E IEA TIMSS 2019

Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire Mathematics

<Grade 8>

<TIMSS National Research Center Name> <Address>

> **TIMSS & PIRLS** International Study Center Lynch School of Education BOSTON COLLEGE

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Teacher Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of <eighth grade> students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe secondary education in <country>.

Some of the questions in the questionnaire refer to the **"TIMSS class"** or **"this class."** This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS in your school. If you teach some but not all of the students in the TIMSS class, please think only of the students that you teach when answering these class-specific questions. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible. Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in <country>. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the studies.

It is estimated that you will need approximately 35 minutes to complete this questionnaire. We appreciate the time and effort that this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to:

<Insert country-specific information here>.

Thank you.

TIMSS 2019

By the end of this school year, how many years will you have been teaching altogether?

_____ years Please **round** to the nearest whole number.

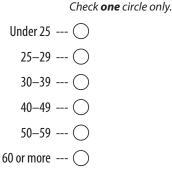
2

Are you female or male?

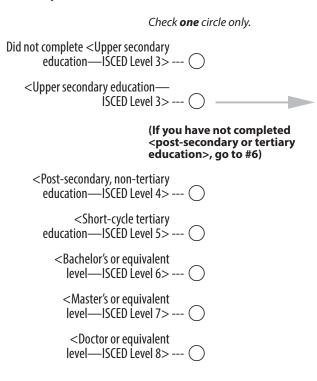
Check **one** circle only. Female ---- O Male ---- O

3

How old are you?



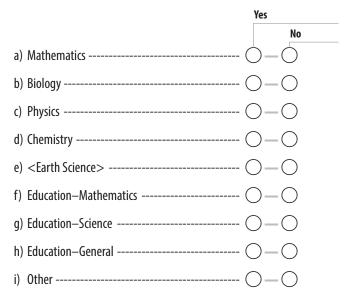
What is the <u>highest</u> level of formal education you have completed?



5

4

During your <post-secondary> education, what was your major or main area(s) of study?



6

How would you characterize each of the following within your school?

Check one circle for each line. Very high High Medium Low Very low a) Teachers' understanding of the school's curricular goals --- () b) Teachers' degree of success in implementing the school's curriculum ------ (c) Teachers' expectations for student achievement -----d) Teachers' ability to inspire students -----e) Parental involvement in school activities -----f) Parental commitment to ensure that students are ready to learn ------()-()g) Parental expectations for student achievement -----h) Parental support for student achievement ------ () i) Students' desire to do well in school -----j) Students' ability to reach school's academic goals ------ () — () —() k) Students' respect for classmates who excel academically ------ $\bigcirc -\bigcirc -\bigcirc -\bigcirc -\bigcirc$

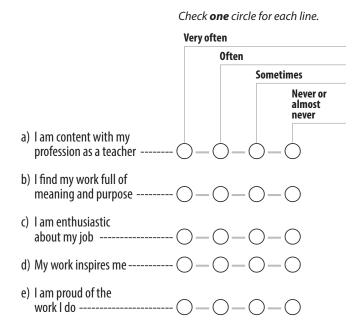
I) Collaboration between school leadership (including master teachers) and teachers to plan instruction------

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

	Agree a lot	
	Agree a little	
	Disagree a little Disagree a lot	
a) This school is located in a safe neighborhood		
b) I feel safe at this school		
c) This school's security policies and practices are sufficient		
d) The students behave in an orderly manner		
e) The students are respectful of the teachers		
f) The students respect school property		
g) This school has clear rules about student conduct		
h) This school's rules are enforced in a fair and consistent manner		

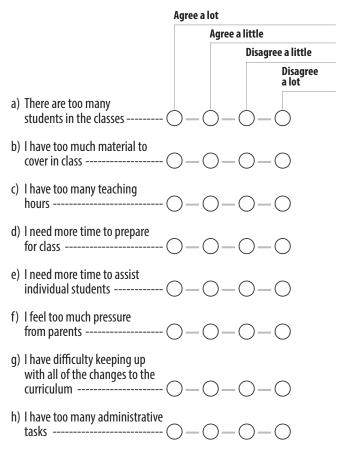


How often do you feel the following way about being a teacher?



