PCAP 2019

Teacher Questionnaire

Your school has been selected to participate in the Pan-Canadian Assessment Program (PCAP). The purpose of PCAP is to examine student performance and provide information on other aspects of education systems. PCAP is being conducted by the Council of Ministers of Education, Canada (CMEC), at the request of the ministry/department of education in your province/territory. PCAP results are important for charting the progress of students in the participating provinces and territories and for shaping curricula and teaching practices. Your responses help put students' performance in context, to see what best supports students' achievement and school experience.

This questionnaire is addressed to the mathematics teachers of students who have been selected to participate in this assessment. **Please keep those students in mind when answering the questions.** The questionnaire asks about your professional background, instructional practices, the kinds of students you teach, and your attitudes toward the teaching of mathematics. Since your school is part of a pan-Canadian sample, your responses are very important in helping to describe how mathematics is taught in Canada. It is therefore important that all questions be answered as carefully and accurately as possible. **Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.** We ask that you respond to all of the questions you feel comfortable answering.

The CMEC may collect personal information during the PCAP, but does not use, disclose, nor retain such personal information. Further, the CMEC will not report any result that would allow the identification of students, teachers, schools, or school boards/districts. The CMEC shall keep all information involved in PCAP secure and confidential. For more information, please consult the CMEC Web site at: https://www.cmec.ca/131/Learning_Assessment_Programs.html.

You can change your responses at any time until you have clicked "Submit" at the end of the questionnaire. We recommend completing the questionnaire in one sitting. The questionnaire will take approximately 30 minutes to complete.

Thank you for your time and effort
in completing this questionnaire.

Section 1: Background Questions

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

1. How do you identify yourself?

- ☐ 1 Female
- ☐ 2 Male
- ☐ 3 I identify myself in another way.
- ☐ 4 I prefer not to say.

2. Including this year, how many years of teaching experience do you have?

- ☐ 1 Fewer than 5 years
- ☐ 2 5 to 10 years
- ☐ 3 11 to 15 years
- ☐ 4 16 to 20 years
- ☐ 5 More than 20 years

3. In what languages do you teach mathematics? *(Check all that apply.)*

- ☐ 1 English
- ☐ 2 French
- ☐ 3 An Indigenous language
- ☐ 4 Other

4. Which of the following degrees or diplomas do you hold? *(Check all that apply.)*

- ☐ 1 BA
- ☐ 2 BEd or equivalent (e.g., at least one year of teacher training)
- ☐ 3 BSc
- ☐ 4 Other bachelor's degree
- ☐ 5 MEd
- ☐ 6 Other master's degree
- ☐ 7 PhD or equivalent
- ☐ 8 Other degree or diploma
- ☐ 9 No degree or diploma

5. **During your postsecondary studies, how many semester-long courses did you take in mathematics or mathematics-related subjects?** *(Do not include mathematics teaching-methodology courses. Count a full-year course, at the usual three class hours per week, as two semester-long courses.)*

- 1 0 courses
- 2 1 to 2 courses
- 3 3 to 5 courses
- 4 6 to 9 courses
- 5 10 or more courses

6. **During your postsecondary studies, how many semester-long courses did you take that were mathematics teaching-methodology courses?**

- 1 0 courses
- 2 1 to 2 courses
- 3 3 to 5 courses
- 4 6 to 9 courses
- 5 10 or more courses

7. **As part of your formal education and/or training, to what extent did you study the following areas?**

	Not at all	Overview or introduction to the topic	Area of emphasis
(a) Mathematics	1	2	3
(b) Pedagogy/teaching mathematics	1	2	3
(c) Educational psychology	1	2	3
(d) Remedial mathematics	1	2	3
(e) Special education	1	2	3
(f) Assessment methods	1	2	3

8. **Would you consider yourself a specialist in the teaching of mathematics?**

- 1 Yes, based on education only
- 2 Yes, based on experience only
- 3 Yes, based on education and experience
- 4 No, I do not consider myself a mathematics specialist

9. To what extent do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Agree	Strongly agree
(a) I have a deep understanding of the mathematics concepts taught in earlier grades and how they connect to the Grade 8/Secondary II mathematics curriculum.	1	2	3	4
(b) I have a deep understanding of the mathematics concepts taught in later grades and how they connect to the Grade 8/Secondary II mathematics curriculum.	1	2	3	4

