

International Association for the Evaluation of Educational Achievement

Progress in International Reading Literacy Study (2011)

Ontario Report



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December 2012

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Introduction

The Progress in International Reading Literacy Study (PIRLS) is an assessment of Grade 4 student reading achievement. PIRLS is designed to measure trends in reading literacy with respect to two major reading purposes (literary and informational) and four major processes of reading comprehension (retrieving explicitly stated information, making straightforward inferences, interpreting and integrating ideas and information, and evaluating content). PIRLS is based on the 1991 Reading Literacy

Study developed by the International Association for the Evaluation of Educational Achievement (IEA), in which Ontario did not participate. The first PIRLS assessment was conducted in 2001, the second in 2006 and the third in 2011. Ontario participated in all three assessments. PIRLS provides data that are complementary to the IEA's Trends in International Mathematics and Science Study, which assesses students in Grades 4 and 8.

Participants

The following 58 jurisdictions participated in PIRLS 2011.

Australia	Croatia	Lithuania*†	Singapore*†
Austria†	Czech Republic*	Malta*	Slovak Republic*†
Azerbaijan	Denmark†	Malta (Maltese)	Slovenia*†
Belgium (French)†	England*†	Morocco*†	South Africa†
Bulgaria*†	Finland	Netherlands*†	Spain†
Canada	France*†	New Zealand*†	Spain, Andalusia
Canada, Alberta†	Georgia†	Northern Ireland	Sweden*†
Canada, British Columbia†	Germany*†	Norway*†	Trinidad and Tobago†
Canada, New Brunswick (French)	Hong Kong, S.A.R.*†	Oman	United Arab Emirates
Canada, Nova Scotia†	Hungary*†	Poland†	Abu Dhabi, U.A.E.
Canada, Newfoundland and Labrador	Indonesia†	Portugal	Dubai, U.A.E.
Canada, Ontario*†	Iran, Islamic Rep. of*†	Qatar†	United States*†
Canada, Quebec*†	Ireland	Romania*†	United States, Florida
Chinese Taipei†	Israel*†	Russian Federation*†	
Colombia	Italy*†	Saudi Arabia	

* Also participated in the PIRLS 2001 assessment (28 jurisdictions).

† Also participated in the PIRLS 2006 assessment (45 jurisdictions).

In 2011, a Canadian-wide sample was selected and seven provinces selected samples large enough to provide provincial results. In spring 2011, each participating province conducted the study with a random sample of students. In Ontario, this

involved 189 schools (English- and French-language) and 4561 Grade 4 students, which provided sufficient data to report on the reading achievement of students from both linguistic groups.

Summary of Results

- Ontario Grade 4 students performed near the top in overall reading achievement compared to the 58 jurisdictions, including the participating Canadian provinces. Only five jurisdictions performed significantly better than Ontario in overall reading achievement.
- There was a slight decline in Ontario's position between 2006 and 2011 relative to jurisdictions that participated in both years. One jurisdiction that was not significantly different from Ontario in 2006 is now higher; six that were lower than Ontario in 2006 are now that same as Ontario and four that were the same as Ontario in 2006 are now lower.
- Fifteen percent of Ontario students reached the Advanced international benchmark, and 54 percent reached the High benchmark.
- Between 2001 and 2011, there was a general trend toward improved student performance in Ontario. There was a notable improvement during this period in the following categories:
 - average score for overall reading achievement among French-language students* and
 - average score for overall reading achievement among boys.*
- Ontario English-language students scored significantly higher than Ontario French-language students in overall reading achievement, but the French-language students showed greater improvement in reading achievement between 2001 and 2011.
- Ontario English-language students demonstrated significantly higher achievement on reading for literary purposes than they did on reading for informational purposes. Ontario French-language students performed the same on reading for both purposes.
- Ontario students demonstrated higher achievement on reading questions assessing the interpretation, integration and evaluation of ideas and information than on questions assessing the retrieval of explicitly stated information and the making of straightforward inferences.
- In all jurisdictions except Colombia, France, Italy and Spain, girls performed significantly better than boys in reading achievement. In Ontario, there was a significant 12-percentage-point difference favouring girls, which is eight points smaller than it was in 2001. This trend was found in Ontario in reading for both literary and informational purposes and in both reading comprehension processes.
- In all jurisdictions, students from high-Home Educational Resources (HER) homes had higher reading achievement than those from medium- and low-HER homes. The HER index was based on the number of books and children's books in the home and the availability of educational aids, such as computers, desks and daily newspapers; parents' education; and parents' occupation. This was also true in Ontario, where students from high-HER homes (37% of Ontario students) had an average scale score of 581 and students from medium-HER homes (62% of Ontario students) had an average scale score of 542.
- PIRLS defined an Early Home Literacy Activities (EHLA) index based on parents' responses to statements about doing the following activities with their children prior to their entry into primary school: "read books," "tell stories," "sing songs," "play with alphabet toys," "play word games" and "read aloud signs and labels." Fifty-four percent of Ontario students were in the high-EHLA category. The average achievement of these students was significantly higher than that among students who were in lower categories. This positive relationship was found in every jurisdiction. The percentage of students in the high-EHLA category ranged from 12% to 61% across the participating jurisdictions, with an international average of 37%.
- Contrary to the international average, results for students in Ontario who spoke the language of the test before starting school were not significantly higher than those of students who did not (557 and 553, respectively). The score difference for the international average was 37 points (516 for students who did speak the language of the test before starting school compared to 479 for those who did not).
- In Ontario, 36% of the students indicated liking reading, more than the international average (28%); 49% of Ontario students indicated "somewhat" liking reading. For the first category, the average scale score was 577; for the second, 543.
- In Ontario, the scale score for the 40% of students who indicated feeling confident in their reading was 583; for the 52% who indicated feeling "somewhat" confident in reading, the average scale score was 539.
- In 2011, large percentages of teachers in Ontario reported asking their students at least weekly to do activities to develop Reading Comprehension Skills such as "identifying the main idea" and "explaining and supporting their understanding."

