INTERNATIONAL ASSOCIATION for the
EVALUATION of EDUCATIONAL ACHIEVEMENT

SECOND

Study of

MATHEMATICS

GRADE 8
TEACHER QUESTIONNAIRE
BOOKLET 9L

For Evaluation Centre Use Only

TEACHER QUESTIONNAIRE (9L)			
Country	25	School	008
Study	02	Class	01
Population	1	Teacher	015
Stratum	02	Instrument	600

TEACHER CODE: 015

****FILL OUT AT END OF JANUARY****

The Ontario Institute for Studies in Education
Educational Evaluation Centre

SECOND

Study of

MATHEMATICS

GRADE 8

TEACHER QUESTIONNAIRE

BOOKLET #1

GRADE 8

TEACHER QUESTIONNAIRE

During 1981 and 1982, a battery of tests and questionnaires is being given to samples of students in about twenty-six countries as part of a large scale international research project in mathematics. The project, known as the Second International Mathematics Study, will investigate the relationship between students' achievement in mathematics and various school, teacher, and home factors which may influence this achievement.

As part of the research program, the test battery is being given to a sample of students from your school. We also need information about various teacher factors. It is for this reason that we are asking you to complete this questionnaire.

We realize that this makes extra demands on your time. However, as a mathematics teacher, you will be aware that research depends upon accurate measurement. We ask you to complete the questionnaire as accurately as you can. All information you supply will be treated as confidential. None of it will be published in any reports or released to anyone in a manner which would enable any individual teacher, student, school or board to be identified.

Please answer directly on the questionnaire and, when you have finished it, return it directly to the Ontario Coordinating Centre (OISE). An envelope is provided for this purpose.

If you have any questions, please contact

Dr. Les McLean, Head
Educational Evaluation Centre
The Ontario Institute for Studies in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Telephone: 416-923,6641, local 478

Thank you.

SECTION A

Please answer each question by writing your response in the space provided, by checking the appropriate box, or by circling your choice.

1. Your sex: Female ☐ Male ☒

2. Your age: 37 years.

3. How many years experience have you had as a teacher (including the current year)? (Express part-time experience as full-time equivalent and round to the nearest year.)

   Number of years. 15

4. How many of these years have been spent teaching mathematics to grade eight students? (Round to the nearest year.)

   Number of years. 05

5. How many courses in <u>mathematics</u> were included in your post-secondary education?

   No. of semester courses. 04

   No. of full-year courses. 002

6. How many courses in <u>mathematics methods and pedagogy</u> were included in your post-secondary education?

   No. of semester courses.

   No. of full-year courses. 001 02

7. How many courses in general methods and pedagogy (not including those identified in question 6) were included in your post-secondary education?

No. of semester courses. [ ][ ][ ]

No. of full-year courses. [0][0][1]

02

8. What is your total number of teaching periods (i.e., class contact periods) per week?

[2][0]

9. How many of these periods per week do you spend teaching mathematics?

[1][0]

10. In addition to teaching mathematics, do you have any of the following duties.

A	Teacher of science.	Yes ☐	No ☑
B	Teacher in other areas.	Yes ☑	No ☐
C	Math Head or Chairman.	Yes ☐	No ☑
D	School Administrator - General.	Yes ☑	No ☐
E	School Administrator - Subject Area.	Yes ☐	No ☑

11. Enter the number of classes and the number of clock hours you teach (any subject) per week at each of the following levels:

A Grade eight

[0][1] classes. [0][7] hours per week.

B Lower than grade eight.

[0][1] classes. [0][6] hours per week.

C Higher than grade eight.

[–][–] classes. [–][–] hours per week.

12. How many subjects do you teach to students in the target class?

Only mathematics ☐

Mathematics and at least one (but not all) other subjects. ☑

All subjects. ☐

INFORMATION ON THE TARGET CLASS

13. How many teachers, apart from yourself and the occasional supply teacher, have taught mathematics to the target class this school year?

Number of teachers. [0]

14. How many students are currently enrolled in the target class?

Number of students. [2][4]

15. How many periods of mathematics instruction does this target class receive each week?

Number of periods. [0][5]

16. What is the average length of each class period (in minutes)?

Number of minutes. [4][0]

17. How many <u>hours</u> (approximately) of mathematics instruction will the target class have received by the end of the school year? (Please answer in terms of clock hours--not the number of periods.)

