



LEADERSHIP, ADVOCACY AND SERVICE FOR MANITOBA'S PUBLIC SCHOOL BOARDS

THE FACTS ON PCAP (THE PAN-CANADIAN ASSESSMENT PROGRAM) 2019

WHAT IS PCAP?

Every three years, starting in 2007, Canadian students in Grade 8 participate in writing paper-based national test that is designed to measure how these students perform, in reading, math and science. The total time required to complete the test is 90 minutes for the cognitive or performance-based subject matter questions, with an additional 30 minutes for additional questions that help to provide information concerning their background context. The test has been created by the Council of Ministers of Education, Canada (or CMEC) and is written by students across Canada's ten provinces in both majority and minority language schools (English and French).

For the latest test, written in spring, 2019, 32,777 Grade 8 students participated across 1,597 schools nationwide. The test is not written by students in Canada's northern territories and students enrolled in federally funded First Nations schools do not write the test either. The major focus subject tested by PCAP in 2019 was mathematics, with minor subject focus on reading and science. Every three years, the major and minor focus areas rotate among these three subject matters (please see weblink provided at the end of this document).

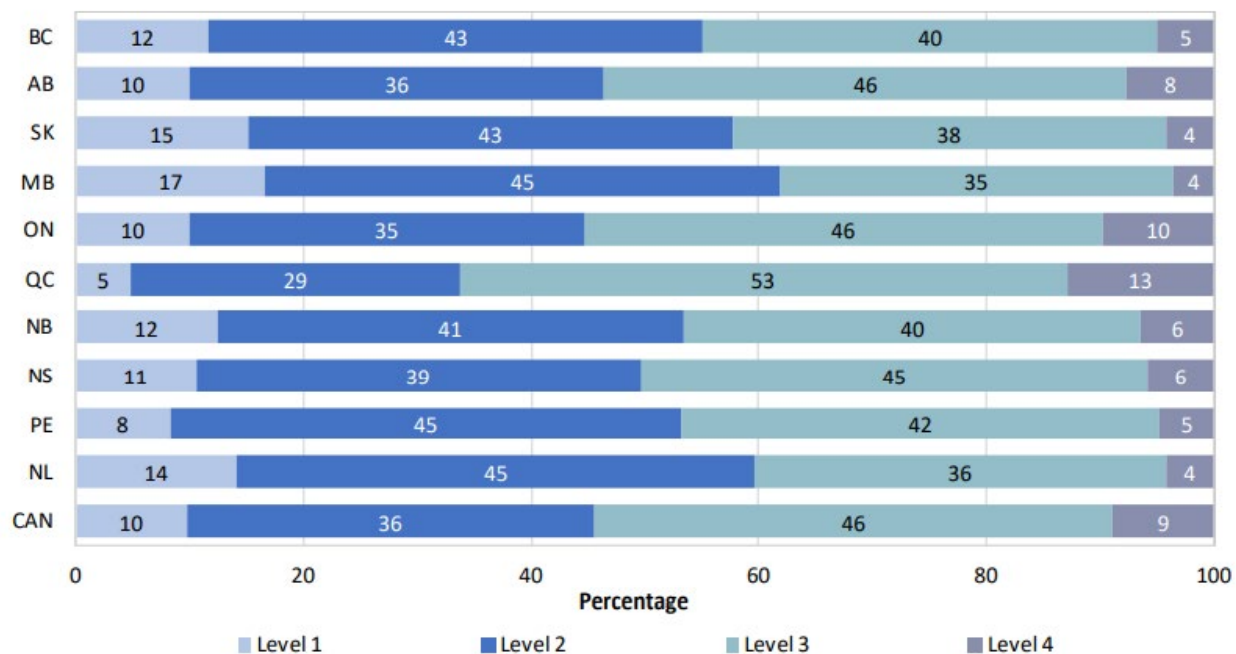
HOW DID MANITOBA'S STUDENTS DO ON THE TEST?

In Manitoba, 3,262 Grade 8 students (out of an approximate total of 13,000 students) in 174 schools participated in writing the test. Manitoba's students' overall test performance places our province in close proximity to the achievement of all other students nationwide, as based on the CMEC "mean" scores. The 2019 PCAP test shows that this fact remains true across mathematics, reading and science. Manitoba's Grade 8 students achieved an overall "mean" score of 475 in mathematics, 481 in reading, and 493 in science.

These scores tell us about the general level of skill or ability of our students, and explain how much they know and what they can do in each of the tested subject areas. Each score indicates that the vast majority of Manitoba students are able to perform according to Level 2 or 3: they are able to achieve at or above the expected level of achievement for their grade level in each tested subject area. PCAP also tells us that, in terms of the major focus area (mathematics): 83 percent or over eight out of ten Manitoba students, perform at or above the normally expected level of proficiency for this subject matter (see Figure 1.2 on the next page, from PCAP 2019 Report, p. 28, all statistics rounded). This overall result tends to reflect provincial comparability across all of Canada, with minor variance when Levels 2 and 3 achievement are combined.

To obtain a better understanding of what each of the mathematics scores entail, as defined by CMEC, please consult “Results in mathematics by average score” in the Report (pp. 29-31). Definition of scores in tested subject areas can also be found across the 2007, 2010, 2013 and 2019 PCAP Reports, which are each accessible at: [https://www.cmec.ca/240/Pan-Canadian_Assessment_Program_\(PCAP\).html](https://www.cmec.ca/240/Pan-Canadian_Assessment_Program_(PCAP).html)

Figure 1.2 Percentage of students at each performance level in mathematics



WHAT “GRADE” DID OUR STUDENTS GET ON THE TEST?