* Differences were statistically significant.

Data Sources

Data were collected by means of student assessment booklets and questionnaires. Each student completed one of 12 test booklets and a Student Questionnaire during a period of 80 minutes for the assessment and an additional 15–30 minutes for the questionnaire. There were a total of 10 reading passages distributed among the 12 student booklets, but each student

responded to only two reading passages in his or her one booklet. A “Learning to Read Survey” was administered to parents or primary caregivers, a Teacher Questionnaire was administered to the language teacher of the students tested, and a School Questionnaire was completed by the principal to provide a more comprehensive picture of the students’ learning context.

Reporting Scales

Student performance is expressed as a score on a scale from 0 to 1000, with an international centrepoint of 500. Student performance is also reported as the percentage of

students achieving four international benchmarks for reading achievement (Advanced, High, Intermediate and Low), which are defined in Appendix A.

Achievement Results

On the following pages are tables and graphs that provide information about student achievement in reading on the 2011 assessment and some comparison data about Ontario students from 2001 to 2011. The full results are in the international report, which can be viewed on the EQAO Web site, www.eqao.com.

Table 1 shows the PIRLS results for participating jurisdictions compared with the results for Ontario (jurisdictions that scored the same as, higher than or lower than Ontario, including English Ontario and French Ontario). The distribution among these categories is based on statistical analyses to determine which differences between jurisdiction averages were statistically significant.

Only five jurisdictions had results that were significantly higher than the results for Ontario. Fourteen jurisdictions had results that were the same as those for Ontario, including the provinces of Alberta, British Columbia, Newfoundland and Labrador, and Nova Scotia. Thirty-eight jurisdictions had results that were lower than those for Ontario, including Quebec and New Brunswick. The average scale score for English Ontario was higher than that for French Ontario.

