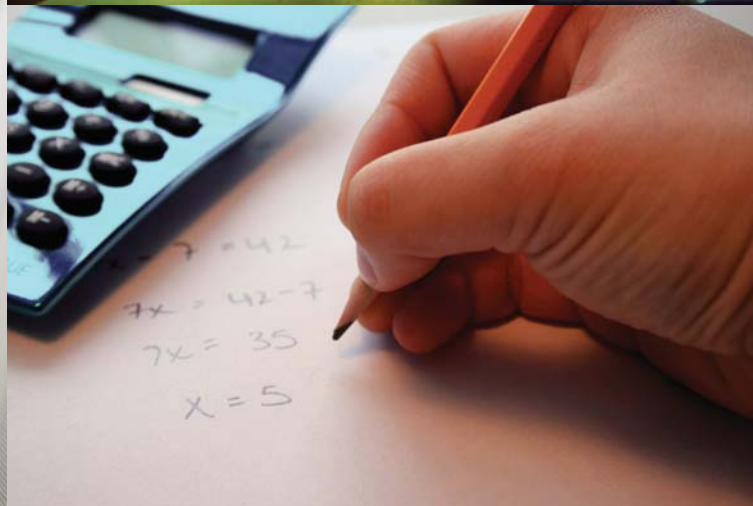


PCAP-13 2007

Reading, Mathematics, and Science
HIGHLIGHTS



The PCAP-13 2007 Assessment

The Pan-Canadian Assessment Program is the most recent commitment from the Council of Ministers of Education, Canada (CMEC) to inform Canadians on how well their education systems are meeting the needs of students and society. As well, the information gained from such an assessment gives each minister of education a basis for examining the curriculum and other aspects of their school system.

Assessment design

Based on a review of contemporary research and the pan-Canadian curricula from all jurisdictions in each subject area for the age group, the test development included a bilingual framework writing team, a bilingual item development team, a validation process, and field testing, all under the constant review by and feedback from the jurisdictions and their particular subject experts.

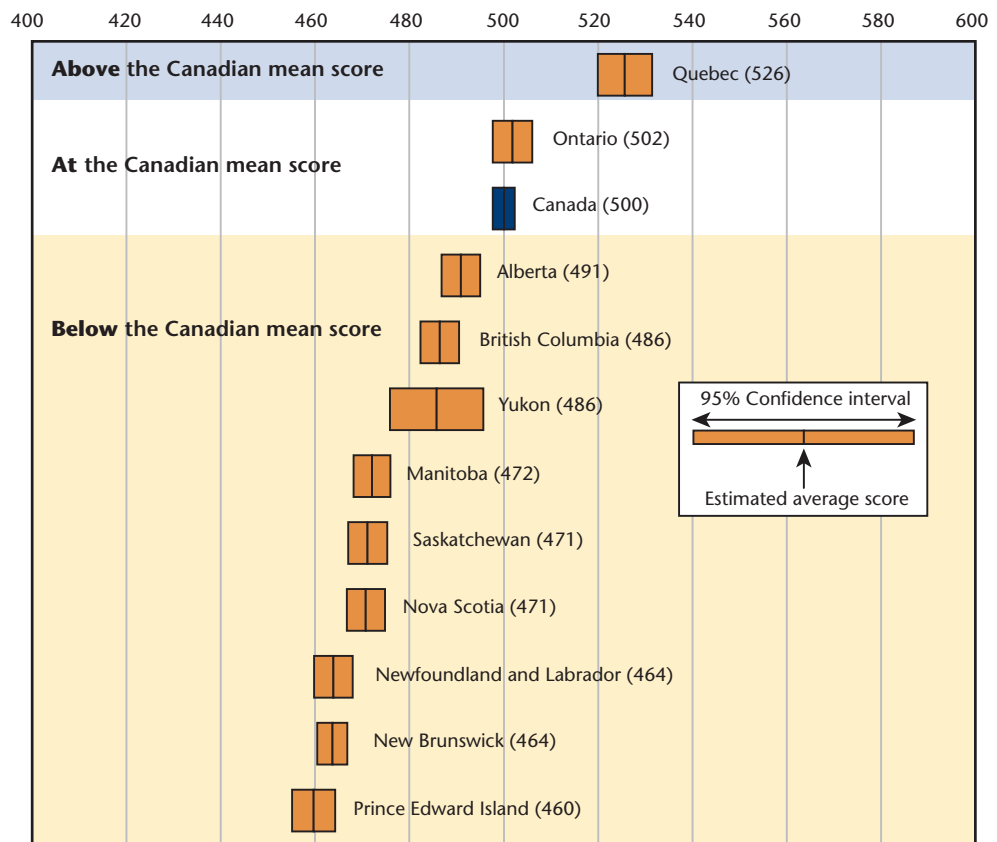
The data acquired through the administration of this first PCAP instrument indicate that the design and content goals of the testing were sound, engaging students effectively and providing reliable and valid data on specific curriculum-based objectives across the country. The range of text types and subject matter appears to have engaged students sufficiently to allow them to demonstrate their prowess in reading, science, and mathematics.

