

# National Survey on Supporting Struggling Mathematics Learners in the Middle Grades

## SURVEY INSTRUMENT

The purpose of this survey was to find out how schools across the U.S. were providing instruction, intervention, and support to students who struggle with mathematics in grades 6-8. The survey was created by the *Strengthening Mathematics Intervention* (SMI) project, which is funded by the National Science Foundation<sup>1</sup>. See the supplementary materials for a description of the methodology: <http://edc.org/accessmath>. If you would like additional information about the survey, please contact Amy Brodesky at [abrodesky@edc.org](mailto:abrodesky@edc.org)

This document includes all the questions in the survey. Each person received only a subset of these questions because the survey branched based on participants' responses. Five of the survey questions were given to *all* respondents. Respondents from schools with mathematics intervention classes received 17 questions. An additional seven questions were given to respondents who were teachers of these classes (total of 24 questions). Respondents from schools that did *not* have mathematics intervention classes received a total of 12 questions. We have organized the questions in this document to show which ones were given to different types of respondents.

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## A. Initial Questions for All Respondents

1. During this school year (2016-2017), what are your roles at your school? Please select ALL that apply.

- General education teacher for mathematics
- General education teacher for one or more subjects other than math
- Intervention teacher for mathematics
- Intervention teacher for one or more subjects other than math
- Special education teacher
- Teaching assistant or paraprofessional
- Title I teacher
- Mathematics coach or instructional coach
- Mathematics department chair, supervisor, coordinator, director, or leader
- Special education supervisor, director, or leader
- Teaching fellow
- Other (please specify) \_\_\_\_\_

### Please read these definitions, which will be used throughout the survey.

"**Math intervention class**" refers to a class that a student takes in addition to his or her general education math class and which meets during the school day. This class focuses only on mathematics and not on other subject areas. (Schools may use other names for these classes, such as math lab, math support, RTI math, Tier 2 math or math resource.)

"**General education math class**" refers to a class that provides core instruction to students on grade-level standards or above. These classes may be heterogeneously or homogeneously grouped, accelerated, or honors classes.

"**Grades 6, 7, or 8**" are the target grades for this survey. If your school has additional grades, please focus your answers on only grades 6-8.

"**This school year**" or "this year" refers to 2016-17. Please focus your answers on the 2016-2017 school year.

2. During this year, does your school have math intervention class(es) that meet in addition to students' general education math classes and meet during the school day? Please answer separately for EACH grade below.

	HAS math intervention class(es)	Does NOT have math intervention class(es)
Grade 6	<input type="radio"/>	<input type="radio"/>
Grade 7	<input type="radio"/>	<input type="radio"/>
Grade 8	<input type="radio"/>	<input type="radio"/>

**NOTE:** The survey branched based on participants' responses to Question 2. Go to Part B to see questions for respondents that selected "HAS intervention class(es)" for one or more grades. Go to Part D to see questions for respondents that selected "Does NOT have math intervention class(es)" for all three grades.

## B. Questions for Respondents from Schools *with* Math Intervention Classes

**NOTE:** Question 3–14 were only displayed to respondents who chose “HAS math intervention class(es)” for at least one of the grades in Question 2.

3. Do you teach math intervention classes to students in grades 6, 7, or 8 this school year?

- Yes
- No

4. In your school, how many students are in a typical math intervention class for grades 6, 7, or 8?

- 1-5 students
- 6-10 students
- 11-15 students
- 16-20 students
- More than 20 students

5. How many minutes long is a typical session of a math intervention class for grades 6, 7, or 8 at your school this year? (If different lengths for different days or grades, please answer with an average per session.)

- Less than 20 minutes
- 20-29 minutes
- 30-39 minutes
- 40-49 minutes
- 50-59 minutes
- 60-69 minutes
- 70 minutes or more

6. How many days per week does a typical math intervention class for grades 6, 7, or 8 meet at your school this year? (If your school does not have a five-day cycle, please estimate an average per week and round up.)