Table 1: Average Scale Scores

Reading Achievement Distribution

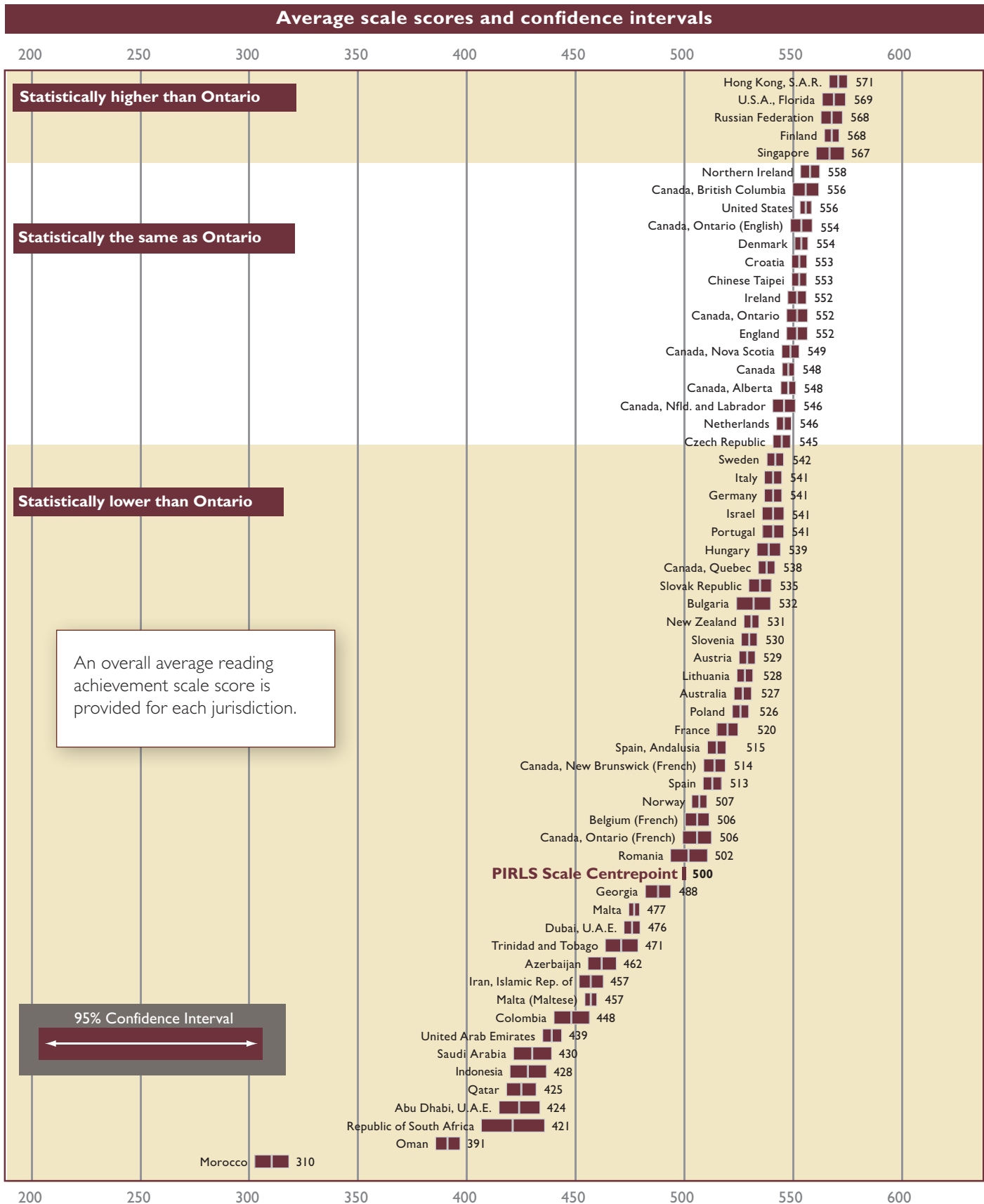


Table 2 provides the percentage of students at or above the four international benchmarks.

Table 2: Percentages of Students at or Above the PIRLS 2011 International Benchmarks in Overall Reading Achievement*

