



Pan-Canadian Assessment Program for 13-Year-Olds

(PCAP-13 2007)

FACT SHEET

What is PCAP?

The Pan-Canadian Assessment Program (PCAP) has replaced CMEC's School Achievement Indicators Program (SAIP) as a cyclical program of pan-Canadian assessments of student achievement in reading, mathematics, and science. The first assessment of PCAP-13 took place in the spring of 2007. CMEC will continue to use PCAP-13 to assess student performance in reading, mathematics, and science, but will allow for other subjects to be assessed as the need arises.

Why did CMEC develop PCAP?

Canadians have long been interested in how well their education systems are meeting the needs of students and society. To provide information on the quality of education, the provinces and territories, through CMEC, developed PCAP to assess the performance of students in three core subjects. Information from both student performance and the contextual questionnaires together with the review mechanisms of individual jurisdictions provides ministers of education with a basis for examining their curricula as well as their policies and practices for the learning environment of their students.

Why did CMEC replace SAIP with PCAP?

In the spring of 2003, CMEC approved the development of the new pan-Canadian assessment program to replace SAIP in order to reflect changes made in jurisdictional curriculum and practices that were based on contemporary research about learning environments for key subject areas — reading, mathematics, and science. The new program also recognizes the increased emphasis that jurisdictions now place on international assessments that also assess performance in those subject areas. With PCAP, the jurisdictions will be able to validate their results for 13-year-olds against other jurisdictional, Canadian, and international results.

Will PCAP replace provincial and territorial assessments?

PCAP is designed to complement existing assessments in each province and territory, providing Canada-wide data on the achievement levels attained by 13-year-old students across the country. The same cohort (group) of students will be assessed again in 2009 through the Programme for International Student Assessment (PISA) of the Organisation for Economic Co-operation and Development (OECD); jurisdictions will

then be able to examine the patterns of performance between PCAP and the international PISA assessments.

How does PCAP apply to all jurisdictions?

Although each jurisdiction has distinct curricula, these programs of studies share many commonalities. The test blueprint for PCAP was drawn up after a thorough review of contemporary research and an examination of curricula from all jurisdictions in each subject area for the target age group. The common elements from each subject area became the basis for test development. The process 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 jurisdictions and their subject experts. In summary, PCAP tests the content areas that are common across all Canadian jurisdictions.

Which students write the PCAP assessments?

In participating jurisdictions, a random sample of schools is drawn. In these schools, only random selections of 13-year-old students write the assessment. The assessment is administered in both English and French.

Why were some students exempted from writing the test?

The students who were excused from participation included those with highly limited abilities, those adversely affected by the test, those for whom appropriate modifications could not be made, and those whose parents requested it.

How many students participated in PCAP?

Just over 30,000 13-year-olds wrote the test. Approximately 20,000 wrote the reading segment, the primary domain, and about 10,000 wrote the mathematics and science, the secondary domains. Approximately 15,000 were students who wrote the reading segment in English, and 5,000 wrote it in French. For mathematics and science, the numbers were 7,500 in English and 2,500 in French. Over 1,500 schools participated across Canada, an average of 20 students per school.

Why was PCAP structured with a major domain and two minor domains?

This particular structure was intended to harmonize our Pan-Canadian Assessment Program with OECD's PISA 2009 assessment. The same cohort of students will take the PISA assessment when they are 15 years old; those results will allow study of performance patterns between assessments because the PISA assessment in 2009 will have reading as its major domain.

Is the assessment fair to students across Canada?

The jurisdictions actively participated in PCAP and ensured that both the uniqueness and diversity of our country's education systems would be taken into account. Factors such as linguistic differences, rural and urban school locations, and cultural influences were all considered in both the performance assessment and the related context

questionnaires. In addition, the common curricular framework for each subject incorporated an agreed-upon perspective for all jurisdictions that was based upon the latest pedagogical research.

All students answered the same questions based on the common framework. PCAP focuses only on the knowledge and skills elements that can be assessed in a fair and reliable manner using a paper-and-pencil test. The assessments done by classroom teachers on a daily basis provide a much more comprehensive picture of individual student achievement. PCAP is used to complement, not replace, classroom, school, or jurisdictional assessments.

How can student performance across Canada be compared?