10. Approximately what percent of your total teaching assignment is in mathematics for this school year?

- 1 Less than 20%
- 2 20 to 39%
- 3 40 to 69%
- 4 70% or more

11. How many students are in your mathematics class?

- 1 Fewer than 15 students
- 2 15 to 19 students
- 3 20 to 24 students
- 4 25 to 29 students
- 5 30 or more students

12. How many grade levels are in your mathematics class? *(Students with curriculum modifications do not count as being in a different grade level.)*

- 1 1 grade only
- 2 2 grade levels
- 3 3 or more grade levels

13. On average, how many days this year would you say your mathematics class has been taught by someone other than you (e.g., a substitute teacher)?

- 1 5 or fewer days
- 2 6 to 9 days
- 3 10 to 19 days
- 4 20 or more days

Section 2: Professional Development

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

14. In the past five years, how many days (or equivalent) of professional development related to the teaching of mathematics have you participated in?

- 1 0 days
- 2 1 to 2 days
- 3 3 to 4 days
- 4 5 to 8 days
- 5 9 or more days

15. Have you participated in any of the following types of professional-development activities in the past five years? If YES, to what extent did this impact your students' learning?

	Yes	No	Impact on student learning			
			None	A little	Some	A lot
(a) Academic courses (e.g., university)	1	2	1	2	3	4
(b) Workshops or conferences	1	2	1	2	3	4
(c) Professional learning communities	1	2	1	2	3	4
(d) Development of common assessment items	1	2	1	2	3	4
(e) On-line training (e.g., webinars, videos)	1	2	1	2	3	4
(f) Integration of technology into teaching	1	2	1	2	3	4
(g) Formative assessment (assessment *for* learning, assessment *as* learning)	1	2	1	2	3	4
(h) Differentiated instruction/resources to adapt to students' interests and needs	1	2	1	2	3	4
(i) Implementation of new resources	1	2	1	2	3	4
(j) Teaching strategies	1	2	1	2	3	4
(k) Mathematics content knowledge	1	2	1	2	3	4
(l) Responding to assessment data (school, provincial, national, international)	1	2	1	2	3	4
(m) Receiving support in mathematics teaching (e.g., lead teachers, coaches, mentors, numeracy specialists)	1	2	1	2	3	4
(n) Receiving instructional feedback from an administrator	1	2	1	2	3	4
(o) Mental health literacy/well-being	1	2	1	2	3	4
(p) Social-emotional learning/self-regulation	1	2	1	2	3	4

16. How often do you have the following types of interactions with other mathematics teachers?

	Never or almost never	Several times per year	2 or 3 times per month	1 to 3 times per week	Daily or almost daily
(a) Discussion of how to teach a particular topic	1	2	3	4	5
(b) Collaboration on planning and preparing instructional materials	1	2	3	4	5
(c) Sharing what I have learned about my teaching experiences	1	2	3	4	5
(d) Visiting another classroom to learn more about teaching	1	2	3	4	5
(e) Analyzing assessment data and using it to inform instruction	1	2	3	4	5
(f) Working together on scoring student work	1	2	3	4	5
(g) Developing common assessments	1	2	3	4	5

Section 3: Time Management

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

17. On average, how much time PER WEEK do you expect your students to spend on mathematics homework?

- 1 I do not assign mathematics homework.
- 2 Less than 30 minutes
- 3 Between 30 minutes and 1 hour
- 4 Between 1 and 2 hours
- 5 Between 2 and 3 hours
- 6 More than 3 hours

18. How often do you assign the following types of mathematics homework?

	Never or almost never	2 or 3 times per month	1 to 3 times per week	Daily or almost daily
(a) Paper-pencil calculations	1	2	3	4
(b) Word problems	1	2	3	4
(c) Projects	1	2	3	4
(d) Creating problems	1	2	3	4
(e) Studying for assessments	1	2	3	4
(f) Activities using concrete or virtual manipulatives (e.g., base-ten blocks, colour tiles, geometric solids)	1	2	3	4
(g) New concepts not taught in class	1	2	3	4
(h) Collaborative problem-solving activities	1	2	3	4
(i) Participation in on-line discussion forums or blogs	1	2	3	4
(j) Viewing videos on-line (e.g., YouTube, Vimeo) to review concepts	1	2	3	4

