CHAPTER 9: THE PROGRESS IN INTERNATIONAL READING LITERACY STUDY

The Progress in International Reading Literacy Study (PIRLS) was developed by the International Association for the Evaluation of Educational Achievement (IEA) to assess reading literacy in Grade 4 students. This assessment started in 2001 and occurs every five years. It is currently the only international assessment that measures reading skills at this grade level.

In 2011, PIRLS was administered in Newfoundland and Labrador. This was also the first year that the majority of Canadian provinces took part in PIRLS. This meant pan-Canadian results could be published.

Assessing reading literacy

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" (Labrecque, 2012).

PIRLS 2011 focused on assessing the following three aspects of reading literacy:

(1) **The purposes of reading** (i.e., reading for literary experience and reading to acquire and use information);

(2) **The processes of comprehension** (i.e., focusing and retrieving explicitly stated information; making straightforward inferences; interpreting and integrating ideas and information; and examining and evaluating content, language, and textual elements); and

(3) **Behaviours and attitudes toward reading**.

How are results reported?

The PIRLS assessment reports average reading scores on a standardized scale ranging from 0 to 1000 with a mean (or average) of 500 with a standard deviation of 100. This allows comparisons to be made among different countries and jurisdictions.

Since, the results are based on a sample of students and not the entire group, average scores must be interpreted along with their confidence interval (CI). Typically, a 95% CI is used and this provides a range of scores where the "true" achievement level might fall. In other words, one can be confident that the actual achievement level of all students would fall somewhere in the established range 19 times out of 20 (95% of the time), if the assessment was repeated with different samples randomly drawn from the same student population. For the sake of comparisons, if the confidence intervals overlap, the differences are not considered to be statistically significant. When the confidence intervals overlap, the differences are typically significantly different. In other words, this is a real difference that cannot be attributed to chance.

The remainder of the chapter will focus on how this province's students performed on PIRLS 2011 in each of the areas assessed. Unless otherwise noted, the information provided was collected from the report written by Mélanie Labrecque, Maria Chuy, Pierre Brochu, and Koffi Houme -- *PIRLS 2011 Canada in Context.* This report can be viewed at http://cmec.ca/Publications/Lists/Publications/Attachments/294/PIRLS_2011_EN.pdf

How did students fare?

Approximately 325,000 students from around the world participated in PIRLS 2011. This included approximately 23,000 Canadian students from about 1,000 schools. Provincially, 2,135 students took part in the assessment. In total, nine Canadian jurisdictions participated in PIRLS: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick (French), Nova Scotia, and Newfoundland and Labrador.

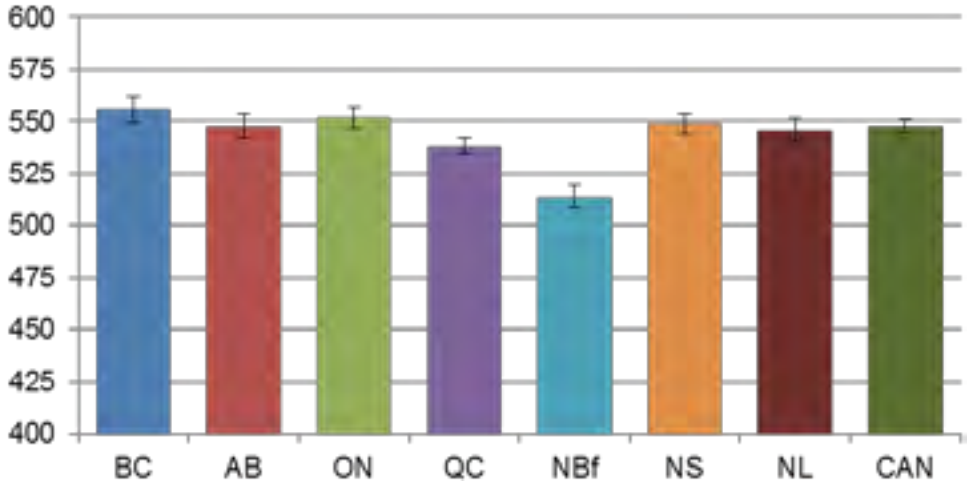
Overall, Canadian students performed quite well on PIRLS achieving a higher average score than most participating countries. The Canadian average score was 548, which is well above the PIRLS scale center point of 500. There were only seven of 45 countries who participated where the average score was significantly higher than Canadian students: Hong Kong SAR (Special Administration Region), Russian Federation, Finland, Singapore, Northern Ireland, United States, and Denmark. There are six countries performing as well as Canada: Croatia, Chinese Taipei, Ireland, England, Netherlands, and Czech Republic.