9

Indicate the extent to which you agree or disagree with each of the following statements.



How many students are in this class?

_____ students *Write in the number.*

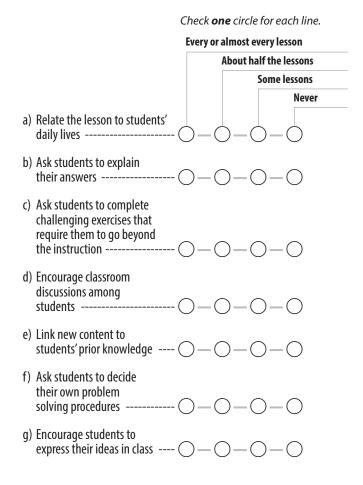
11

How many <eighth grade> students experience difficulties understanding <u>spoken</u> <language of test>?

_____ students in this class *Write in the number.*

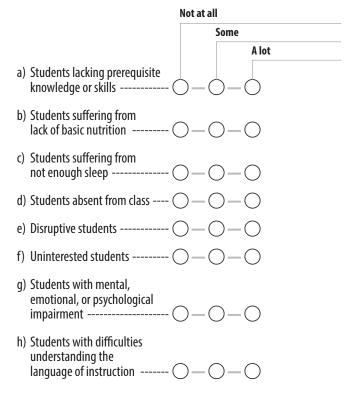
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How often do you do the following in teaching this class?



13

In your view, to what extent do the following limit how you teach this class?

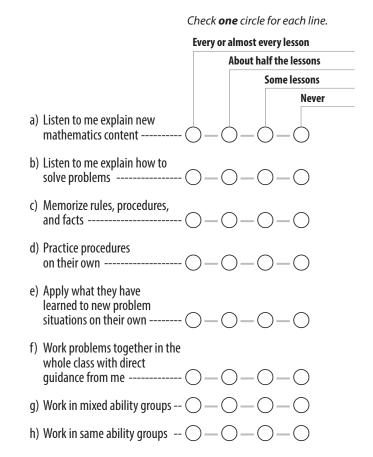


In a typical week, how much time do you spend teaching mathematics to the students in this class?

_____ minutes per week Write in the number of minutes per week. Please convert the number of hours into minutes.

15 🖬

In teaching mathematics to this class, how often do you ask students to do the following?



Are the students in this class permitted to use calculators during mathematics lessons?

Check **one** circle only.

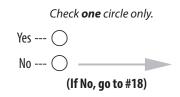
Yes, with unrestricted use --- 〇

Yes, with restricted use --- 🔿

No, calculators are not permitted ---- 〇

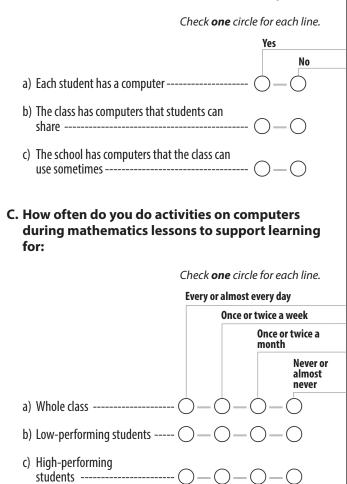
17

A. Do the students in this class have computers (including tablets) available to use during their mathematics lessons?



lf Yes,

B. What access do the students have to computers?



special needs ------O-O

d) Students with

18 ____

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the <<u>eighth grade</u>>, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