19. When you assign mathematics homework, how often do you do the following?

	Never	Rarely	Sometimes	Often
(a) Monitor whether or not the homework has been completed	1	2	3	4
(b) Collect and correct the homework	1	2	3	4
(c) Have a class discussion on the homework	1	2	3	4
(d) Provide individual student feedback on the homework	1	2	3	4
(e) Have students correct their homework in class	1	2	3	4
(f) Use homework to contribute to students' marks or grades	1	2	3	4

20. In your mathematics class, out of the total number of instructional hours you have in a given school year, on average, what percent is lost due to class cancellations or other losses of whole class periods (e.g., because of assemblies, fundraising, etc.)?

- 1 0 to 1%
- 2 2 to 5%
- 3 6 to 10%
- 4 11 to 15%
- 5 16 to 20%
- 6 More than 20%

21. How often is instructional time lost because of the following in your mathematics class?

	Never	Rarely	Sometimes	Often
(a) Student misbehaviour	1	2	3	4
(b) Other disruptions (e.g., announcements, assemblies, visits)	1	2	3	4
(c) Discussions unrelated to the mathematics lesson	1	2	3	4

22. During your school year, what percent of time does your mathematics class spend on each of the following?

	Percent
(a) Numbers and operations	
(b) Geometry and measurement	
(c) Patterns and relationships (algebra)	
(d) Data management and probability (statistics)	
Total	

Error: Your total has exceeded 100%.

Error: Your total is less than 100%.

Section 4: Assessment Practices

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

23. What types of feedback to students do you use in your mathematics class? *(Check all that apply.)*

- 1 Numeric grades (e.g., percentages)
- 2 Letter grades (e.g., A, B, C)
- 3 Checklists based on course outcomes
- 4 Descriptive levels (e.g., excellent, acceptable, not meeting standards)
- 5 Numeric levels (e.g., 1, 2, 3)
- 6 Descriptive feedback with respect to strategies that students have used
- 7 Rubric
- 8 Other

24. In your mathematics class, how often are students assessed in the following ways?

	Never	Rarely	Sometimes	Often
(a) Common assessments	1	2	3	4
(b) Teacher-developed classroom assessments	1	2	3	4
(c) Student portfolios and/or journals	1	2	3	4
(d) Individual student assignments/projects	1	2	3	4
(e) Group assignments/projects	1	2	3	4
(f) Self-assessment	1	2	3	4
(g) Peer assessment	1	2	3	4
(h) Homework	1	2	3	4
(i) Performance assessments	1	2	3	4

25. In your mathematics class, how often do you assign marks to the following?

	Never	Rarely	Sometimes	Often
(a) Attendance	1	2	3	4
(b) Homework completion	1	2	3	4
(c) Missing or late assignments	1	2	3	4
(d) Participation	1	2	3	4
(e) Effort	1	2	3	4
(f) Improvement	1	2	3	4
(g) Behaviour	1	2	3	4
(h) Group collaboration	1	2	3	4

26. In your mathematics classroom assessments, how often do you use the following kinds of items or questions?

	Never	Rarely	Sometimes	Often
(a) Selected-response items (e.g., true/false, multiple choice)	1	2	3	4
(b) Short-response items (e.g., one or two words, one-step problems, short sentences)	1	2	3	4
(c) Extended-response items requiring multi-step solutions	1	2	3	4
(d) Extended-response items requiring an explanation or justification	1	2	3	4
(e) Extended-response items requiring students to generate problems	1	2	3	4

27. In your mathematics classroom assessments, how often do you include questions to measure the following levels of thinking?