Participants

In the spring of 2007, the test was administered to a random sample of schools and students with random assignment of booklets, all representative of the Canadian cohort of 13-year-olds and of the individual jurisdictions. Consequently, approximately 30,000 13-year-olds wrote the assessment. Approximately 15,000 students wrote in English and 5,000 in French for the reading component, while 7,500 wrote mathematics and science in English and 2,500 students wrote them in French. Students were expected to write for 90 minutes, with breaks deemed appropriate by the administrator, and then to complete a context questionnaire at the back of their test booklet.

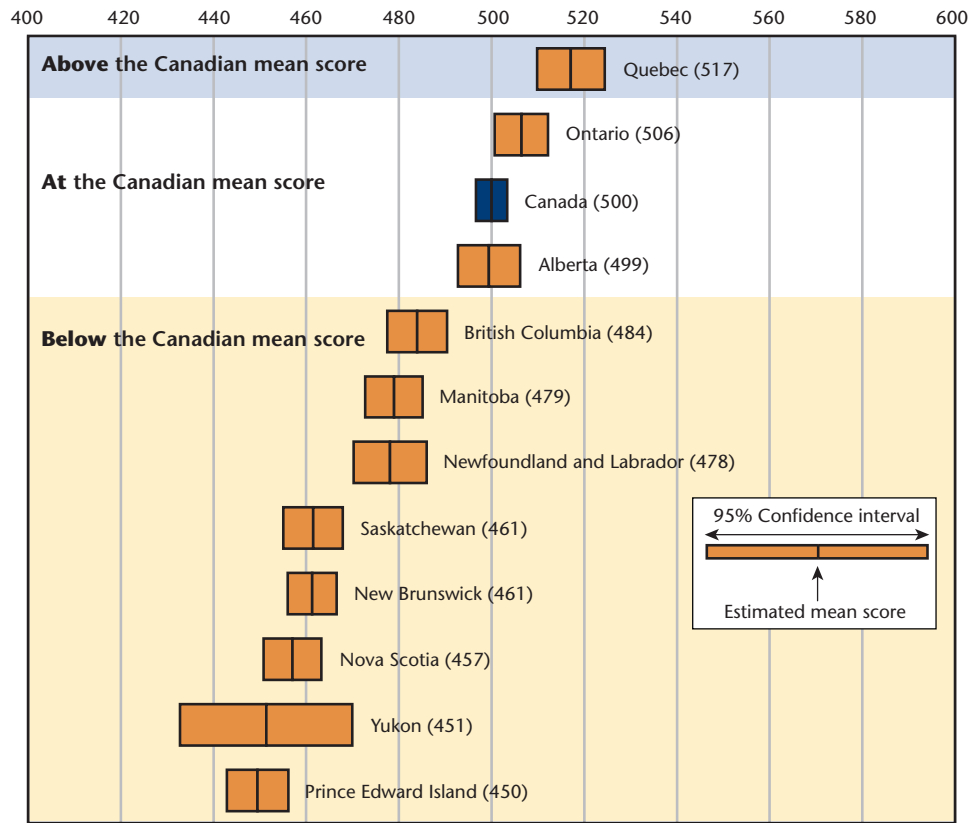
Assessment results

Results in reading by jurisdiction



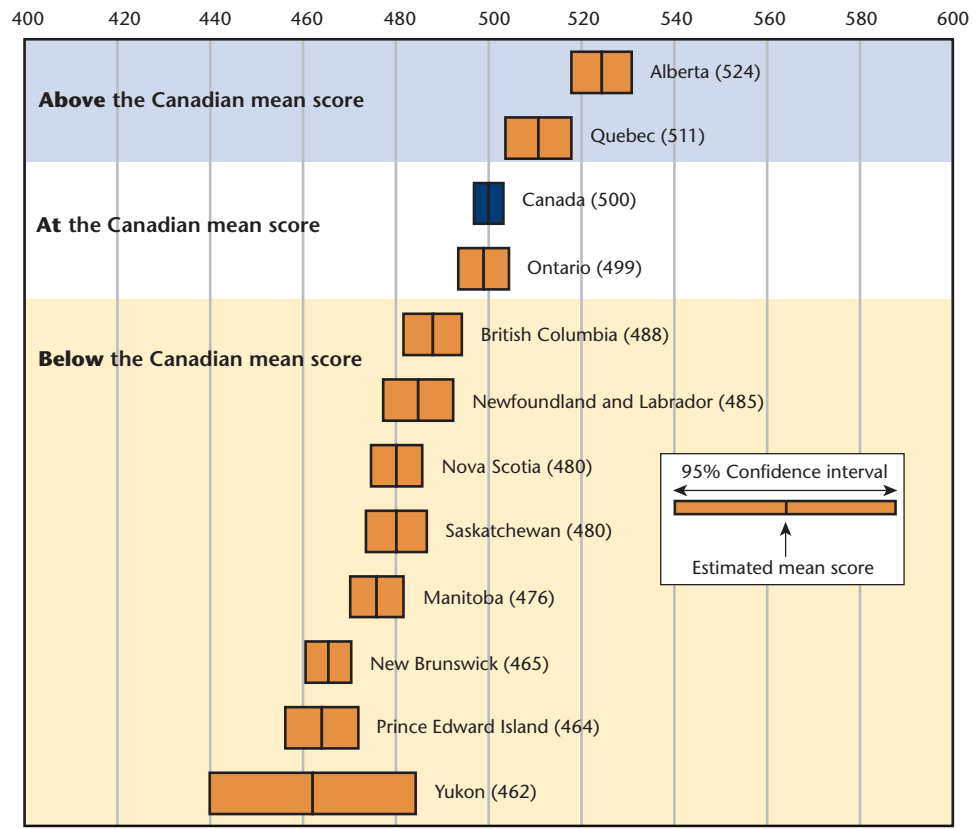
- The mean score in reading of students overall in Quebec is significantly higher than that of Canadian students overall.
- The mean score in reading of students overall in Ontario is not significantly different from that of Canadian students overall.
- The mean score in reading of students responding in English in Ontario is significantly higher than that of Canadian students overall who responded in English.
- The mean scores in reading of students responding in English in British Columbia, Alberta, and Yukon are not significantly different from that of Canadian students overall who responded in English.
- The mean score in reading of students responding in French in Quebec is not significantly different from that of Canadian students overall who responded in French.
- Overall, 88% of all students across Canada performed in reading at level 2 or above, the expected level for the age group. The percentage ranges between 81% and 90% across all participating jurisdictions.
- Female students in Canada achieved a mean score in reading that was significantly higher than that of male students. Furthermore, the proportion of female students performing at level 3 is higher than that of male students at this level.