	Check one circle for each line.	
	Mostly taught before this year	
	Mostly taught this year	
	Not yet taught or just introduced	
A. Number		
a) Computing with negative numbers	$-\dot{O}-\dot{O}-\dot{O}$	
b) Concepts of fractions and decimals	-0-0-0	
c) Solving problems involving proportions and percents	-0-0-0	
B. Algebra		
a) Simplifying and evaluating algebraic expressions	-0-0-0	
b) Simple linear equations	-0-0-0	
c) Simple linear inequalities	-0-0-0	
d) Simultaneous (two variables) equations	-0-0-0	
e) Representation of linear and quadratic functions in tables, graphs, words, or equations	-0-0-0	
f) Properties of functions (slopes, intercepts, etc.)	-0-0-0	
g) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)	-0-0	
C. Geometry		
 a) Geometric properties of angles, pairs of lines, and geometric shapes (triangles, quadrilaterals, and other common polygons) 	-0-0-0	
b) Solving problems involving perimeters, circumferences, and areas	-0-0	
c) Solving problems involving the Pythagorean Theorem	-0-0	
d) Translation, reflection, and rotation	-0-0-0	
e) Congruent figures and similar triangles	-0-0-0	
f) Solving problems with three-dimensional shapes	-0-0	
D. Data and Probability		
 a) Reading and interpreting data from one or more sources to solve problems (interpolating, extrapolating, drawing conclusions) 	-0-0-0	
b) Identifying appropriate procedures for collecting data	-0-0-0	
c) Organizing and representing data to help answer questions	-0-0-0	
d) Calculating and interpreting statistics summarizing data distributions	-0-0-0	
e) Theoretical and empirical probability of simple events	-0-0-0	
f) Theoretical and empirical probability of compound events	-0-0-0	

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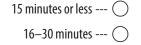
A. How often do you usually assign mathematics homework to the students in this class?

Check one circle only.
0
(Go to #20)
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B. When you assign mathematics homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

Check one circle only.

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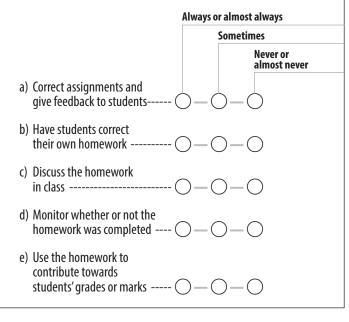
31–60 minutes --- 🔘

61–90 minutes --- 🔿

More than 90 minutes --- 〇

C. How often do you do the following with the mathematics homework assignments for this class?

Check **one** circle for each line.

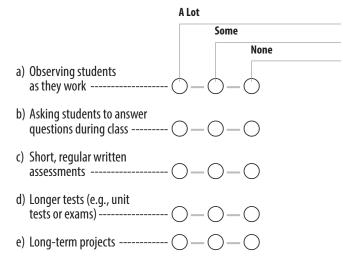


Mathematics Assessment of the TIMSS Class

20

How much importance do you place on the following assessment strategies in mathematics?

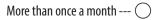
Check **one** circle for each line.



21 ı

About how often do <eighth grade> students in this class take mathematics tests on computers or tablets?





Once a month --- 〇



Once a year --- ()

Never --- 🔿

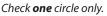
Professional Development to Teach Mathematics



- A. In the past two years, have you participated in professional development in any of the following?
- B. Do you need future professional development in any of the following?
- Check one circle Check one circle for each line. for each line. Yes Yes No No a) Mathematics content ----b) Mathematics pedagogy/ instruction----c) Mathematics curriculum -- (○-----() d) Integrating technology into mathematics instruction------ O — O -----e) Improving students' critical thinking or problem solving skills ----- O --- O f) Mathematics assessment - O - O ------ O ----
 - g) Addressing individual students' needs------ O ----- O -----

23

In the past two years, how many hours in total have you spent in formal <in-service/professional development> (e.g., workshops, seminars, etc.) for mathematics?





Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.



BOSTON College

timss.bc.edu

<Grade 8>



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