MATHEMATICS PROFESSIONAL DEVELOPMENT IMPACT STUDY

FALL 2007

TEACHER SURVEY



M A T H E M A T I C S Professional Development Impact Study

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American Institutes for Research • MDRC • REDA International • Westat

Dear Teacher:

The Mathematics Professional Development Impact Study is a groundbreaking national study designed to test innovative models of professional development for mathematics instruction in the seventh grade. Your participation is important and appreciated, but you do have the right to skip any question that you do not wish to answer. Below are answers to some general questions concerning your participation.

What is the purpose of this survey?

The purpose of this survey is to obtain background information on the teachers participating in the study, as well as information about their instructional contexts and professional development experiences in mathematics.

Who is conducting this survey?

The mathematics PD Impact Study was commissioned by the Department of Education's Institute of Education Sciences, and is administered by AIR, MDRC, REDA International, and Westat.

Why should you participate in this survey?

Policymakers and educational leaders rely on findings from studies like the Mathematics PD Impact Study to inform their decisions. The current study will fill a critical gap in the mathematics and professional development research base as to what is effective for improving seventh grade mathematics achievement.

Will your responses be kept confidential?

Your responses are protected from disclosure by federal statute (P.L. 107-279, Title I, Part E, Sec.183). All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purposes, unless otherwise compelled by law.

How will your information be reported?

The information you provide will be combined with the information provided by others in statistical reports. No individual data that link your name, address, or telephone number with your responses will be included in the statistical reports.

Where should you return your completed survey?

Please place your completed survey in the enclosed envelope and follow the return instructions provided by REDA International, Inc.

Thank you for your cooperation in this very important effort!

Certification

1. Which of the following describes the teaching certificate you currently hold in this state?

- **D** Regular or standard state certificate or advanced professional certificate
- Probationary certificate (issued after satisfying all requirements except the completion of a probationary period)
- Provisional or other type of certificate given to persons who are still participating in what the state calls an "alternative certification program"
- □ Temporary certificate (requires some additional college coursework, student teaching, and/or passage of a test before regular certification can be obtained)
- □ Waiver or emergency certificate (issued to persons with insufficient teacher preparation who must complete a regular certification program in order to continue teaching)
- □ I do not have any of the above certifications in this state (If you marked this option skip to Question 4.)

2. To which of the following grade ranges does this certificate apply? (Mark all boxes that apply)

- □ Elementary
- □ Middle
- □ Secondary
- 3. In what content area(s) does this teaching certificate allow you to teach?
 - \Rightarrow Please fill in blank(s) with the content area code(s) from the list in Table 1 below.
 - \Rightarrow If the certificate allows you to teach all subject areas, use code 20.
 - a. First content area
 - b. Second content area
 - c. Third content area _____

Table 1. Certification Content Area Codes

Code	Certification Content Area
20	All subject areas
21	Mathematics
22	Computer Science
23	English/Language Arts
24	Natural Sciences
25	Social Sciences
26	Foreign Languages
27	Special Education
28	English as a Second Language
29	Health Education (including Physical Education)
30	Vocational/Technical Education
31	Other

Education and Preservice Training

- 4. Have you earned any of the following degrees, diplomas or certificates?
 - ⇒ Please check No or Yes in each row then, if applicable, write in the major code from the list in Table 2 below, and write in the year earned.
 - ⇒ If you have earned more than one credential per row, report the one most relevant to your current teaching assignment. (E.g., if you have earned two different master's degrees, use row b to report the master's that is most relevant to your current teaching assignment.)

	Degree	Earned	Major Code (from Table 1)	Year Earned
a.	Bachelor's degree	¹] No ²] Yes →		
b.	Master's degree	¹] No 2] Yes →		
C.	Educational specialist or professional diploma (at least one year beyond master's level)	1] No 2] Yes→		
d.	Certificate of advanced graduate studies	1] No 2] Yes→		
e.	Doctorate or professional degree (Ph.D., Ed.D., M.D, L.L.B, J.D, D.D.S)	1] No 2] Yes →		

Table 2. Major Field of Study

Code	Major Field
01	Elementary education or early childhood education
02	Secondary or middle grades education, general
03	Mathematics education
04	Mathematics
05	Computer science
06	Other mathematics-related subject
07	English/Language Arts
08	Natural science (e.g., biology, chemistry, physics, earth science, etc.)
09	Social science (e.g., Anthropology, geography, history, psychology, etc.)
10	Foreign language (e.g., French, German, etc.)
11	Special education
12	English as a second language
13	Health Education (including Physical Education)
14	Business/accounting
15	Other

5. Have you completed at least one college course in any of the following mathematics or mathematics related subjects?

- \Rightarrow Please check No or Yes in each row.
- ⇒ Include AP courses completed in high school.