Unlike most tests, PCAP is not based on traditional “grading” scales (for example, letter grade scales based on “A, B, C, D, F”, or 100 point scales based on percentages). Instead, the scores achieved by Manitoba’s students tend to reflect their overall knowledge and skill. Therefore, PCAP addresses positive or negative differences in proficiency and achievement over time, as compared to earlier test results.

The way that students answer questions on the test show us how much a student knows or what they can do, according to their overall level of ability or proficiency. The scores also show us where we need to focus so that, as a public school system, we can help students build upon their existing skills and proficiency by the time they graduate from high school.

Because PCAP serves as a benchmark for us to measure outcomes in subject matter areas over the span of time, we can learn whether our achievement reflects positive differences over time, steady results, or negative change. This then in turn helps us as a school system to know where to increase classroom efforts for even greater achievement in the future.

In these respects, according to the 2019 Report of PCAP, a positive change in mathematics overall was found in Manitoba as well as in British Columbia, Alberta, Quebec, New Brunswick, Nova Scotia, PEI, and

Newfoundland and Labrador, when compared to CMEC’s baseline year (2010). In reading, Manitoba demonstrated ongoing stability in student performance, alongside of British Columbia, Alberta, Saskatchewan and Ontario. Finally, in science, Manitoba students again show positive results over time, alongside of Saskatchewan, New Brunswick, Nova Scotia and PEI. Please see pages 49, 62 and 72 of the 2019 PCAP Report for these and other concluding observations.

HOW DO MANITOBA’S STUDENTS COMPARE TO OTHER STUDENTS?

The results and outcomes that are achieved by Manitoba’s students on PCAP tests have often been used for a variety of different purposes, one of which involves comparing Manitoba’s students with those in other provinces. While mean scores can be rank-ordered in such manner as to categorize results in ascending or descending order, from the highest to lowest score achieved, doing so also deserves far greater contextualization, in terms of how many students within each jurisdiction meet or exceed the expected level of performance for their grade level, and other important background factors, such as socioeconomic status. The latter factor can influence PCAP test score outcomes by a factor of up to 40 percent. This increases to 60 percent difference when both family background (including socioeconomic status) and school context are considered when calculating each province’s outcome.

PCAP 2019 – Achievement scores by province

Province	Reading	Math	Science
British Columbia	499	490	503
Alberta	506	507	521
Saskatchewan	495	481	500
Manitoba	481	475	493
Ontario	517	512	509
Quebec	494	537	488
New Brunswick	486	493	497
Nova Scotia	500	498	505
Prince Edward Island	505	497	510
Newfoundland and Labrador	500	480	499
Canada	505	510	505

PLEASE NOTE: Results in this Table are referenced from analyses (including greater detail and context) contained in Figures 1.3, 2.1 and 3.1 on pages 32, 56 and 66 of the 2019 PCAP Report.

Situated in the context of how many Manitoba students perform according to Level 2 and expectations in mathematics, reading and science (viewed longitudinally across PCAP tests), it remains true that over eight out of ten students continue to meet or exceed these standards, again reflecting a national trend.

WHAT ELSE DOES PCAP TELL US?

There is a lot of valuable information that PCAP 2019 tells us, based on Canada's and also Manitoba's scores in mathematics, reading and science. Results are further analysed in terms of gender and also by enrolment of students in majority or minority language schools. As the major subject focus for the 2019 test was mathematics, it is also possible to review results in terms of four critical proficiencies related to this subject area, including numbers and operations; geometry and measurement; patterns and relationships; and data management and probability (see Table 1.5 on page 34 of the Report). For information on Manitoba specific results under PCAP 2019, please also see pages 111-121 of the Report.

IN CONCLUSION: THE MANITOBA SCHOOL BOARD ASSOCIATION'S MAJOR OBSERVATIONS ABOUT PCAP 2019

Manitoba Grade 8 students remain on a competitive standing with their national peers, in all three of the subject areas (mathematics, reading and science) that were tested by PCAP in 2019. While Manitoba remains below the Canadian average in all three subject areas according to the mean scores set by PCAP, the overall margin of difference between the top performing and last performing jurisdiction remains insignificant. In mathematics (2019) and reading (2016), 83% of our students perform according to standard expectations at Levels 2 and 3 proficiency, with 82% in science (2013).

It is reasonable to expect that across Canada and in Manitoba, our students' abilities in reading, mathematics and science will change across PCAP tests. Where positive differences are noted, this reflects improvement between one test and another and generally reflects positive changes occurring within each province's school system in terms of the quality of teaching and learning. In this respect, PCAP concludes that Manitoba has experienced positive change over time in terms of all mathematics subdomains with positive improvement in both mathematics and science overall, and with stable performance in reading (see Tables 1.20, 1.22, 2.5 and 3.5 on pp. 49, 50, 62 and 72 in the 2019 Report).

Furthermore, in the tested subject area (mathematics) in 2019, Manitoba has demonstrated positive change overall in every subdomain (with three of four outcomes being deemed significant) and, in the context of both the English and French public school systems, and also for gender based results according to "boy" and "girl" identifiers, eleven out of sixteen of Manitoba's results in these respects are deemed to be significant by CMEC itself (see Tables 1.22, 1.23 and 1.24 on pp. 50-51 of the 2019 report).

Additional reports and analyses will be released by CMEC in future concerning the 2019 PCAP outcomes, including contextual and technical reports with additional details concerning provincial performance. Notwithstanding, the observations and facts provided in this fact sheet will remain valid and applicable.

WHERE CAN I GET MORE INFORMATION ABOUT PCAP?

English Report:

<https://cmec.ca/Publications/Lists/Publications/Attachments/426/PCAP2019-Public-Report-EN.pdf>

French Report:

<https://www.cmec.ca/Publications/Lists/Publications/Attachments/426/PCAP2019-Public-Report-FR.pdf>