	Never	Rarely	Sometimes	Often
(a) Knowledge of facts and concepts (e.g., recall, identify, label)	1	2	3	4
(b) Ability to apply knowledge and understanding (e.g., solve a problem, apply information to a new context)	1	2	3	4
(c) Ability to explain, justify, evaluate, and generalize	1	2	3	4

Section 5: Teaching Strategies

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

28. To what extent do you use the following instructional strategies in your mathematics class?

	Never or almost never	2 or 3 times per month	1 to 3 times per week	Daily or almost daily
(a) Explain, demonstrate, and provide examples	1	2	3	4
(b) Teach through problem solving and investigations	1	2	3	4
(c) Provide time for practice	1	2	3	4
(d) Re-teach concepts and skills	1	2	3	4
(e) Have students work with concrete manipulatives (e.g., base-ten blocks, colour tiles, geometric solids)	1	2	3	4
(f) Have students work with virtual manipulatives (e.g., base-ten blocks, colour tiles, geometric solids)	1	2	3	4
(g) Have students work individually	1	2	3	4
(h) Have students work in groups	1	2	3	4
(i) Have students share solutions	1	2	3	4
(j) Have students use technology (not including a calculator)	1	2	3	4
(k) Have students summarize what was learned	1	2	3	4
(l) Provide descriptive feedback and support to students to encourage error analysis	1	2	3	4
(m) Monitor student progress and provide support and scaffolding	1	2	3	4
(n) Provide time for student reflection	1	2	3	4
(o) Use technology	1	2	3	4
(p) Differentiate instruction and resources	1	2	3	4
(q) Provide enrichment opportunities	1	2	3	4

29. To what extent do you agree with the following statements about mathematics?

	Strongly disagree	Disagree	Agree	Strongly agree
(a) It is possible for all students to succeed in mathematics.	1	2	3	4
(b) Success in mathematics requires hard work.	1	2	3	4
(c) Success in mathematics requires natural ability.	1	2	3	4
(d) Practice is important for student learning in mathematics.	1	2	3	4
(e) Because calculators are easily available, there is less need to emphasize basic computational skills in teaching mathematics.	1	2	3	4
(f) There is not enough emphasis on basic computational skills in the early grades.	1	2	3	4
(g) Student success in mathematics requires good teaching.	1	2	3	4
(h) By the time students reach Grade 8/Secondary II, the emphasis in mathematics teaching should be more on problem solving.	1	2	3	4
(i) Students should not be allowed to use calculators until they have mastered basic computational skills.	1	2	3	4
(j) Students should be given the opportunity to engage in computational thinking (e.g., programming, coding, robotics) in the mathematics classroom.	1	2	3	4

30. During your school year, what percent of total mathematics class time do you spend on the following activities?

	Percent
(a) Teaching to the whole class (e.g., lecturing or demonstrating, giving instructions, going over assignments or homework)	
(b) Teaching to small groups (while the rest of the class does other things)	
(c) Individual seat-work (while teacher circulates to help individuals as needed)	
(d) Group work (while teacher facilitates)	
(e) Project work (e.g., student groups working on long-term projects)	
(f) Labs or work stations (e.g., computer labs)	
(g) Blended learning (i.e., a mixture of classroom and on-line instruction) (e.g., flipped classroom)	
(h) Other activities	
Total	

Error: Your total has exceeded 100%.

Error: Your total is less than 100%.

31. To what extent do you provide opportunities for students to do the following in your mathematics class?

	Never or almost never	2 or 3 times per month	1 to 3 times per week	Daily or almost daily
(a) Give oral explanations	1	2	3	4
(b) Give written explanations	1	2	3	4
(c) Use mathematical language	1	2	3	4
(d) Justify their reasoning	1	2	3	4
(e) Make generalizations and conjectures	1	2	3	4
(f) Make connections among multiple representations (e.g., concrete, pictorial, symbolic, abstract, text)	1	2	3	4
(g) Integrate technology in their learning	1	2	3	4
(h) Analyze sources of errors and identify ways to overcome them	1	2	3	4

32. How often are the following resources used in your mathematics instruction?

	Never	Rarely	Sometimes	Often
(a) Mathematics curriculum documents	1	2	3	4
(b) Textbooks	1	2	3	4
(c) Teacher's guides	1	2	3	4
(d) Worksheets	1	2	3	4
(e) Other print resources	1	2	3	4
(f) Calculators	1	2	3	4
(g) Computer software	1	2	3	4
(h) Web-based resources (other than worksheets)	1	2	3	4
(i) Measuring devices (e.g., protractors, balances)	1	2	3	4
(j) Interactive white boards	1	2	3	4
(k) Packaged instructional programs (e.g., Fountas and Pinnell, Leaps and Bounds, Jump Math)	1	2	3	4
(l) Activities you have designed	1	2	3	4
(m) On-line platforms (e.g., Google classroom)	1	2	3	4