	Type of Course	Completed
a.	Calculus or differential equations	I No I Yes
b.	Abstract algebra or linear algebra	I No I Yes
c.	Mathematical logic, set theory, or foundations of mathematics	│ No │ Yes
d.	Mathematics education or methods of teaching mathematics	I No I Yes
e.	Statistics or probability	□ No □ Yes
f.	Statistical methods in the social sciences (e.g., econometrics or psychometrics)	□ No □ Yes
g.	Computer science	□ No □ Yes
h.	Natural sciences (e.g., physics or chemistry)	□ No □ Yes
i.	Engineering	□ No □ Yes
j.	Accounting, decision analysis, operations research	□ No □ Yes
k.	Other mathematics or mathematics-related courses	□ No □ Yes

Experience

- How many years of teaching experience do you have in each of the following settings? ⇒ For each row, write the number of years. ⇒ Use whole numbers only. 6.

 - \Rightarrow Count the current year as one full year.

		Number of Years
a.	Teaching in total	Years
b.	Teaching at <u>this</u> school	Years
c.	Teaching middle school mathematics	Years
d.	Teaching mathematics in high school	Years
e.	Teaching mathematics as an elementary school mathematics specialist	Years
f.	Teaching a self-contained elementary school class where your responsibilities included mathematics instruction	Years

Demographics

7. What is your gender?

□ Male

□ Female

8. Are you of Hispanic or Latino origin?

□ Yes

□ No

9. What is your race? You may mark one or more box.

□ White

Black or African American

🗆 Asian

□ Native Hawaiian or other Pacific Islander

□ American Indian or Alaska Native

Course Assignments

- 10. Please provide course information for all of the class periods you currently teach.
 - ⇒ Include mathematics courses AND courses in other subjects.
 - ⇒ For each class period, write the name of the course, check the box indicating the level of the course (e.g., honors, regular, remedial), and check the box indicating the grade of most of the students in the class.

Class period/Block	Name of course	Leve	el of	Grad	lo of most
number		cour	Se	stud	ents
Class period/block 1			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 2			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 3			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 4			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 5			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 6			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 7			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other
Class period/block 8			Honors		6 th
			Regular		7 th
			Remedial		8 th
			Other		Other

Textbooks/curricula

- 11. What is the main textbook/curriculum that you use this year for your regular 7th grade mathematics class(es)?
 - □ Connected Mathematics (CMP)
 - □ Glencoe Applications and Concepts
 - Prentice Hall Mathematics (NOT Connected Mathematics)
- 12. For how many years, including this year, have you used this textbook/curriculum? ⇒ Count years used in this school and elsewhere.
 - One year, including this year
 - Two years, including this year
 - □ Three years, including this year
 - □ Four or more years, including this year

Professional Development Experiences Related to Mathematics and Mathematics Education

Professional development refers to a variety of activities intended to enhance your professional knowledge and skills, including workshops, seminars, institutes, college courses, coaching, mentoring, teacher networks, and committee work.

Summer of 2007

- **13.** Considering ALL your professional development activities during the SUMMER of 2007, did you participate in any professional development related to MATHEMATICS or MATHEMATICS INSTRUCTION?
 - \Box Yes \rightarrow Go to question 14.
 - \square No \rightarrow Skip to question 20.
- 14. During the SUMMER of 2007, what is the total number of hours you spent in each of the following MATHEMATICS or MATHEMATICS INSTRUCTION professional development activities?
 - \Rightarrow For each activity, write the total number of HOURS you spent.
 - \Rightarrow Round up to the nearest whole hour.
 - \Rightarrow Mark '0' if you participated in none.
 - \Rightarrow Please do NOT count the same hours in more than one row.

	Summer of 2007
	Number of hours
a. Attended short, stand-alone training or workshop(s) in mathematics or mathematics instruction (each one half-day or less).	
 Attended longer institute(s) or workshop(s) in mathematics or mathematics instruction (more than half-day). 	
c. Attended mathematics or mathematics education course(s), such as a college course(s), that extended over several weeks.	
d. Received coaching or mentoring in your school related to mathematics instruction.	
e. Acted as a coach or mentor in your school related to mathematics instruction	
f. Other (e.g., participated in teacher study groups, networks or collaborations supporting PD in mathematics, participated in committees or task forces related to mathematics, observed mathematics instruction in other schools)	

15. During the SUMMER of 2007, how much did the mathematics professional development in which you participated emphasize each of the following topics? *(Circle one number in each row.)*

	Торіс	Not an emphasis	Minor emphasis	Moderate emphasis	Major emphasis
a.	Whole numbers	1	2	3	4
b.	Fractions	1	2	3	4
c.	Decimals	1	2	3	4
d.	Percentages	1	2	3	4
e.	Ratios, rates and proportional reasoning	1	2	3	4
f.	Algebra	1	2	3	4
g.	Geometry	1	2	3	4
h.	Probability and statistics	1	2	3	4
i.	How students think about and learn mathematics (including common student difficulties)	1	2	3	4
j.	How to use your mathematics curriculum/textbook	1	2	3	4
k.	How to interpret and use assessment data to guide instruction	1	2	3	4
Т.	How to organize and manage the classroom	1	2	3	4
m.	How to teach students with diverse needs	1	2	3	4
n.	How to use technology in mathematics instruction	1	2	3	4
0.	Other (specify)	1	2	3	4