Jurisdiction	International Benchmark				Jurisdiction	International Benchmark			
	Advanced (625)	High (550)	Intermediate (475)	Low (400)		Advanced (625)	High (550)	Intermediate (475)	Low (400)
Singapore	24 (1.6)	62 (1.8)	87 (1.1)	97 (0.4)	Slovenia	8 (0.7)	42 (1.2)	79 (0.9)	95 (0.6)
U.S.A., Florida	22 (1.7)	61 (1.7)	91 (1.1)	98 (0.4)	Canada, Quebec	7 (0.7)	43 (1.9)	85 (1.0)	98 (0.3)
Russian Federation	19 (1.2)	63 (1.7)	92 (1.1)	99 (0.2)	Poland	7 (0.6)	39 (1.2)	77 (0.9)	95 (0.5)
Northern Ireland	19 (1.2)	58 (1.4)	87 (0.9)	97 (0.6)	Romania	7 (0.7)	32 (1.6)	65 (2.1)	86 (1.5)
Finland	18 (0.9)	63 (1.3)	92 (0.7)	99 (0.2)	Netherlands	7 (0.5)	48 (1.5)	90 (0.8)	100 (0.2)
England	18 (1.1)	54 (1.3)	83 (1.1)	95 (0.5)	Lithuania	6 (0.5)	39 (1.4)	80 (1.2)	97 (0.4)
Hong Kong, S.A.R.	18 (1.2)	67 (1.5)	93 (0.8)	99 (0.2)	France	5 (0.5)	35 (1.6)	75 (1.5)	95 (0.8)
United States	17 (0.7)	56 (0.8)	86 (0.6)	98 (0.3)	U.A.E., Dubai	6 (0.4)	26 (0.9)	54 (1.0)	75 (0.8)
Canada, Ontario (English)	16 (1.3)	55 (1.8)	86 (1.2)	98 (0.4)	Austria	5 (0.5)	39 (1.5)	80 (0.9)	97 (0.3)
Ireland	16 (0.9)	53 (1.4)	85 (0.8)	97 (0.5)	Malta	4 (0.4)	24 (0.7)	55 (0.8)	78 (0.6)
Israel	15 (0.9)	49 (1.3)	80 (1.3)	93 (0.8)	Spain, Andalusia	4 (0.4)	31 (1.5)	73 (1.3)	95 (0.7)
Canada, British Columbia	15 (1.5)	55 (1.9)	88 (1.3)	98 (0.7)	Spain	4 (0.5)	31 (1.3)	72 (1.2)	94 (0.7)
Canada, Ontario	15 (1.3)	54 (1.7)	85 (1.1)	97 (0.4)	Republic of South Africa	4 (0.8)	14 (1.5)	34 (2.6)	57 (2.8)
Canada, Nova Scotia	14 (1.1)	52 (1.5)	85 (1.0)	98 (0.3)	Canada, Ontario (French)	4 (0.7)	28 (2.0)	67 (2.2)	92 (1.2)
New Zealand	14 (0.7)	45 (1.1)	75 (0.9)	92 (0.5)	Trinidad and Tobago	3 (0.5)	19 (1.4)	50 (1.9)	78 (1.5)
Canada	13 (0.7)	51 (1.1)	86 (0.6)	98 (0.2)	United Arab Emirates	3 (0.3)	14 (0.6)	38 (1.0)	64 (0.9)
Canada, Alberta	13 (1.0)	51 (1.6)	85 (1.2)	97 (0.5)	Canada, New Brunswick (French)	3 (0.8)	29 (1.9)	73 (2.0)	96 (0.7)
Canada, Nfld. and Labrador	13 (1.3)	50 (1.8)	84 (1.2)	98 (0.5)	Georgia	2 (0.3)	21 (1.2)	60 (1.6)	86 (1.4)
Chinese Taipei	13 (0.9)	55 (1.3)	87 (0.7)	98 (0.3)	Belgium (French)	2 (0.5)	25 (1.4)	70 (1.7)	94 (1.1)
Denmark	12 (0.8)	55 (1.2)	88 (0.8)	99 (0.2)	Qatar	2 (0.5)	12 (1.2)	34 (1.4)	60 (1.5)
Hungary	12 (0.9)	48 (1.5)	81 (1.2)	95 (0.7)	Norway	2 (0.4)	25 (1.5)	71 (1.3)	95 (0.7)
Bulgaria	11 (0.8)	45 (2.0)	77 (1.9)	93 (1.0)	U.A.E., Abu Dhabi	2 (0.6)	10 (1.2)	32 (1.9)	60 (1.9)
Croatia	11 (0.7)	54 (1.3)	90 (0.7)	99 (0.2)	Iran, Islamic Republic of	0 (0.2)	13 (0.9)	45 (1.6)	76 (1.1)
Australia	10 (0.7)	42 (1.1)	76 (1.0)	93 (0.7)	Malta (Maltese)	1 (0.2)	14 (0.7)	45 (0.9)	74 (0.9)
Italy	10 (0.7)	46 (1.4)	85 (1.1)	98 (0.4)	Colombia	1 (0.3)	10 (1.3)	38 (2.1)	72 (1.9)
Germany	10 (0.8)	46 (1.4)	85 (1.0)	98 (0.3)	Saudi Arabia	1 (0.2)	8 (1.0)	34 (2.0)	65 (1.9)
Portugal	9 (1.1)	47 (1.8)	84 (1.2)	98 (0.5)	Azerbaijan	0 (0.3)	9 (0.9)	45 (2.1)	82 (1.6)
Sweden	9 (0.8)	47 (1.6)	85 (1.0)	98 (0.3)	Oman	0 (0.1)	5 (0.4)	21 (0.9)	47 (1.2)
Czech Republic	8 (0.9)	50 (1.4)	87 (0.9)	98 (0.5)	Indonesia	0 (0.1)	4 (0.6)	28 (1.9)	66 (2.2)
Slovak Republic	8 (0.6)	44 (1.5)	82 (1.3)	96 (0.8)	Morocco	0 (0.0)	1 (0.2)	7 (0.7)	21 (1.3)
					International median	8	44	80	95

* The international benchmarks are defined in Appendix A. Standard error statistics appear in parentheses.

Ontario is among the top jurisdictions with respect to the percentage of students at the Advanced and High benchmarks.

Table 3 presents the PIRLS 2011 results for girls and boys. Average reading achievement scale scores are provided, along with the standard error statistics in parentheses.

The average scale score is significantly higher among girls than among boys in all jurisdictions other than Colombia, France, Italy and Spain. The difference in achievement among boys and girls in Ontario is smaller than the international average.

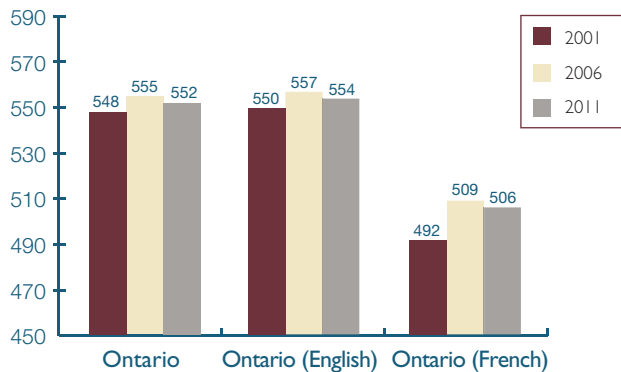
Table 3: Jurisdictions' Average Reading Achievement by Gender