Results in mathematics by jurisdiction



- The mean score in mathematics for students in Quebec is significantly higher than that of Canadian students overall.
- The mean score in mathematics for students in Alberta and Ontario is not significantly different from that of Canadian students overall.
- In the mathematics assessment, there are no significant differences between the mean scores achieved by male students and those of female students in Canada overall.

Results in science by jurisdiction



- The mean score in science for students in Alberta and Quebec is significantly higher than that of Canadian students overall.
- The mean score in science for students in Ontario is not significantly different from that of Canadian students overall.
- In the science assessment, there are no significant differences between the mean scores achieved by male students and those of female students in Canada overall.

Contents of the public report

The public report describes the purpose and process of developing the assessment, which involved pan-Canadian expertise, collaboration, and sound practices in producing valid instruments to yield reliable data. The conception of a framework for each domain was then summarized so that specific outcomes to be measured could be described.

The public report presents the results of the first PCAP-13 assessment in reading, mathematics, and science and shows the mean score for Canada overall and for individual jurisdictions, including breakdowns by language and gender, both overall and by individual jurisdiction.

In addition, for reading as the main domain, the data show student achievement at three levels and in three subdomains, as well as by jurisdiction and by language.

The first chapter of the report provides pan-Canadian results. Subsequent chapters provide reports for individual participating jurisdictions, beginning with context descriptions of the learning environment and programs offered in that particular jurisdiction. The charts of students' results in each jurisdiction are shown in comparison with the Canadian results overall.

Key elements of the reading instrument and results

One-third of the test items in the reading assessment booklets demanded “extended constructed responses” from students. These items provided an opportunity for students to apply their knowledge and skills in reading strategies in a single integrated act of reading. The results of the assessment of specific reading practices (the subdomains of Comprehension, Interpretation, and Response to text, which are the organizing and key principles of reading curricula across Canada) provided significant data, in view of their students' achievement levels, about how successful jurisdictions have been in implementing their goals for reading. The data indicate that generally in all jurisdictions 13-year-olds engage the three subdomains consistently or to an equal degree. The majority of students appeared to acknowledge and attend to the demands of all three reading subdomains with some success.

Reporting reading achievement by levels of performance

On this assessment, the scores of all students are expressed on a standard scale from 0 to 1000, with the average for the population set at 500. As a result of this conversion, the scores of two-thirds of all participating students fell within the range between 400 and 600 points, which represents a “statistically normal distribution” of scores.

These “scale scores” have been summarized in three levels of proficiency, with students being assigned to the highest level at which they can perform most of the tasks. In this PCAP-13 Reading Assessment, most 13-year-old students were expected to perform at level 2; a student performing at level 3 was able to correctly respond to test items with the most challenging demands as well as to items requiring the least challenging demands.

Description of performance

Level 2 Scores: 380 – 575

- The student comprehends, interprets, and responds to a variety of texts in a clear and reasonable manner.
- The student understands both directly stated information and information implied by the text.
- The student connects general statements and supporting details, draws conclusions about the broader meaning and intent of the text, and interprets specific parts of the text based on inferences and figurative language.
- The student demonstrates knowledge of how texts are structured and organized to accomplish a variety of purposes.
- The student's personal and critical responses are supported with references to the text and other sources.

Further results are available in the public report, *PCAP-13 2007: Report on the assessment of 13-year-olds in Reading, Mathematics, and Science*. This report is available without charge at the Council of Ministers of Education, Canada or on the CMEC Web site at www.cmec.ca/pcap.

Using the data obtained from this assessment, researchers are preparing additional analyses that CMEC will publish in the coming months.