Number of hours. [1][0][0]

18. How does the target class compare with other grade eight mathematics classes in your school in terms of mathematical ability? (Check one)

There are no other grade eight classes in the school.	☑
Higher.	☐
About the same.	☐
Lower.	☐

19. In your estimation, how wide is the range of mathematics abilities in the target class? (Check one)

Very wide.	☑
Fairly wide.	☐
Fairly narrow.	☐
Very narrow.	☐

20. What percent of the target class do you consider entered the class with a sufficient degree of mastery of previous curricula?

Percent of class. 055

21. How would you characterize the main mathematics subject matter taught in the target class? (Check one)

Remedial.	☐
Typical.	☑
Enriched or accelerated.	☐

22. Estimate the number of students in the target class who fit in each of the following categories in terms of mathematical ability. (The sum of your answers should equal the total number of students in the class.)

Top third of Ontario grade eight students.	06
Middle third of Ontario grade eight students.	12
Bottom third of Ontario grade eight students.	06
Unable to judge.	
Total	24

23. Think about what you did with the target class last week and during whatever you consider a typical week. In both cases, please ESTIMATE THE NUMBER OF MINUTES spent by you on each of the following:

Preparation and planning for mathematics (OUTSIDE class contact time and not including time spent grading papers and routine marking of homework).

Last week 100 min Typical week 060 min

Grading student papers, and tests OUTSIDE class.

Last week 000 min Typical week 030 min

Explaining mathematics content NEW to the class (to more than one student at a time).

Last week 020 min Typical week 100 min

Reviewing mathematics content NOT NEW to the class (with more than one student at a time).

Last week 100 min Typical week 020 min

Routine administration (e.g., marking attendance, making announcements, setting up equipment, etc.).

Last week [0|1|0] min Typical week [0|1|0] min

Establishing and maintaining class order and disciplining students during class time.

Last week [0|0|5] min Typical week [0|0|5] min

24. Now estimate the average time per student spent by the target class on each of the following:

Taking tests

Last week [0|0|0] min Typical week [0|2|0] min

Doing seat work or blackboard work (students preparing individual written answers to assigned exercises or problems, not counting tests).

Last week [|6|5] min Typical week [|6|5] min

Listening as a whole class to you give lectures or explanations.

Last week [1|2|0] min Typical week [1|2|0] min

Working in small groups.

Last week [0|0|0] min Typical week [0|0|0] min

25. In a typical week, during an average complete period in the target class, how many DIFFERENT students did you call upon to answer oral questions? (Check one)

- Up to 1/4 of the class. ☐
- More than 1/4, up to 1/2. ☐
- More than 1/2, up to 3/4. ☑
- More than 3/4 of the class. ☐

26. How often are some students in the target class asked to do exercises or problem assignments which are different from those given other students in the class? (Check one)

- Frequently. ☐
- Occasionally. ☐
- Rarely or never. ☑

27. How many hours per week do you think have been needed by a typical student in the target class to complete the assigned homework (i.e., work to be completed outside class contact hours)?

- Last week - Number of hours. 0 2
- Typical week - Number of hours. 0 2

28. In your target class, about how often are calculators used in mathematics? (Check one alternative in each column)

	Four function	Pre-programmed (scientific) and/or Programmable
During two periods or more per week.	☐	☐
During one period per week.	☐	☐
Occasionally (not every week).	☑	☐
Never.	☐	☑
Calculators not allowed.	☐	☐

29. Which of these do you encourage your (target class) students to do? (Fill in each cell with N for NO, Y for YES.)

		Four Function Calculator	Pre-programmed (scientific) and/or Programmable Calculator	Computer
/	To check answers to exercises.	Y	N	N
O	To do homework.	N	N	N
/	As an aid to solve problems.	Y	N	N
O	To take tests.	N	N	N
/	As an aid to do projects.	Y	N	N
/	For recreation.	Y	N	N

30. By the end of the school year, indicate the approximate number of teaching periods you expect to have spent on the following topics in the target class. Please indicate whether this time is spent continuously, or whether you leave a topic and return to it later (e.g., reviewing it).