Figure 23 reports the average scores of the various Canadian provinces. These scores ranged from 514 in New Brunswick (French) to 556 in British Columbia. Only Quebec and New Brunswick (French) had significantly lower average scores than that of Canada overall. There was no statistical difference among the five provinces with the highest average scores. In Newfoundland and Labrador, the average score was 545. In other words, this province's students show the same degree of reading skill as those in British Columbia, Alberta, Ontario and Nova Scotia.

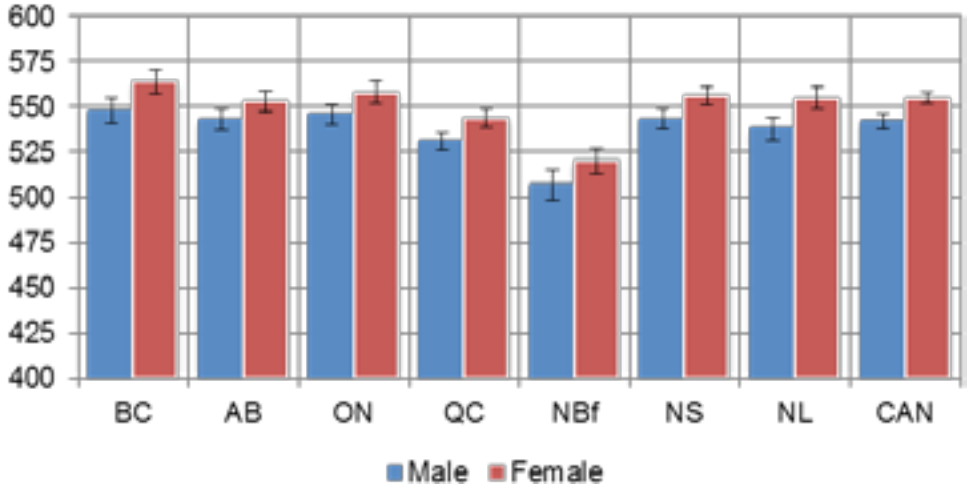
Along gender lines, girls perform better than boys in reading. This was seen in each of the Canada provinces (see figure 23b). In Canada, girls outperformed boys by 13 points (an average score of 555 for girls compared to 542 for boys). Across the provinces, the gender difference ranged from 10 points in Alberta to 16 points in British Columbia and Newfoundland and Labrador. In all but two of the provinces (Alberta and New Brunswick- French), the average score of girls was significantly higher than boys.

Figure 23: Average reading scores

(a) Canadian jurisdictions



(b) Gender differences



(Source: Table 23)

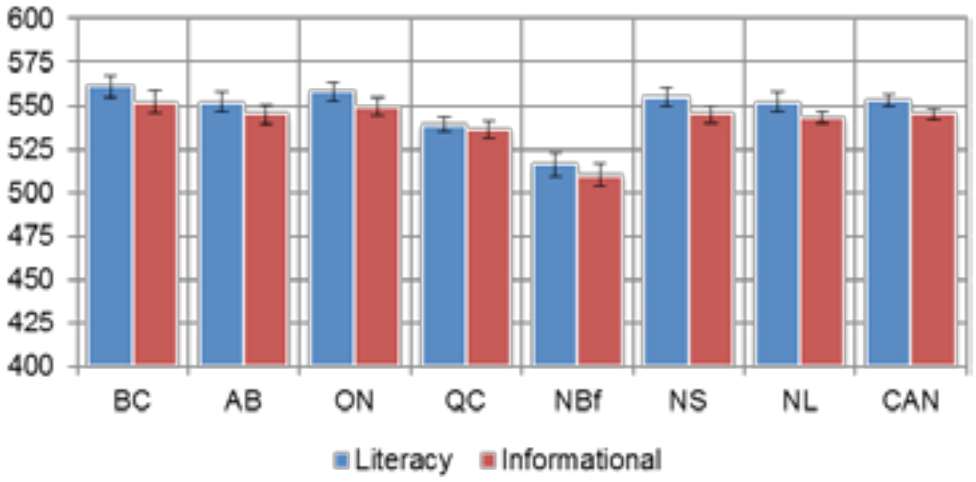
Reading purpose and comprehension

Figure 24a reports the average scores on the 'Reading Purposes' and 'Comprehension Processes' sections. For reading purposes, the results show that Canadian students are performing significantly better in literary reading than in informational reading. This was also seen in each of the provinces. In Newfoundland and Labrador, the average literacy and informational scores were approximately 552 and 543.