Jurisdiction	Average Scale Score		Achievement Difference (Absolute Value)	Jurisdiction	Average Scale Score		Achievement Difference (Absolute Value)
	Girls	Boys			Girls	Boys	
Colombia	447 (4.6)	448 (4.6)	1 (3.9)	Bulgaria	539 (4.5)	524 (4.3)	15 (3.5)
Italy	543 (2.4)	540 (2.7)	3 (2.4)	Romania	510 (4.8)	495 (4.3)	15 (3.3)
France	522 (3.4)	518 (2.4)	5 (2.7)	Ireland	559 (2.9)	544 (3.0)	15 (3.9)
Spain	516 (2.5)	511 (2.8)	5 (2.5)	Canada, British Columbia	564 (3.5)	548 (3.7)	16 (2.7)
Belgium (French)	509 (3.1)	504 (3.1)	5 (2.3)	Canada, Newfoundland and Labrador	555 (3.1)	538 (3.1)	16 (2.5)
Israel	544 (3.1)	538 (3.4)	6 (3.4)	Hungary	547 (3.2)	532 (3.2)	16 (2.6)
Czech Republic	549 (2.5)	542 (2.5)	6 (2.6)	Slovenia	539 (2.2)	523 (2.7)	16 (3.1)
Netherlands	549 (2.1)	543 (2.2)	7 (2.0)	Northern Ireland	567 (2.5)	550 (3.2)	16 (3.4)
Austria	533 (2.2)	525 (2.3)	8 (2.3)	Hong Kong, S.A.R.	579 (2.3)	563 (2.5)	16 (2.2)
Germany	545 (2.3)	537 (2.7)	8 (2.5)	Australia	536 (2.7)	519 (2.7)	17 (3.1)
Spain, Andalusia	519 (2.4)	511 (2.8)	8 (2.6)	Singapore	576 (3.5)	559 (3.6)	17 (2.6)
Canada, Alberta	553 (3.1)	543 (3.1)	10 (2.2)	Canada, Ontario (French)	514 (4.4)	498 (3.7)	17 (4.1)
Slovak Republic	540 (3.1)	530 (2.8)	10 (2.1)	Malta	486 (1.9)	468 (2.0)	18 (2.8)
United States	562 (1.9)	551 (1.7)	10 (1.8)	Indonesia	437 (4.5)	419 (4.3)	18 (2.3)
Denmark	560 (1.9)	548 (2.1)	12 (2.2)	Lithuania	537 (2.4)	520 (2.4)	18 (2.8)
Canada	555 (1.7)	542 (2.1)	12 (2.0)	Russian Federation	578 (2.8)	559 (3.1)	18 (2.3)
Canada, Ontario	558 (3.3)	546 (2.8)	13 (3.4)	Iran, Islamic Rep. of	467 (4.3)	448 (4.3)	20 (6.4)
Canada, Nova Scotia	556 (2.6)	543 (2.8)	13 (2.3)	New Zealand	541 (2.2)	521 (2.7)	20 (3.1)
Canada, New Brunswick (French)	520 (3.5)	507 (4.4)	13 (2.8)	Finland	578 (2.3)	558 (2.2)	21 (2.3)
Dubai, U.A.E.	483 (3.9)	470 (3.5)	13 (6.3)	Georgia	499 (2.7)	477 (4.0)	22 (3.0)
Canada, Ontario (English)	561 (3.5)	548 (2.9)	13 (3.6)	England	563 (3.0)	540 (3.1)	23 (3.0)
Canada, Quebec	544 (2.6)	531 (2.4)	14 (2.5)	Malta (Maltese)	470 (2.0)	445 (2.2)	25 (3.0)
Poland	533 (2.5)	519 (2.7)	14 (3.1)	Republic of South Africa	434 (7.7)	408 (8.7)	26 (7.7)
Azerbaijan	470 (3.6)	456 (3.5)	14 (2.3)	United Arab Emirates	452 (3.0)	425 (3.5)	27 (4.8)
Croatia	560 (2.1)	546 (2.2)	14 (2.2)	Morocco	326 (4.0)	296 (4.6)	29 (3.9)
Sweden	549 (2.4)	535 (1.0)	14 (2.7)	Qatar	441 (4.7)	411 (4.2)	30 (6.0)
Portugal	548 (3.0)	534 (2.8)	14 (2.4)	Trinidad and Tobago	487 (4.5)	456 (4.3)	31 (4.6)
Norway	514 (2.2)	500 (2.7)	14 (3.1)	Abu Dhabi, U.A.E.	442 (5.5)	406 (6.3)	36 (8.0)
Chinese Taipei	561 (2.1)	546 (2.1)	15 (2.1)	Oman	411 (3.0)	371 (3.4)	40 (2.9)
U.S.A., Florida	576 (3.4)	561 (3.0)	15 (2.9)	Saudi Arabia	456 (3.1)	402 (8.2)	54 (8.8)
				International avg.	520 (0.5)	504 (0.5)	16 (0.5)