Section 6: Inclusive Classrooms

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

33. Have you tried to meet the needs of your students with the following accommodations (adaptations) or modifications?

	Never	Rarely	Sometimes	Often
(a) Program modifications (e.g., altering course expectations)	1	2	3	4
(b) More time in which to accomplish a task	1	2	3	4
(c) Adapted teaching methods	1	2	3	4
(d) Withdrawal of student from class (e.g., for a short-term, targeted intervention)	1	2	3	4
(e) Assistive technologies	1	2	3	4
(f) Help of an education assistant (e.g., teaching aide, interpreter)	1	2	3	4

34. In your mathematics class, approximately how often is another adult present to assist you?

- 1 Never
- 2 Up to one-quarter of the time
- 3 Up to one-half of the time
- 4 Most or all of the time

Section 7: Attitudes

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

35. Students' performance in my mathematics class is mostly influenced by…

	Strongly disagree	Disagree	Agree	Strongly agree
(a) natural ability.	1	2	3	4
(b) work ethic.	1	2	3	4
(c) teaching.	1	2	3	4
(d) parents/guardians.	1	2	3	4
(e) peer influence.	1	2	3	4
(f) prior knowledge.	1	2	3	4
(g) availability of help outside the classroom.	1	2	3	4
(h) learning from the errors they make.	1	2	3	4
(i) my high expectations for all students.	1	2	3	4

36. How confident are you in your ability to do the following?

	Not at all confident	Somewhat confident	Very confident
(a) Paper-pencil calculations	1	2	3
(b) Mental math	1	2	3
(c) Estimation	1	2	3
(d) Solve complex problems	1	2	3
(e) Use technology	1	2	3
(f) Coding/programming	1	2	3
(g) Use on-line platforms for instruction and/or assessment	1	2	3
(h) Encourage students to use technology or on-line resources	1	2	3

37. How confident are you in your ability to help students develop understanding in each of the following content areas?

	Not at all confident	Somewhat confident	Very confident
(a) Numbers and operations	◡ 1	◡ 2	◡ 3
(b) Geometry and measurement	◡ 1	◡ 2	◡ 3
(c) Patterns and relationships (algebra)	◡ 1	◡ 2	◡ 3
(d) Data management and probability (statistics)	◡ 1	◡ 2	◡ 3

Section 8: Challenges to Teaching

Please answer the questions as they pertain to the class selected for this assessment and to the 2018–19 school year.

38. To what extent do the following present challenges to your ability to teach mathematics?

	Not at all	A little	More than a little	A lot
(a) The range of student abilities in the class	1	2	3	4
(b) Students coming from a wide variety of backgrounds (e.g., socioeconomic, linguistic, cultural, etc.)	1	2	3	4
(c) Disruptive students	1	2	3	4
(d) Time of day for instruction	1	2	3	4
(e) Pressure from parents/guardians	1	2	3	4
(f) Curriculum inappropriate for the grade level	1	2	3	4
(g) Shortage of computer hardware or software	1	2	3	4
(h) Inadequate physical facilities	1	2	3	4
(i) Too much content in the curriculum	1	2	3	4
(j) Large class sizes	1	2	3	4
(k) Low morale in the school	1	2	3	4
(l) Concerns for personal safety or the safety of students	1	2	3	4
(m) Inadequate resources for lesson planning	1	2	3	4
(n) Insufficient time for planning	1	2	3	4
(o) Limitations in my background in the subject	1	2	3	4
(p) External assessments or standardized tests	1	2	3	4
(q) Insufficient professional development	1	2	3	4
(r) Inadequate collegial support (e.g., mentoring)	1	2	3	4
(s) Inadequate support from school administrators	1	2	3	4
(t) Shortage of resources for mathematics instruction	1	2	3	4

Thank you for taking the time to complete this questionnaire.