

***FOLLOWUP SURVEY OF  
HIGH SCHOOL MATHEMATICS TEACHERS  
PHASE I***

*SWEPT Evaluation*

## I. YOUR INSTRUCTIONAL PRACTICES

Questions 1 through 15 ask you to reflect on your instructional practices in a specified course. Ideally, this course should be the same as the “target” course you identified in the SWEPT survey you completed last spring and which appears on the label on the cover of this questionnaire. If you are no longer teaching this course, please select a new target course that meets the following criteria: (1) the subject is **algebra, geometry, or integrated mathematics**; (2) the curriculum is **not AP, Honors, or otherwise considered accelerated by your school**. Please write the title of your target course selection in the space provided below.

Title of course \_\_\_\_\_

*NOTE: The duration of high school courses can vary (e.g., 1 semester, 2 semesters, or a trimester), and students’ schedules may change mid-year. Therefore, please reflect on your teaching practices and experiences since you began teaching the class of students currently enrolled in this course when answering these questions.*

1. In this course, how much emphasis did you give to each of the following goals or objectives? (*Circle one number on each line.*)

	<b>None</b>	<b>Minor</b>	<b>Moderate</b>	<b>Major</b>
a. Integrating the course curriculum with other subjects or fields of study .....	1	2	3	4
b. Teaching facts, rules, or vocabulary .....	1	2	3	4
c. Showing the importance of the subject in everyday life .....	1	2	3	4
d. Increasing students’ interest in the subject and in pursuing further study .....	1	2	3	4
e. Encouraging students to explore alternative explanations or methods for solving problems.....	1	2	3	4
f. Preparing students for taking standardized tests in the subject.....	1	2	3	4
g. Fully covering the course curriculum as prescribed by the school/district/state .....	1	2	3	4
h. In-depth study of selected topics or issues, as opposed to exposure to a broad range of topics.....	1	2	3	4
i. Understanding the theoretical concepts and ideas underlying scientific or mathematical applications ....	1	2	3	4

2. Approximately how often did you use each of the following teaching methods in this course? (*Circle one number on each line.*)

	<b>Never</b>	<b>1-2 times a month</b>	<b>1-2 times a week</b>	<b>Almost every class</b>	<b>Every class</b>
a. Lecture or talk to the whole class .....	1	2	3	4	5
b. Teacher-led whole-class discussions .....	1	2	3	4	5
c. Students responding orally to questions on subject matter covered in class or homework.....	1	2	3	4	5
d. Student-led whole-group discussions or presentations .....	1	2	3	4	5
e. Students working together in cooperative groups .....	1	2	3	4	5
f. Reviewing homework or other assignments .....	1	2	3	4	5

3. Approximately how often did you have students engage in the following learning activities in this course? (*Circle one number on each line.*)

	Never	1-2 times a month	1-2 times a week	Almost every class	Every class
a. Work on hands-on activities (e.g., doing lab activities or using manipulatives).....	1	2	3	4	5
b. Reflect on course material by writing in a notebook or journal.....	1	2	3	4	5
c. Use calculators or computers for learning, practicing skills, or solving problems .....	1	2	3	4	5
d. Work individually on written work or assignments in a workbook or textbook.....	1	2	3	4	5
e. Critique/evaluate their own or other students' class work or homework.....	1	2	3	4	5
f. Consider a real-world problem relevant to the course and develop a plan to address it.....	1	2	3	4	5
g. Use primary sources (e.g., academic or professional journals) to investigate current issues or new developments in science, mathematics, or technology.....	1	2	3	4	5
h. Listen to guest speakers or go on field trips relevant to the material studied in class.....	1	2	3	4	5
i. Investigate possible career opportunities in science, mathematics, or technology.....	1	2	3	4	5
j. Design or implement their own scientific investigation, mathematical theory, or proof .....	1	2	3	4	5
k. Use state-of-the-art equipment or technologies ( <i>Specify types</i> ) .....	1	2	3	4	5

4. On average, approximately what percentage of your planning and preparation time for this course did you spend on each of the following activities? (*Circle one number on each line.*)

	0	1 - 9 percent	10 -19 percent	20 -29 percent	30 - 49 percent	50 percent or more
a. Revising current lessons/curriculum units.....	1	2	3	4	5	6
b. Creating new lessons/curriculum units.....	1	2	3	4	5	6
c. Contacting community resources, including making arrangements for speakers, tours, etc. ....	1	2	3	4	5	6
d. Using the Internet to access materials .....	1	2	3	4	5	6
e. Using the Internet to network with colleagues.....	1	2	3	4	5	6
f. Consulting with experts or professional scientists/mathematicians .....	1	2	3	4	5	6
g. Using a reflective teaching journal.....	1	2	3	4	5	6
h. Learning to use science or mathematics kits .....	1	2	3	4	5	6
i. Improving computer and/or software skills.....	1	2	3	4	5	6
j. Writing grants to secure funding for new programs and/or equipment .....	1	2	3	4	5	6
k. Interacting with the other teachers at your school to coordinate lessons/activities.....	1	2	3	4	5	6
l. Responding to e-mail you received from students....	1	2	3	4	5	6

5. During a typical week, approximately how much time did you spend outside of regular school hours on planning and preparing for teaching this course?