	Approximate number of teaching periods	Do you leave it and return (review)?	
Common fractions.	05	Yes ☑	No ☐
Decimal fractions.	18	Yes ☑	No ☐
Ratio and proportion.	25	Yes ☑	No ☐
Percent.	10	Yes ☑	No ☐
Measurement.	25	Yes ☑	No ☐
Geometry	12	Yes ☑	No ☐
Algebra (Formulae & Equations).	16	Yes ☑	No ☐

	Approximate number of teaching periods	Do you leave it and return (review)?
Integers.	38	Yes ☑ No ☐
Probability & Statistics.	08	Yes ☑ No ☐

31. Indicate how often you use each of the following in your instruction to your target class. (Check one alternative for each source)

	Rarely or Never	Sometimes	Often
Published textbooks (containing both explanations and exercises).	☐	☐	☑
Published workbooks or published problem sets (containing exercises only).	☐	☑	☐
Individualized material (e.g., programmed instruction).	☑	☐	☐
Commercially produced visual materials.	☑	☐	☐
Commercially published tests.	☑	☐	☐
Teaching materials (including exercises) you have prepared yourself.	☐	☑	☐
Tests you have written yourself.	☐	☐	☑

32. Please list the textbook or commercially prepared workbook you most commonly use with the target class.

Title MATH IS 2

Author(s) FRANK EBOS, BOB ROBINSON

Publisher THOMAS NELSON Edition 1975

SECTION B

Here are some teaching activities. For each, please tell how important you feel it to be, how easy you find it to teach the activity, and whether you like teaching the activity. In each case, answer with respect to the target class you are presently teaching.

How do you feel about teaching each of these mathematical activities?

33. Checking an answer to a problem by going back over it.

a	Very important	Important	Undecided	Not important	Not at all important
b	Very easy	Easy	Undecided	Hard	Very hard
c	Like a lot	Like	Undecided	Dislike	Dislike a lot

34. Memorizing rules and formulae.

a	Very important	Important	Undecided	Not important	Not at all important
b	Very easy	Easy	Undecided	Hard	Very hard
c	Like a lot	Like	Undecided	Dislike	Dislike a lot

35. Solving word problems.

a	Very important	Important	Undecided	Not important	Not at all important
b	Very easy	Easy	Undecided	Hard	Very hard
c	Like a lot	Like	Undecided	Dislike	Dislike a lot

36. Estimating answers to problems.

a	Very important	Important	Undecided	Not important	Not at all important
b	Very easy	Easy	Undecided	Hard	Very hard
c	Like a lot	Like	Undecided	Dislike	Dislike a lot

Express, on a five point scale, the extent of agreement between the feeling expressed in each statement and your personal feelings. Circle the choice which best describes your feelings.

37. Mathematics will change rapidly in the near future.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

38. Mathematics is a good field for creative people.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

39. There is little place for originality in solving mathematics problems.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

40. New discoveries in mathematics are constantly being made.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

41. Mathematics helps one to think according to strict rules.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

42. Estimating is an important mathematics skill.

Strongly Disagree | Disagree | Undecided | (Agree) | Strongly Agree

43. There are many different ways to solve most mathematics problems.

Strongly Disagree | Disagree | Undecided | (Agree) | Strongly Agree

44. Learning mathematics involves mostly memorizing.

Strongly Disagree | (Disagree) | Undecided | Agree | Strongly Agree

45. In mathematics, problems can be solved without using rules.

Strongly Disagree | Disagree | Undecided | (Agree) | Strongly Agree

46. Trial and error can often be used to solve a mathematics problem.

Strongly Disagree | Disagree | Undecided | (Agree) | Strongly Agree

47. There is always a rule to follow in solving a mathematics problem.

Strongly Disagree | (Disagree) | Undecided | Agree | Strongly Agree

48. There have not been any new discoveries in mathematics for a long time.

Strongly Disagree | (Disagree) | Undecided | Agree | Strongly Agree

49. Mathematics is a set of rules.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

50. A mathematics problem can always be solved in different ways.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

51. Mathematics helps one to think logically.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree