Your school has agreed to participate in TIMSS 2015 (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.
1. **About You**

   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 ---
   Male ---

3. **How old are you?**

   Check one circle only.

   Under 25 ---
   25–29 ---
   30–39 ---
   40–49 ---
   50–59 ---
   60 or more ---

4. **What is the highest level of formal education you have completed?**

   Check one circle only.

   Did not complete <Upper secondary education—ISCED Level 3> ---
   <Upper secondary education—ISCED Level 3> ---

   (If you have not completed <post-secondary or tertiary education>, go to #6)

   <Post-secondary, non-tertiary education—ISCED Level 4> ---
   <Short-cycle tertiary education—ISCED Level 5> ---
   <Bachelor’s or equivalent level—ISCED Level 6> ---
   <Master’s or equivalent level—ISCED Level 7> ---
   <Doctor or equivalent level—ISCED Level 8> ---

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

   Check one circle for each line.

   Yes
   No

   a) Mathematics ------------------
   b) Biology ------------------
   c) Physics ------------------
   d) Chemistry ------------------
   e) <Earth Science> ------------------
   f) Education–Mathematics ------------------
   g) Education–Science ------------------
   h) Education–General ------------------
   i) Other ------------------
How would you characterize each of the following within your school?

Check one circle for each line.

**School Emphasis on Academic Success**

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 working together to improve student achievement

e) Teachers’ ability to inspire students

f) Parental involvement in school activities

g) Parental commitment to ensure that students are ready to learn

h) Parental expectations for student achievement

i) Parental support for student achievement

j) Parental pressure for the school to maintain high academic standards

k) Students’ desire to do well in school

l) Students’ ability to reach school’s academic goals

m) Students’ respect for classmates who excel in school

n) Clarity of the school’s educational objectives

o) Collaboration between school leadership and teachers to plan instruction

p) Amount of instructional support provided to teachers by school leadership

q) School leadership’s support for teachers’ professional development
Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

Check one circle for each line.

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  

In your current school, how severe is each problem?

Check one circle for each line.

Not a problem  Minor problem  Moderate problem  Serious problem

a) The school building needs significant repair  

b) Teachers do not have adequate workspace (e.g., for preparation, collaboration, or meeting with students)  

c) Teachers do not have adequate instructional materials and supplies  

d) The school classrooms are not cleaned often enough  

e) The school classrooms need maintenance work  

f) Teachers do not have adequate technological resources  

g) Teachers do not have adequate support for using technology  

9 How often do you have the following types of interactions with other teachers?

**Check one circle for each line.**

- **Very often**
- **Often**
- **Sometimes**
- **Never or almost never**

- a) Discuss how to teach a particular topic
- b) Collaborate in planning and preparing instructional materials
- c) Share what I have learned about my teaching experiences
- d) Visit another classroom to learn more about teaching
- e) Work together to try out new ideas
- f) Work as a group on implementing the curriculum
- g) Work with teachers from other grades to ensure continuity in learning

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

**Check one circle for each line.**

- **Very often**
- **Often**
- **Sometimes**
- **Never or almost never**

- a) I am content with my profession as a teacher
- b) I am satisfied with being a teacher at this school
- c) I find my work full of meaning and purpose
- d) I am enthusiastic about my job
- e) My work inspires me
- f) I am proud of the work I do
- g) I am going to continue teaching for as long as I can
Indicate the extent to which you agree or disagree with each of the following statements.

*Check one circle for each line.*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) There are too many students in the classes</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) I have too much material to cover in class</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) I have too many teaching hours</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) I need more time to prepare for class</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) I need more time to assist individual students</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) I feel too much pressure from parents</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) I have difficulty keeping up with all of the changes to the curriculum</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) I have too many administrative tasks</td>
<td>○ — ○ — ○ — ○</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12
How many students are in this class?

_____________ students
Write in the number.

13
How many <eighth grade> students experience difficulties understanding spoken <language of test>?

_____________ students in this class
Write in the number.

14
How often do you do the following in teaching this class?

Check one circle for each line.

- Every or almost every lesson
- About half the lessons
- Some lessons
- Never

a) Relate the lesson to students’ daily lives

b) Ask students to explain their answers

c) Ask students to complete challenging exercises that require them to go beyond the instruction

d) Encourage classroom discussions among students

e) Link new content to students’ prior knowledge

f) Ask students to decide their own problem solving procedures

g) Encourage students to express their ideas in class

15
In your view, to what extent do the following limit how you teach this class?

Check one circle for each line.

- Not at all
- Some
- A lot

a) Students lacking prerequisite knowledge or skills

b) Students suffering from lack of basic nutrition

c) Students suffering from not enough sleep

d) Disruptive students

e) Uninterested students

f) Students with physical disabilities

g) Students with mental, emotional, or psychological disabilities
16. 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.

17. In teaching mathematics to this class, how would you characterize your confidence in doing the following?

<table>
<thead>
<tr>
<th></th>
<th>Very high</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Inspiring students to learn mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>b) Showing students a variety of problem solving strategies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>c) Providing challenging tasks for the highest achieving students</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>d) Adapting my teaching to engage students’ interest</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>e) Helping students appreciate the value of learning mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>f) Assessing student comprehension of mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>g) Improving the understanding of struggling students</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>h) Making mathematics relevant to students</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>i) Developing students’ higher-order thinking skills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>j) Assisting students in solving problems</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>k) Guiding students in understanding key mathematical concepts</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>l) Helping students develop their ability to apply mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>m) Encouraging students to explore mathematical ideas</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>n) Facilitating students’ understanding of mathematical principles</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>o) Helping students to see the relevance of mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>p) Encouraging students to think critically about mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>q) Helping students develop problem-solving skills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>r) Facilitating students’ understanding of mathematical tools</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>s) Helping students to see the beauty of mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

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

Check one circle for each line.

<table>
<thead>
<tr>
<th>Task</th>
<th>Every or almost every lesson</th>
<th>About half the lessons</th>
<th>Some lessons</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Listen to me explain new mathematics content</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>b) Listen to me explain how to solve problems</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>c) Memorize rules, procedures, and facts</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>d) Work problems (individually or with peers) with my guidance</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>e) Work problems together in the whole class with direct guidance from me</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>f) Work problems (individually or with peers) while I am occupied by other tasks</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>g) Work on problems for which there is no immediately obvious method of solution</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>h) Take a written test or quiz</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>i) Work in mixed ability groups</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>j) Work in same ability groups</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Using Calculators and Computers for Teaching Mathematics to the TIMSS Class

19

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

Check one circle only.

Yes, with unrestricted use --- ○

Yes, with restricted use --- ○

No, calculators are not permitted --- ○

(If No, go to #20)

If Yes,

B. How often do students in this class use calculators in their mathematics lessons for the following activities?

Check one circle for each line.

Every or almost every lesson

About half the lessons

Some lessons

Never

a) Check answers ----------------- ○ ○ ○ ○

b) Do routine computations ---- ○ ○ ○ ○

c) Solve complex problems ------- ○ ○ ○ ○

d) Explore number concepts ---- ○ ○ ○ ○

20

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

Check one circle only.

Yes --- ○

No --- ○

(If No, go to #21)

If Yes,

B. What access do the students have to computers?

Check one circle for each line.

Yes

No

a) Each student has a computer ------------------- ○ ○

b) The class has computers that students can share ------------------- ○ ○

c) The school has computers that the class can use sometimes ------------------- ○ ○

C. How often do you have the students do the following activities on computers during mathematics lessons?

Check one circle for each line.

Every or almost every day

Once or twice a week

Once or twice a month

Never or almost never

a) Explore mathematics principles and concepts-------- ○ ○ ○ ○

b) Practice skills and procedures - ○ ○ ○ ○

c) Look up ideas and information ---------------- ○ ○ ○ ○

d) Process and analyze data ------ ○ ○ ○ ○
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 <eighth grade>, 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.”

**A. Number**
- a) Computing with whole numbers
- b) Comparing and ordering rational numbers
- c) Computing with rational numbers (fractions, decimals, and integers)
- d) Concepts of irrational numbers
- e) Problem solving involving percents or proportions

**B. Algebra**
- a) Simplifying and evaluating algebraic expressions
- b) Simple linear equations and inequalities
- c) Simultaneous (two variables) equations
- d) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)
- e) Representation of functions as ordered pairs, tables, graphs, words, or equations
- f) Properties of functions (slopes, intercepts, etc.)