- 16. Next, we would like to ask specifically about LONGER INSTITUTES OR WORKSHOPS (more than half day) during SUMMER 2007. In question 14 (row b), did you report any professional development hours for longer institutes or workshops related to mathematics or mathematics instruction?
 - \Box Yes \rightarrow Go to question 17.
 - $\square \text{ No} \Rightarrow Skip \text{ to question 20.}$
- 17. In your SUMMER 2007 INSTITUTE/WORKSHOP HOURS related to mathematics instruction, how often did you do the following? (*Circle one number in each row.*)

	Occurrence	Never	Rarely	Sometimes	Often
a.	Observe demonstrations of teaching techniques (either video taped or modeled by presenters)	1	2	3	4
b.	Practice what you learned and receive feedback	1	2	3	4
c.	Lead group discussions	1	2	3	4
d.	Conduct a demonstration of a lesson, unit or skill	1	2	3	4
e.	Develop and practice using student materials	1	2	3	4
f.	Review student work or score assessments	1	2	3	4
g.	Develop lesson plans	1	2	3	4
h.	Work in pairs or small groups with other teachers	1	2	3	4

18. In your SUMMER 2007 INSTITUTE/WORKSHOP HOURS related to mathematics instruction, did you participate with most or all of the mathematics teachers from your department or grade level?

- □ Yes, most of the time
- □ Yes, some of the time
- □ No
- 19. In your SUMMER 2007 INSTITUTE/WORKSHOP HOURS related to mathematics instruction, how often was your professional development experience... (*Circle one number in each row.*)

		Never	Rarely	Sometimes	Often
a.	Consistent with your own goals for your professional development	1	2	3	4
b.	Aligned with state or district standards and/or assessments	1	2	3	4
C.	Supportive of the use of district-adopted curricular materials	1	2	3	4
d.	Supportive of your school's improvement efforts	1	2	3	4
e.	Relevant to the mathematics you will be teaching this year	1	2	3	4
f.	Focused on material at the right level of difficulty, given your prior knowledge of mathematics and mathematics teaching	1	2	3	4
g.	Logically connected from one day or session to the next	1	2	3	4
h.	Clear about what you would learn and what you should expect to take away from the experience	1	2	3	4

2006-2007 School Year

- 20. Considering ALL your professional development activities during the 2006-2007 SCHOOL YEAR, did you participate in any professional development related to MATHEMATICS OR MATHEMATICS INSTRUCTION?
 - \Box Yes \rightarrow Go to question 21.
 - \square No \rightarrow Skip to question 22.

- 21. During the 2006-2007 SCHOOL YEAR, what is the total number of hours you spent in each of the following mathematics professional development activities?
 - ⇒ For each activity, write the total number of HOURS you spent.
 - \Rightarrow Round up to the nearest whole hour.
 - \Rightarrow Mark '0' if you participated in none.
 - \Rightarrow Please do NOT count the same hours in more than one row.

	2006 – 2007 School Year
	Number of hours
a. Attended short, stand-alone training or workshop(s) in mathematics or mathematics instruction (each one half-day or less).	
b. Attended longer institute(s) or workshop(s) in mathematics or mathematics instruction (more than half-day).	
c. Attended mathematics or mathematics education course(s), such as a college course(s), that extended over several weeks.	
d. Received coaching or mentoring in your school related to mathematics instruction.	
e. Acted as a coach or mentor in your school related to mathematics instruction	
 f. Other (e.g., participated in teacher study groups, networks or collaborations supporting PD in mathematics, participated in committees or task forces related to mathematics, observed mathematics instruction in other schools) 	

Summer of 2006

- 22. Considering ALL your professional development activities during the SUMMER of 2006, did you participate in any professional development related to *mathematics* or *mathematics instruction* during the summer of 2006?
 - \Box Yes \rightarrow Go to question 23.
 - \Box No \rightarrow You are finished with the survey. Thank you.

23. During the SUMMER of 2006, what is the total number of hours you spent in each of the following mathematics professional development activities?

- \Rightarrow For each activity, write the total number of HOURS you spent.
- \Rightarrow Round up to the nearest whole hour.
- \Rightarrow Mark '0' if you participated in none.
- \Rightarrow Please do NOT count the same hours in more than one row.

	Summer of 2006
	Number of hours
a. Attended short, stand-alone training or workshop(s) in mathematics or mathematics instruction (each one half-day or less).	
 Attended longer institute(s) or workshop(s) in mathematics or mathematics instruction (more than half-day). 	
c. Attended mathematics or mathematics education course(s), such as a college course(s), that extended over several weeks.	
d. Received coaching or mentoring in your school related to mathematics instruction.	
e. Acted as a coach or mentor in your school related to mathematics instruction	
 f. Other (e.g., participated in teacher study groups, networks or collaborations supporting PD in mathematics, participated in committees or task forces related to mathematics, observed mathematics instruction in other schools) 	

You are done with the survey. Thank you.