School programs differ from one part of the country to another so making comparisons of results from these various programs is a complex task. However, young Canadians in the different provinces and territories learn many similar skills in reading, mathematics, and science. The PCAP assessments will help determine whether students across Canada reach similar levels of performance at about the same age.

How does the test of reading differ from that of mathematics and science?

Reading was the major domain of the first assessment in 2007 and the results provide extensive information on the performance of 13-year-olds in this area. The assessment items focused on three subdomains of reading —Comprehension, Interpretation, and Response to text. Mathematics and science, the other two subjects included in the assessment, each had a smaller set of test items and provide a more limited portrait of student performance. In future assessments, the emphasis on each subject will change.

What is the nature of reading, as defined in PCAP?

According to jurisdictional curricula, reading is a dynamic, interactive process whereby the reader constructs meaning from texts. The act of reading effectively involves the interaction of reader, text, purpose, and context before, during, and after reading. Reading is an integrated process in which the reader constantly expands the boundaries of Comprehension, Interpretation, and Response to text. Further information on the definition of the subdomains of reading can be found in the PCAP report.

How are student performances in PCAP being reported?

When comparisons of scores obtained from different populations are to be made on different versions of a test, it becomes necessary to develop a common way of reporting achievement scores that will allow for direct comparisons across populations and across tests.

The method used to accomplish this is to numerically **convert the raw scores to a standard scale**. Students' total scores in each subject area are transformed onto a common scale, ranging from 0 to 1000, with the average for the pan-Canadian population set at 500. The resulting scores are called **scaled scores**.

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.

How are the levels in reading determined?

In the reading assessment, the scaled scores are distributed over **three levels of proficiency**, with students being assigned to the highest level at which they can perform most of the tasks.

Level 2 is designated as the expected level of performance for 13-year-olds. Level 1 represents the performance of students at a level below that expected of students in their age group. Level 3 represents a higher level of performance. The defined expected levels of performance were established by a panel representing educators across Canada who examined actual student test responses. A student with a score between 380 and 575 was awarded level 2. This means that the score of 576 and above was awarded level 3, and a score below 380 was awarded level 1.

Who scores these assessments?

The scoring administration team, the table leaders, and the scorers (teachers) came from all the participating jurisdictions. The scoring was conducted concurrently in both English and French in one location over three weeks in July 2007

What are the main findings of this assessment?

The majority of 13-year-olds performed at or above the expected level of performance in reading. Across Canada, 88% of students performed at level 2 and above, while in each jurisdiction the percentage range of achievement in reading was 81% to 90% at level 2 or above.

In both mathematics and science, three jurisdictions were at or above the Canada mean score, which reflects the results of previous international testing programs.

How do boys and girls compare?

In the PCAP-13 Reading Assessment, as in other jurisdictional, Canadian, and international assessments, female students have a higher overall performance than male students. However, when the scores are examined as three levels of performance, the vast majority of both male and female students perform at level 2 and above, although female students do show stronger performances at level 3. This “gender gap” was more pronounced in the reading subdomains of Interpretation and Response to text and much smaller in Comprehension.

In the science and mathematics sections, there are no significant differences in the performances of male and female students overall.

How often will PCAP be administered?

PCAP for 13-year-olds is being considered for administration every three years, emphasizing a different major domain (subject area) each time that will coincide with

the major domain in PISA for 15-year-olds, which is planned to take place two years after PCAP.

What is the planned cycle for PCAP ?

Actual or proposed date	Spring 2007	Spring 2010	Spring 2013
Major domain	Reading	Mathematics	Science
Minor domain	Mathematics	Science	Reading
Minor domain	Science	Reading	Mathematics

Who funds PCAP and how much does it cost?

The provinces and territories provide the funding for PCAP through the Council of Ministers of Education, Canada.

The total expenditure on this PCAP assessment in all three domains, from the planning work begun in 2004 to the report in April 2008, was approximately \$4.4 million. This amounts to about \$3.00 per student for each domain assessed.

Where will PCAP and related reports be published?

The PCAP report is available at <http://cmec.ca>

It is expected that a separate report on minority students will be published toward the end of 2008. Similarly, a report on the contextual questionnaires and a technical report will be prepared. These will be posted on the site as they become available.