**C. Geometry**
- a) Geometric properties of angles and geometric shapes (triangles, quadrilaterals, and other common polygons)
- b) Congruent figures and similar triangles
- c) Relationship between three-dimensional shapes and their two-dimensional representations
- d) Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes
- e) Points on the Cartesian plane
- f) Translation, reflection, and rotation

**D. Data and Chance**
- a) Characteristics of data sets (mean, median, mode, and shape of distributions)
- b) Interpreting data sets (e.g., draw conclusions, make predictions, and estimate values between and beyond given data points)
- c) Judging, predicting, and determining the chances of possible outcomes
A. How often do you usually assign mathematics homework to the students in this class?

Check one circle only.

I do not assign mathematics homework ---

Less than once a week ---

1 or 2 times a week ---

3 or 4 times a week ---

Every day ---

(Go to #23)

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.

15 minutes or less ---

16–30 minutes ---

31–60 minutes ---

61–90 minutes ---

More than 90 minutes ---

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

Check one circle for each line.

Always or almost always

Sometimes

Never or almost never

a) Correct assignments and give feedback to students ----

b) Have students correct their own homework ----------

c) Discuss the homework in class -------------------

d) Monitor whether or not the homework was completed ----

e) Use the homework to contribute towards students’ grades or marks ----

23

How much emphasis do you place on the following sources to monitor students’ progress in mathematics?

Check one circle for each line.

Major emphasis

Some emphasis

Little or no emphasis

a) Assessment of students’ ongoing work ------------------

b) Classroom tests (for example, teacher-made or textbook tests) -----------------

c) National or regional achievement tests -----------------
24

In the past two years, have you participated in professional development in any of the following?

Check one circle for each line.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Mathematics content ----------------------------</td>
<td>O — O</td>
</tr>
<tr>
<td>b) Mathematics pedagogy/instruction -----------------</td>
<td>O — O</td>
</tr>
<tr>
<td>c) Mathematics curriculum -------------------------</td>
<td>O — O</td>
</tr>
<tr>
<td>d) Integrating information technology into mathematics</td>
<td>O — O</td>
</tr>
<tr>
<td>e) Improving students’ critical thinking or problem solving skills</td>
<td>O — O</td>
</tr>
<tr>
<td>f) Mathematics assessment ------------------------</td>
<td>O — O</td>
</tr>
<tr>
<td>g) Addressing individual students’ needs ----------</td>
<td>O — O</td>
</tr>
</tbody>
</table>

25

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?

Check one circle only.

None --- O

Less than 6 hours --- O

6–15 hours --- O

16–35 hours --- O

More than 35 hours --- O
How well prepared do you feel you are to teach the following mathematics topics? If a topic is not in the <eighth grade> curriculum or you are not responsible for teaching this topic, please choose “Not applicable.”

Check one circle for each line.

Not applicable

Very well prepared

Somewhat prepared

Not well prepared

A. Number

a) Computing with whole numbers

b) Comparing and ordering rational numbers

c) Computing with rational numbers (fractions, decimals, and integers)

d) Concepts of irrational numbers

e) Problem solving involving percents or proportions

B. Algebra

a) Simplifying and evaluating algebraic expressions

b) Simple linear equations and inequalities

c) Simultaneous (two variables) equations

d) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)

e) Representation of functions as ordered pairs, tables, graphs, words, or equations

f) Properties of functions (slopes, intercepts, etc.)

C. Geometry

a) Geometric properties of angles and geometric shapes (triangles, quadrilaterals, and other common polygons)

b) Congruent figures and similar triangles

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d) Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes

e) Points on the Cartesian plane

f) Translation, reflection, and rotation

D. Data and Chance

a) Characteristics of data sets (mean, median, mode, and shape of distributions)

b) Interpreting data sets (e.g., draw conclusions, make predictions, and estimate values between and beyond given data points)

c) Judging, predicting, and determining the chances of possible outcomes
Thank you for the thought, time, and effort you have put into completing this questionnaire.