Number of hours \_\_\_\_\_

6. Which textbook (or commercially prepared workbook) constitutes the primary resource that you used in this course?

(NOTE: If you used NO textbook or workbook in this course, skip to question 11.)

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Publisher: \_\_\_\_\_

Publication date/edition: \_\_\_\_\_ / \_\_\_\_\_

7. Approximately what percentage of this textbook/workbook did you cover in this course? \_\_\_\_\_%

8. Did you use the tests that the publishers included with the textbook/workbook? (Circle only one.)

Rarely or never .....1

Sometimes .....2

Frequently .....3

9. Please give your opinion about each of the following statements as related to this textbook/workbook. (Circle one number on each line.)

This textbook:	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Not sure</b>	<b>Agree</b>	<b>Strongly agree</b>
a. Is at a reading level that is appropriate for most of the students taking this course .....	1	2	3	4	5
b. Helps develop problem-solving skills.....	1	2	3	4	5
c. Provides good review questions and problem sets ..	1	2	3	4	5
d. Explains concepts clearly .....	1	2	3	4	5
e. Provides challenging suggestions for projects, further reading, and other assignments .....	1	2	3	4	5
f. Covers the right range of topics.....	1	2	3	4	5
g. Satisfactorily covers topics in depth.....	1	2	3	4	5
h. Makes interdisciplinary connections between subject areas .....	1	2	3	4	5
i. Is considered interesting by most students taking this course.....	1	2	3	4	5
j. Other (specify) _____ .....	1	2	3	4	5

10. If you disagreed with any of the items in question 9, above, please briefly describe the problems you have seen with this textbook/workbook.

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11. To what extent did you use each of the following types of assessment to determine student progress and achievement in this course? (*Circle one number on each line.*)

	<b>Not at all</b>	<b>Slight extent</b>	<b>Moderate extent</b>	<b>Great extent</b>
a. Pre-tests before beginning a new unit.....	1	2	3	4
b. Short-answer tests (e.g., multiple choice, true/false, fill-in-the-blank).....	1	2	3	4
c. Tests requiring open-ended responses (e.g., descriptions, justifications, explanations) .....	1	2	3	4
d. Student portfolios .....	1	2	3	4
e. Class participation/group discussion.....	1	2	3	4
f. Student presentations/projects.....	1	2	3	4
g. Hands-on performance measurements .....	1	2	3	4
h. Written explanations of thought processes (e.g., journals, essays) .....	1	2	3	4

*NOTE: Questions 12-15 not used in this version.  
Please continue on the next page with Question 16.*

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## II. YOUR ATTITUDES AND BELIEFS ABOUT TEACHING

16. Please indicate how confident you feel about the following aspects of your teaching **at this time**. (*Circle one number on each line.*)

	<b>Not at all</b>	<b>Slightly confident</b>	<b>Moderately confident</b>	<b>Very confident</b>
a. Your knowledge about the application of the subject to everyday life .....	1	2	3	4
b. Your ability to advise students about job opportunities in the subject area .....	1	2	3	4
c. Your ability to advise students about opportunities to receive further training/experience in the subject area.....	1	2	3	4
d. Your ability to use inquiry-based instructional practices .....	1	2	3	4
e. Your ability to determine the depth, breadth, and pace of coverage of material in your teaching.....	1	2	3	4
f. Your ability to develop appropriate and authentic assessment tools .....	1	2	3	4
g. Your ability to supervise your students' research projects.....	1	2	3	4
h. Your ability to mentor beginning teachers .....	1	2	3	4
i. Your ability to make presentations at teacher inservices or professional meetings .....	1	2	3	4
j. Your ability to incorporate technology (computers, the Internet, laser disks, etc.) into your teaching.....	1	2	3	4

17. To what extent do you feel each of the following statements describes the kind of teacher you are **at this time**? (*Circle one number on each line.*)

	<b>Not at all</b>	<b>Slight extent</b>	<b>Moderate extent</b>	<b>Great extent</b>
a. I am motivated to expand on the instructional techniques that I use .....	1	2	3	4
b. I am motivated to change the way I use hands-on materials and manipulatives in my teaching.....	1	2	3	4
c. I am motivated to use more technology in my teaching .....	1	2	3	4
d. I consider myself a "subject matter expert" in my main teaching field.....	1	2	3	4
e. I consider preparing students for the kinds of expectations they will encounter in a work setting as an important part of my job .....	1	2	3	4
f. I believe I can truly make a difference in the lives of my students in terms of their choices for further education and their careers.....	1	2	3	4

18. What do you consider to be your greatest strengths as a teacher? Please be as specific as you can. Think about both areas of content mastery and instructional strategies when answering this question.