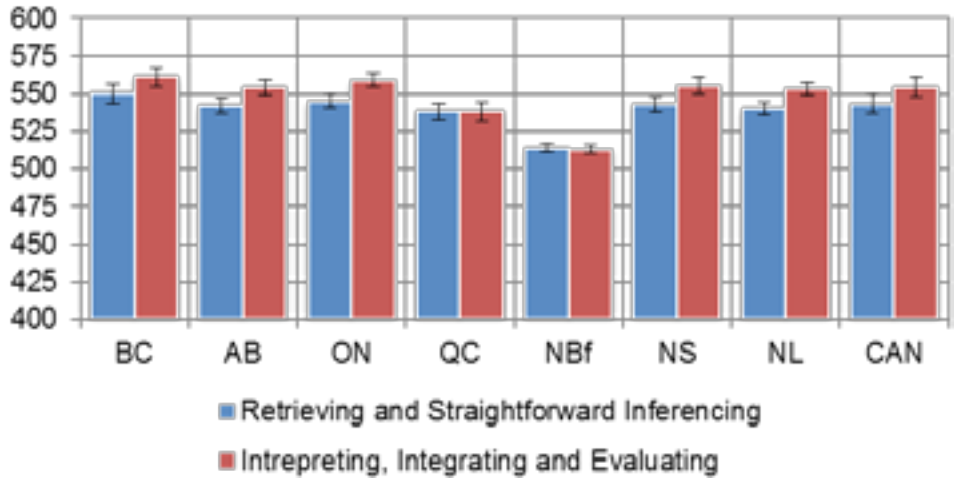
For comprehension processes, students tend to perform better on the 'Interpreting, Integrating and Evaluation' section. In many provinces, including Newfoundland and Labrador, and Canada as a whole, this average was significantly higher than the average score on the 'Retrieving and Straightforward Inferencing' section (see figure 24b).

Figure 24: Assessing reading skills

(a) Reading purposes



(b) Comprehension processes



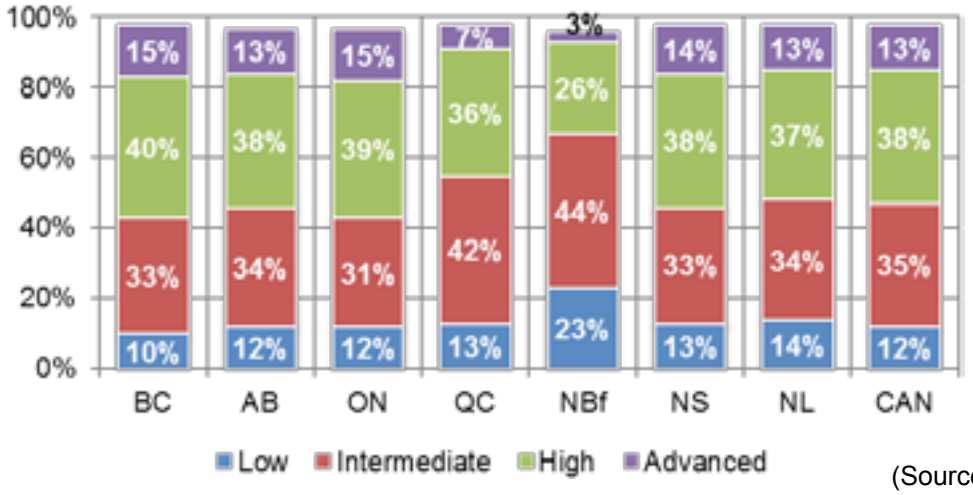
(Source: Table 24)

Reading proficiency

PIRLS created four international benchmarks to assess reading performance ranging from low (students can demonstrate basic reading skills) to advanced (students can demonstrate an in-depth understanding and grasp of reading). These four levels are defined in Appendix B.

Canada is among the countries with the highest proportion of advanced students. The results showed that 13% of students reached the highest level of performance, the Advanced International Benchmark, which is well above the international median (8%). Figure 25 reports the percentage of students at each level for each of the provinces involved. With the exception of Quebec and New Brunswick (French), similar percentages were seen across the country. For example, the percentage of students reaching the Advanced International Benchmark ranged from 13% in both Newfoundland and Labrador and Alberta to 15% in British Columbia and Ontario. For Quebec and New Brunswick (French) the percentages were 7% and 3% respectively.

Figure 25: Reading proficiency across Canada



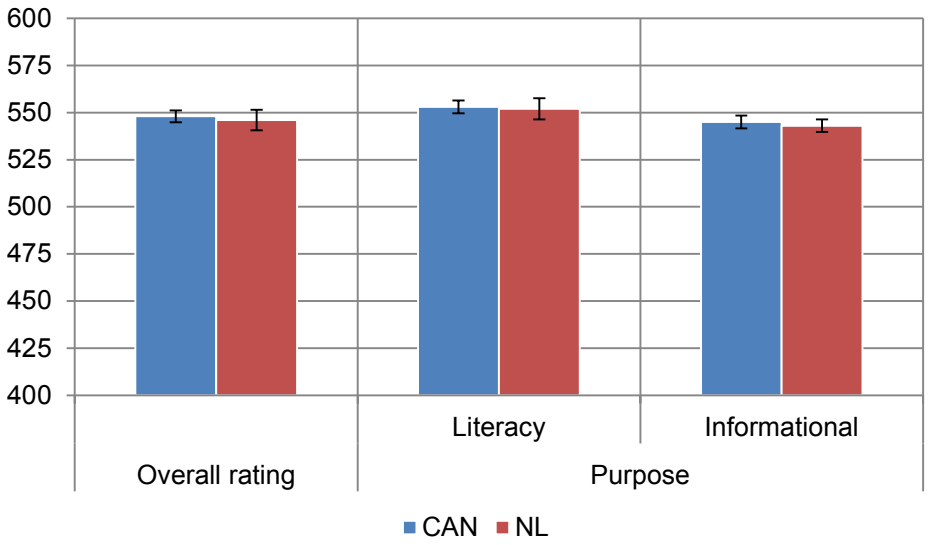
(Source: Table 25)

Summary

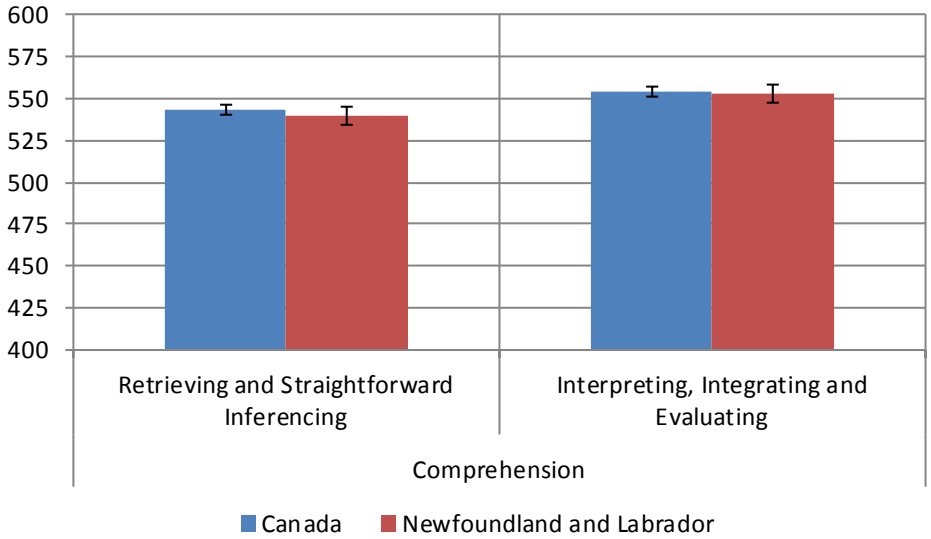
Grade 4 students in the province performed very well on the PIRLS. In each area assessed, the average scores were consistently among the highest in Canada. As shown in figure 26, there was no real difference between provincial and Canadian average scores. The PIRLS report also examined contextual information on factors that could affect student performance, such as the home and school environment. The results showed that Newfoundland and Labrador ranked first in Canada in several categories, including: teachers with the most training; teachers with the most experience; teachers who were mostly satisfied with their work conditions; and teachers who report schools were safe and orderly. The province also scored best in the country on issues related to student discipline and bullying (Department of Education, 2013, p.20).

Figure 26: Student performance in Canada and Newfoundland and Labrador

(a) Average scores in overall reading and reading purpose



(b) Average score on comprehension processes



(Source: Table 26)