Comparison of 2001, 2006 and 2011 PIRLS Achievement Results for Ontario

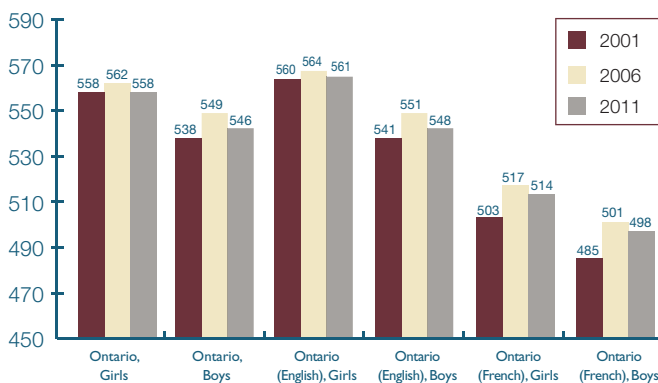
The following graphs show changes in average scale scores among students in Ontario between the 2001 and 2011 PIRLS administrations. When calculating differences from 2001 to 2011, the international agency made some adjustments to the samples to ensure that they would be comparable across the three assessments. Therefore the numbers in the following graph may be slightly different from those reported separately.

Average Scale Scores for 2001, 2006 and 2011



Between 2001 and 2011, Ontario French-language students showed statistically significant improvements in reading achievement. Although the average scale score among Ontario English-language students was higher in 2011 than in 2001, the difference was not statistically significant. There was a statistically significant improvement in reading achievement in 10 jurisdictions and a statistically significant decline in four jurisdictions between 2001 and 2011. There was a statistically insignificant difference in nine jurisdictions between 2001 or 2006 and 2011.

Average Scale Scores by Gender for 2001, 2006 and 2011



In Ontario, between 2001 and 2011, the improvement in achievement was statistically significant among boys, but among girls, the average scale score remained the same. In 2011 the achievement gaps between boys and girls were statistically significant for both English- and French-language students.

Reading Literacy in PIRLS

PIRLS defines reading literacy as “the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment.”

PIRLS focuses on three aspects of students' reading literacy:

- processes of comprehension,
- purposes for reading and
- reading behaviours and attitudes.

PIRLS Test Structure

Processes of comprehension and purposes for reading are the foundation of the PIRLS written assessment of reading comprehension. Below are the percentages of the reading assessment devoted to these two aspects.

Purposes for reading are divided into two categories:

Reading

- 1) for literary experience (50%) and
- 2) to acquire and use information (50%).

The following processes of comprehension are assessed by PIRLS:

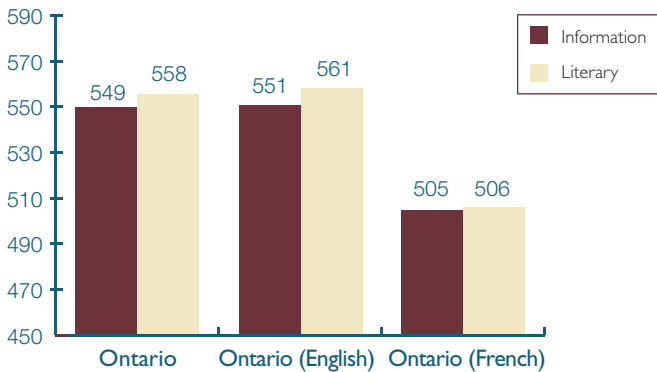
- 1) focus on and retrieve stated information (20%);
- 2) make straightforward inferences (30%);
- 3) interpret and integrate ideas and information (30%) and
- 4) examine and evaluate content, language and textual elements (20%).

A Student Questionnaire addresses students' attitudes toward reading and their reading habits. In addition, questionnaires are given to parents, teachers and school principals to gather information about students' home and school experiences as they develop reading literacy. To provide information about

national contexts, countries complete questionnaires about reading goals and curricula. A profile of reading education in each jurisdiction is compiled.

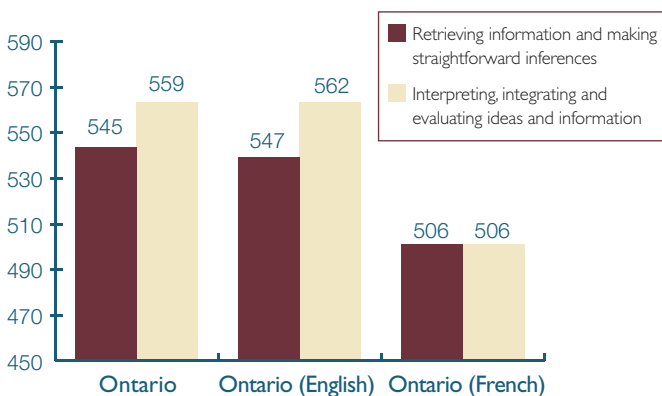
The graphs below show the average scale scores for the two purposes for reading and for the processes of reading comprehension. The four processes identified above have been collapsed into two categories for reporting.

Average 2011 Scale Scores by Type of Reading Passage



The average scale score for literary passages was higher than the average score for information passages among Ontario English-language students, and it was relatively the same for both types of passages among Ontario French-language students. From 2001 to 2011, there was no significant improvement in reading achievement with respect to information and literary passages, although there has been a trend toward improvement since 2001.

Average 2011 Scale Scores by Type of Reading Comprehension Process



Students in Ontario demonstrated higher reading achievement on questions requiring the interpretation, integration and evaluation of ideas. Although there was a general trend toward improvement from 2001 to 2011, the differences were not statistically significant.

Ontario Results Related to Home and School Supports for Literacy

Student reading skills are determined to a large extent by home and school environment, including parents' reading habits, students' attitudes and out-of-school activities, teachers' background, school climate and educational resources. PIRLS 2011 provides interesting insights from the home, student, teacher and school questionnaires about how these factors relate to student reading performance in Ontario (see chapters 3 to 6 of the PIRLS 2011 Canadian report).

In Ontario, the results are as follows:

- Parents like reading: Ontario students whose parents like to read had an advantage of 31 points over those students whose parents do not like to read.
- Students like reading: Ontario students who like reading outperformed those who do not like reading by 54 points.
- Student confidence in reading: Ontario students who feel confident in their reading abilities outperformed those who do not feel confident by 90 points.
- Students lacking prerequisite knowledge and skills: Ontario students in Grade 4 classrooms where teachers felt that their instruction was limited by students lacking prerequisite knowledge and skills had a disadvantage of 34 points in relation to those in classrooms where instruction was not limited at all.
- School emphasis on academic success: Ontario students attending schools with very high emphasis on academic success (as reported by principals) had an advantage of 30 points over students attending schools with medium emphasis. (There are no schools with low emphasis on academic success in Ontario and Canada overall).
- Bullying at school: Ontario students who reported being bullied often at school had a disadvantage of 41 points in relation to those students who said they are almost never bullied.

PIRLS Curriculum Match

The content of the PIRLS assessment matches the overall reading expectations up to the end of Grade 4 in *The Ontario Curriculum, Grades 1–8: Language* (2006) and *Le curriculum de l'Ontario, de la 1^{re} à la 8^e année – Français*, 2006.

Similarly, the processes of reading comprehension used for PIRLS 2011 matched to specific expectations in the 2006 Ontario language curriculum.

Sample reading passages, questions and scoring guides can be found in Appendix D of the PIRLS 2011 International Report.

Table 4: Curriculum Match

PIRLS Frameworks (2011)	<i>The Ontario Curriculum, Grades 1–8: Language</i> (2006) Grade 4 Reading Expectations
Reading for literary experience and to acquire and use information	<p>Students will</p> <ul style="list-style-type: none"> ■ read a variety of texts from diverse cultures, including literary texts (e.g., myths, plays, short stories, chapter books, letters, diaries, poetry), graphic texts (e.g., graphic novels, diagrams, brochures, graphs and graphic organizers, charts and tables, maps), and informational texts (e.g., textbooks, non-fiction books on a range of topics, print and online newspaper and magazine articles or reviews, print and online encyclopedias and atlases, electronic texts such as e-mails or zines)
Focus on and retrieve stated information	<ul style="list-style-type: none"> ■ demonstrate understanding of a variety of texts by summarizing important ideas and citing supporting details (e.g., make an outline of a section from a textbook in another subject to prepare for a test)
Make straightforward inferences	<ul style="list-style-type: none"> ■ make inferences about texts using stated and implied ideas from the texts as evidence
Interpret and integrate ideas and information	<ul style="list-style-type: none"> ■ extend understanding of texts by connecting the ideas in them to their own knowledge, experience, and insights, to other familiar texts, and to the world around them
Examine and evaluate content, language and textual elements	<ul style="list-style-type: none"> ■ express opinions about the ideas and information in texts and cite evidence from the text to support their opinions ■ identify a variety of text features and explain how they help readers understand texts (e.g., the back cover copy for a book helps readers decide whether the book will interest them; titles, subtitles, captions, labels, a menu allow the reader to skim a text to get a general idea of what it is about) ■ identify various elements of style—including alliteration, descriptive adjectives and adverbs, and sentences of different types, lengths, and structures—and explain how they help communicate meaning (e.g., alliteration and rhythm can emphasize ideas or help convey a mood or sensory impression) ■ recognize a variety of organizational patterns in texts of different types and explain how the patterns help readers understand the texts (e.g., comparison in an advertisement; cause and effect in a magazine or newspaper article)

Improvement Over Time: PIRLS and the Primary and Junior EQAO Assessments

In order to position PIRLS in the context of the EQAO assessment program, an analysis of the *Frameworks*, assessment materials, scoring guides and performance levels was conducted to determine the degree of congruence between the Grade 4 PIRLS assessment and the reading components of the primary and junior EQAO assessments administered in Grades 3 and 6, respectively. The analysis showed that the reading constructs and their theoretical underpinnings, as well as the benchmarks (PIRLS) and performance levels (*The Ontario Curriculum*) of the PIRLS and EQAO reading assessments are very similar. The reading passages for PIRLS are somewhat more complex.

Although the Ontario performance levels and the international benchmarks define similar skills at the four levels, the percentages cannot be compared directly. In 2001, the cut points for PIRLS were set to a predetermined percentage of students at each level. It is useful to examine changes over time for the PIRLS and EQAO assessments. Table 5 shows the difference in the percentage of students at each performance level for PIRLS and EQAO between 2001 and 2011. The results for PIRLS are combined for English- and French-language students because the benchmark results are not available separately.

Table 5: Changes from 2001 to 2011 in Percentage of Students at PIRLS and Ontario Performance Levels in Reading

PIRLS Benchmark/Ontario Level of Achievement	Assessment	Percentage-Point Change from 2001 to 2011
Advanced International Benchmark/Ontario Achievement Level 4	PIRLS (English and French)	0
	EQAO English Primary	+3
	EQAO English Junior	+3
	EQAO French Primary	+20
	EQAO French Junior	+13
High International Benchmark/Ontario Achievement Level 3 (provincial standard)	PIRLS (English and French)	+4
	EQAO English Primary	+12
	EQAO English Junior	+16
	EQAO French Primary	+10
	EQAO French Junior	+15
Intermediate International Benchmark/Ontario Achievement Level 2	PIRLS (English and French)	+1
	EQAO English Primary	-4
	EQAO English Junior	-11
	EQAO French Primary	-12
	EQAO French Junior	-16
Low International Benchmark/Ontario Achievement Level 1	PIRLS (English and French)	+1
	EQAO English Primary	-3
	EQAO English Junior	-4
	EQAO French Primary	-10
	EQAO French Junior	-4

The changes in achievement for the PIRLS and EQAO assessments are in the same direction, with most of the percentages at Levels 3 and 4 and the Advanced and High international benchmarks larger in 2011. The percentage-point changes for the EQAO assessments tend to be larger than those for PIRLS. A possible reason for this is that the EQAO assessments measure *Ontario Curriculum* expectations, which are the basis for reading instruction in

Ontario. For the EQAO assessments, the differences tend to be larger among French-language students than among English-language students, except for the High international benchmark, where they are similar. This is consistent with the PIRLS finding, in which the change in average scale score since 2001 was larger among French-language students than among English-language students in Ontario.

Appendix A

The four international benchmarks for student achievement in reading are defined below:

Low Benchmark

When reading literary texts, students can

- recognize explicitly stated detail and
- locate a specific part of the story and make an inference clearly suggested by the text.

When reading information texts, students can

- locate and reproduce explicitly stated information that is readily accessible, for example, at the beginning of the text or in a clearly defined section and
- begin to make a straightforward inference clearly suggested by the text.

Intermediate Benchmark

When reading literary texts, students can

- identify central events, plot sequence and relevant story details;
- make straightforward inferences about the attributes, feelings and motivations of main characters and
- begin to make connections across parts of the text.

When reading information texts, students can

- locate and reproduce one or two pieces of information in the text;
- make straightforward inferences to provide information from a single part of the text and
- use subheadings, textboxes and illustrations to locate parts of the text.

High Benchmark

When reading literary texts, students can

- locate relevant episodes and distinguish significant details embedded across the text;
- make inferences to explain relationships between intentions, actions, events and feelings, and give text-based support;
- recognize the use of some textual features (e.g., figurative language, abstract message) and
- begin to interpret and integrate story events and character actions across the text.

When reading information texts, students can

- recognize and use a variety of organizational features to locate and distinguish relevant information;
- make inferences based on abstract or embedded information;
- integrate information across the text to recognize main ideas and provide explanations;
- compare and evaluate parts of a text to give a preference and a reason for it and
- begin to understand textual elements, such as simple metaphors and author's point of view.

Advanced Benchmark

When reading literary texts, students can

- integrate ideas across a text to provide interpretations of a character's traits, intentions and feelings, and provide full-text support;
- interpret figurative language and
- begin to examine and evaluate story structure.

When reading information texts, students can

- distinguish and interpret complex information from different parts of text, and provide full text-based support;
- understand the function of organizational features and
- integrate information across a text to sequence activities and fully justify preferences.

Appendix B

Standard Error Statistic, Confidence Interval and Significant Difference

In PIRLS, the average achievement scale scores were based on samples of students; therefore, they are only estimates of the actual average achievement scale scores the entire population of students would have demonstrated had they all taken the assessment. Because an estimate is rarely exact, it is common practice to provide a range of scores within which the actual achievement results might fall. This range of scores is called a **confidence interval** and represents the high- and low-end points between which the actual achievement results should fall 95% of the time. The high- and low-end points are calculated by multiplying the **standard error statistic** by 1.96. In PIRLS reports, the standard error is presented in parentheses alongside the achievement score.

In this report, the term “**statistically significant difference**” means that differences are probably “real” differences and not due to chance.

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