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19. What areas of your teaching do you think need improvement? Think about both areas of content mastery and instructional strategies when answering this question.

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### III. YOUR MATHEMATICS CURRICULUM

*Questions 20 through 22 ask about mathematics topics that you covered in this course since it began (i.e., since the current class of students enrolled).*

20. The following skills might be included in any mathematics curriculum. Please put a check next to the skills that you covered in this course.

	<b>Check if covered</b>
a. Know appropriate use of measurement instruments for precision and accuracy.....	_____
b. Know standard units of measurement, including the metric system.....	_____
c. Interpret and draw conclusions from tables and graphs .....	_____
d. Know how to use instruments such as a compass or a protractor.....	_____
e. Know how to use a graphing calculator.....	_____

*NOTE: If your target course includes algebra topics only, answer Question 21.*

*If your target course includes geometry topics only, answer Question 22.*

*If your target course includes algebra **and** geometry topics, answer **both** Questions 21 and 22.*

21. Which of the following algebra content areas did you cover in this mathematics course? Please put a check next to the bulleted topics that you covered in this course.

		<b>Check if covered</b>
<b>A. Pre-Algebra Skills and Rules of Algebra</b>		
<b>1. Properties of numbers</b>		
•	Understand basic number manipulation involving integers.....	_____
•	Know the order of operations.....	_____
<b>2. Exponents and powers</b>		
•	Understand the meaning of exponents and powers .....	_____
•	Know how to manipulate exponents and powers in performing operations to solve problems .....	_____
<b>3. Ratios and proportions</b>		
•	Interpret ratios and proportions, and represent information using these formats.....	_____
<b>4. Writing and solving equalities</b>		
•	Represent quantitative situations algebraically and evaluate these expressions for given replacement values of the variables .....	_____
<b>B. Linear Equations</b>		
<b>1. Solving linear equations</b>		
•	Recognize linear equations and interpret their parts.....	_____
<b>2. Graphing linear equations</b>		
•	Use a coordinate plane to interpret linear equations .....	_____
•	Represent linear equations by creating graphs .....	_____
<b>3. Writing linear equations</b>		
•	Write linear equations to represent mathematical problems.....	_____
<b>4. Systems of linear equations</b>		
•	Find the intersection of points between two linear equations .....	_____
<b>C. Inequalities and Linear Inequalities</b>		
<b>1. Solving</b>		
•	Understand the concept of an inequality and be able to find its solution .....	_____
<b>2. Graphing</b>		
•	Interpret the graph of an inequality .....	_____
•	Graph the solution to an inequality .....	_____
<b>D. Polynomials</b>		
<b>1. Perform operations</b>		
•	Know how to add, subtract, and multiply polynomials.....	_____
<b>2. Factoring</b>		
•	Know how to factor binomials and trinomials .....	_____
<b>E. Quadratic Equations</b>		
<b>1. Graphing quadratic equations</b>		
•	Recognize quadratic equations .....	_____
•	Know how to graph and solve quadratic equations.....	_____
<b>2. Finding roots</b>		
•	Interpret a quadratic equation and find its roots .....	_____



22. Which of the following geometry content areas did you cover in this mathematics course? Please put a check next to the bulleted topics that you covered in this course.

		<b>Check if covered</b>
<b>A. Basic Geometric Constructs</b>		
<b>1. Properties of geometric figures</b>		
•	Know the properties of plane geometric figures.....	_____
•	Understand relationships between different geometric figures .....	_____
<b>2. Measurement</b>		
•	Find lengths of sides, perimeters, and angle measures of:	
-	triangles.....	_____
-	circles .....	_____
-	other polygons.....	_____
<b>B. Finding Area of Polygons and Circles</b>		
<b>1. Triangles, regular polygons, and other plane figures</b>		
•	Know the formulae used to find the areas of triangles, regular polygons, and other plane figures and be able to apply these in different situations .....	_____
<b>2. Circles, sectors, and other parts of a circle</b>		
•	Know the parts of a circle and the formula used to find the area of a circle, and be able to apply this knowledge in different situations .....	_____
<b>C. Congruency and Similarity</b>		
<b>1. Conceptual understanding</b>		
•	Understand the concepts of congruency and similarity .....	_____
<b>2. Application</b>		
•	Apply the concept of congruency to determining and describing relationships between triangles .....	_____
<b>D. Solid Figures</b>		
<b>1. Properties</b>		
•	Know the components that make up various solid figures.....	_____
<b>2. Volume</b>		
•	Know the formulae used to find the volume of solid figures, such as cylinders, pyramids, and rectangular prisms, and be able to apply these in different situations .....	_____
<b>E. Spatial Sense</b>		
•	Understand the concepts of symmetry, rotation, and translation as applied to plane and solid figures .....	_____

**THANK YOU VERY MUCH FOR COMPLETING THIS SURVEY.**