategies;
 - less likely to be helped with new vocabulary although the level was similar to the reporting in other English-speaking countries;
 - more likely to read silently on their own in class;
 - more likely to be asked by their teacher to answer questions orally, and to write about or talk with their classmates about what they had read; these practices were similar to other English-speaking countries;
 - more likely to do an art project in response to what they had been reading;
 - likely to be assigned less reading homework.

Some of the instructional practices used in New Zealand's lower performing classes (i.e. where the class mean was less than 500) were compared with those used in higher performing classes.

- ▶ Compared to Year 5 students in higher performing classes, students in lower performing classes were equally likely, on a daily basis:
 - to be read aloud to by their teacher;
 - to read silently on their own;
 - to read along silently while another student read aloud.
- ▶ They were more likely on a daily basis:
 - to read aloud in small groups or pairs;
 - to write and answer oral questions about what they've read; and to a lesser extent,
 - draw pictures or do an art project about what they've read.

The future of literacy

The PIRLS research highlights the range of performance in reading that exists in New Zealand. That is, within each ethnic grouping, and for boys and girls, there were students that achieved on the PIRLS assessment as well as the high performers across the world. There were also some relatively low performing students within these groups.

The government's Literacy Strategy was introduced to schools in 2000, and so it is probably too early to see the impact of that strategy on the PIRLS results. The strategy recognises that a teacher's influence on a student's educational outcomes is the key to closing New Zealand's achievement gaps. It also recognises the need for teachers to have quality professional development for supporting a diverse range of literacy needs in the classroom. During 2001 and 2002 a number of professional development initiatives made a positive contribution to the growing evidence base about what works in teaching literacy, and this evidence is already forming part of the design and delivery of future professional development programmes.



Effective Literacy Practice in Years 1 to 4 was distributed to all primary schools in August 2003. This handbook provides teachers with effective literacy teaching practice for ensuring that all children receive the best possible literacy development in the first four years of school. It has been designed as the key reference for professional development programmes as well as providing a platform for further materials to support literacy teaching in classrooms.

Related reading

Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis. This report, released in June 2003, presents 10 research-based characteristics of quality teaching derived from a synthesis of research findings of evidence linked to student outcomes.

www.minedu.govt.nz/goto/bestevidencesynthesis

For further information: This summary is also available on: www.minedu.govt.nz/goto/pirls

The international PIRLS web site: www.pirls.org

ISBN 0-478-13043-0

Progress in International Reading Literacy Study: A Summary of New Zealand's Year 5 Student Achievement 2001



a b c d e f g h i j k l m n o p q r s t u v w x y z

New Zealand was one of 35 countries that took part in PIRLS in 2001, an international survey that assessed the reading literacy of 10-year-olds.

About PIRLS

Co-ordinated by the International Association for the Evaluation of Educational Achievement (IEA), PIRLS is a comparative study of reading achievement that is part of a regular cycle of international student assessments. The first survey was carried out in countries including New Zealand in 2001, and the next assessment in New Zealand is scheduled for November 2005.

PIRLS aims to provide teachers, principals, policy makers and the public with information about the reading literacy skills and abilities of middle primary school students.

PIRLS studies two main reasons why students read:
reading for literacy experience and *reading to acquire and use information.*

New Zealand’s participation in PIRLS

New Zealand’s participation in PIRLS enables us to compare our children’s literacy progress with similar age children in other countries, as well as to help monitor the strengths and weaknesses of our education system. The high quality data that PIRLS provides is used to inform curriculum development and gauge the success of the Ministry’s literacy strategies.

Age of the students in PIRLS

Middle primary school is an important transition point in a child’s reading development. Therefore, children in Grade 4 (or Year 5 in New Zealand) were selected as the focus of the survey. In New Zealand, the average age of the students that took part in PIRLS was 10.1 years, slightly younger than the average age of students in most countries. The international average was 10.3 years.

School starting age and school entry

The school starting age in most countries is 6 or 7 years. In France and Singapore, for example, the school starting age is 6 years, while in Sweden and Latvia it is 7 years. In England and Scotland it is 5 and in the Netherlands it is 4 years. In New Zealand the compulsory age is 6, but nearly all children start on or near their 5th birthday. New Zealand is the only country that has this entry practice; in all other countries, students start at specific intake points. For example, in England many children start school at the beginning of the school year (i.e. September) in which they turn 5 years.

Pre-primary education

Pre-primary education practices differ considerably across countries. For example, in Germany pre-primary education is voluntary. About 90 percent of 3 to 5-year-olds attend a kindergarten or are in a pre-school but reading instruction does not start until they enter primary school at 6 years. In Sweden, formal schooling starts at age 7. However, most 6-year-olds attend pre-school classes after having spent some time in nursery school and day care centres. Some preparatory reading instruction starts in these classes. Most children enter primary school in the Netherlands at 4 years, where they spend two years in the kindergarten. Formal reading and writing instruction starts in their third year of primary school (i.e. Grade 1).

PIRLS tests and questionnaires

All participating countries made contributions to the test and questionnaire design during the development phase, with the final versions approved by all countries after a field trial in 2000. Teachers in the participating New Zealand schools administered the assessment during October/November 2001.

Students were given a test in the form of two passages of text, each passage (fiction or factual) was followed by a series of questions designed to assess their comprehension.

As well, students, parents/caregivers, reading teachers and school principals each completed a 20-30 minute questionnaire. Their responses were used as background data to help interpret the achievement scores from the test. The questionnaires covered topics such as the availability of educational resources at home, early literacy activities in the home, and the teachers’ organisational and instructional practice for teaching reading.

Language of the test

Countries assessed their students according to the language of instruction. Many countries tested in more than one language in order to cover their whole student population. In New Zealand, schools were given the option of testing students in English or in te reo Māori. Because the group of students assessed in te reo Māori is very small (less than 3% percent), their achievement results are *not* presented separately from the group of students assessed in English.

Key findings: New Zealand in an international context

- ▶ The mean reading score for New Zealand Year 5 students was 529, significantly higher than the international average of 500.
 - The mean score for our Year 5 students was similar to students in the Czech Republic, Scotland, Singapore, and France.

- ▶ The range of scores for New Zealand was wider than the range for most other countries.
 - The range between the lowest achieving Year 5 students and the highest achieving Year 5 students (i.e. the difference between the 5th and the 95th percentiles) was 308. This is large compared with most other high-performing countries although England (290) and Singapore (310) had a similarly large spread.

- ▶ Seventeen percent of our students scored above the international Top 10% benchmark, and 35 percent reached the Upper Quarter (top 25%) benchmark.
 - Only four countries – England, Bulgaria, Sweden, and the United States – recorded a higher proportion of students achieving above 615, the international Top 10% benchmark.

- ▶ A *relatively* large proportion of our low achieving students did not reach the international Lower Quarter (bottom 25%) benchmark.
 - Sixteen percent of New Zealand students achieved a score lower than this benchmark (435) compared with four percent of Swedish students, 10 percent of English students, and 11 percent of students from the United States.

Ethnicity

Five broad ethnic classifications were used to examine achievement and ethnicity: Pakeha/European, Māori, Pasifika, Asian, and Other. (Because only two percent of Year 5 students were classified as *other*, their achievement information is not presented in this summary).

- ▶ In every ethnic grouping there was a wide range of performance including both high and low achieving students.
 - The range between the highest and lowest achieving students was greater for Māori (301) and to a lesser extent Pakeha/European (283) compared with Asian (275) and Pasifika (264).

- ▶ The mean scores for Pakeha/European (552) and Asian (540) students were significantly higher than the international mean (500).
 - Around three-quarters of Pakeha/European students scored above the international mean.

- ▶ The mean scores for Māori (481) and Pasifika (481) students were significantly lower than the international mean (500).
 - Just over five percent of Māori students reached the international Top 10% benchmark of 615. Less than half of Māori and Pasifika students achieved a score above the international mean.

- ▶ Pakeha/European and Māori students generally achieved better on literary texts than on informational texts, and Pasifika and Asian students tended to perform better on informational texts than on literary texts.



Gender

In all countries, girls were consistently better readers than boys were. New Zealand was no exception.

- ▶ The range of scores was almost as large for Year 5 girls (300) as for Year 5 boys (312).

- ▶ New Zealand boys (516) typically scored above both the international mean for boys (490) and the overall international mean (500).
 - Pakeha/European and Asian boys (539 and 526 respectively) generally scored well above the international mean for boys.
 - Māori and Pasifika boys (466 and 465 respectively) tended to achieve scores well below the international boys’ mean.

- ▶ New Zealand girls (542) generally scored well above the international mean for girls (510).
 - Pakeha/European and Asian (567 and 560 respectively) generally performed well above the international girls’ mean, with Pakeha/European girls having the largest proportion in the study of any sub-group (more than 75%) scoring above the overall international mean.
 - Māori and Pasifika girls generally scored around about the overall international mean (495 and 500 respectively) but lower than the international girls’ mean.

- ▶ The difference between the overall New Zealand girls’ and boys’ mean scores was one of the largest of all the participating countries (27 points).
 - All girls across all ethnic groupings generally achieved significantly higher scores than their respective male counterparts. The biggest gender differences were observed for Pasifika and Asian students.

- ▶ The gender difference was greater among low achievers than higher achievers.

Home language

- ▶ The difference between the mean scores for New Zealand students who frequently spoke the language of the test at home (540) and those who didn’t (485) was the third largest to be observed internationally.
 - The biggest difference between mean scores was found for Pasifika students.

School type

- ▶ There were no major differences between the performance of Year 5 students attending smaller schools and those attending larger schools.

- ▶ Year 5 students attending rural schools generally achieved slightly higher scores than those in urban and suburban schools, although the differences were not significant.

Targeted Funding for Educational Achievement (TFEA)

- ▶ Students attending schools with a TFEA indicator in the 8 to 10 band generally achieved markedly higher scores than those in the 4 to 7 and 1 to 3 bands (566 compared with 537 and 483 respectively).

- ▶ There was a considerable range of scores across *all* TFEA bands but the spread was larger for students in the 1 to 3 band schools (300) compared to those in the 4 to 7 and 8 to 10 bands (290 and 275 respectively).

Reading in the home

The home has an important role in fostering literacy. Access to home educational resources such as books, as well as parents/caregivers engagement with reading and their own attitudes to reading, all play a role in supporting a child’s enjoyment of reading.

- ▶ Parents/caregivers who were regular readers and were positive about reading tended to have children who did well in reading.
 - The parents/caregivers of Pakeha/European students were more likely to read frequently and hold positive views towards reading than the parents/caregivers of students from other groupings.

- ▶ Students who regularly borrowed library books to read for fun tended to achieve higher scores; Māori students were least likely to report regular book borrowing.

- ▶ This study shows a connection between the number of books students have in their home and student achievement in reading. New Zealand was one of 11 countries where at least 20 percent of students reported having more than 200 books in the home.