- One day per week
- Two days per week
- Three days per week
- Four days per week
- Daily (five days per week)

7. At your school this year, how many weeks long is a typical math intervention class/section? Please choose ONE.

- Full school year
- A semester
- A trimester
- A quarter
- 10 weeks
- 6 weeks
- Other; the number of weeks for the class is: \_\_\_\_\_

8. How are math intervention classes (for grades 6, 7, or 8) scheduled at your school? Please select ALL that apply.

- Students take a math intervention class instead of a non-core subject class ("special" or "elective"), such as music or art.
- Students take a math intervention class instead of a world language class.
- Students take a math intervention class instead of a study hall or advisory class.
- Our school has a designated time in the schedule during which students take either an intervention/support class or an enrichment/extension class.
- Other (please specify) \_\_\_\_\_

9. At your school, who teaches math intervention classes for grades 6, 7, or 8? Please select ALL that apply.

- Math intervention teachers who only teach mathematics
- Interventionists who teach math and other subject areas
- General education teachers who teach general education math classes too
- General education teachers who teach other subjects (not mathematics)
- Special education teachers
- Instructional assistants or paraprofessionals
- Title I teachers
- Math coaches or instructional coaches
- Math department heads or math directors
- Special education supervisors, directors, or leaders
- Teaching fellows
- Other (please specify) \_\_\_\_\_

10. Which factors are most commonly used to make decisions about which 6th, 7th, or 8th grade students should be placed in math intervention classes? Please select up to THREE factors.

- State-required standardized assessment scores
- District-based assessment scores
- Diagnostic screening assessment scores
- Teacher recommendation
- Students' grades from their general education math class (from the prior or current school year)
- Recommendations from students' IEPs or 504 plans
- Guidance counselor or Student Support Team (SST) recommendation
- Parent request for student's participation in math intervention class
- Student request for participation in math intervention class
- Other (please specify) \_\_\_\_\_

11. Which of the following statements do you think best describes the primary content focus of math intervention classes at your school?

- The primary focus is on math content from prior grade levels, to build students' foundational knowledge and address students' identified gaps.
- The primary focus is on grade-level content from students' general education math classes.
- There is about an equal focus on mathematics concepts from prior grade levels and on grade-level content from students' general education math classes.

12. To what extent, if any, do math intervention classes at your school have the following CHALLENGES?

	NOT a challenge	A challenge	A MAJOR challenge
Students in intervention classes have a wide range of math learning needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students have negative attitudes towards being in math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math intervention class sizes are too large	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not enough instructional time for math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of clarity about what math content to focus on during math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limitations in teachers' knowledge of effective instructional strategies for teaching math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limitations in teachers' mathematics content knowledge for teaching math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. This question asks about additional challenges related to implementation. To what extent, if any, do math intervention classes at your school have the following CHALLENGES?

	NOT a challenge	A challenge	A MAJOR challenge
Unclear school- or districtwide vision for math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unclear entrance criteria for deciding which students to place in math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School/district provides little or no professional development for teachers that is focused on math intervention practices for struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Little or no scheduled planning time for teachers to prepare for math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Little or no scheduled meeting time for math intervention teachers to collaborate and communicate with other teachers about struggling math students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of students who need math intervention classes is higher than the school is able to serve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents are reluctant to have their students take math intervention classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Which of the following statements best describes math intervention classes at your school? Please choose ONE.

- The expectation is that students will stay in the math intervention class for as many weeks as it runs. The group of students in a class typically does not change during that time span.
- At periodic intervals during the run of a math intervention class, decisions are made about which students should stay, leave, or be added to the group.
- Math intervention classes are fluid and flexible, with students being added and leaving on an ongoing basis during the run of the class.
- I don't know.
- Other (please specify) \_\_\_\_\_



### C. Additional Questions for Mathematics Intervention Teachers

**NOTE:** Questions 15–21 were only displayed to *mathematics intervention teachers*—respondents who answered “Yes” to Question 3.

15. For which grades do you teach math intervention classes? Please select ALL that apply.

- Grade 6
- Grade 7
- Grade 8
- Other, please specify \_\_\_\_\_

16. Which of the following teaching certifications do you have? Please select ALL that apply.

- Certification in middle, junior high, or secondary school math
- Certification in elementary math
- Certification in elementary, middle, or junior high school education (not specific to math)
- Certification in K-8 education (not specific to math)
- Certification in special education
- Certification as a math specialist or coach
- I do not have a teaching certification
- Other (please specify) \_\_\_\_\_

Please focus on one of your math intervention classes/sections to answer the next four questions.

17. In your math intervention class, which of the following do you use most often for your lessons? Select ONE or TWO.

- Lessons that I create myself, including tasks and activities I gather from different sources
- A published program that uses online or blended learning and that is specifically designed for mathematics intervention
- A published program that is not technology-based and that is specifically designed for mathematics intervention.
- A district-created program or set of lessons
- Same math curriculum program as the general education math classes use
- Other (please specify) \_\_\_\_\_

18. There are different ways that math intervention class time might be used. Please choose the best estimate of how often, if at all, you do each of the following activities in your math intervention class.

	Never	Less than once a month	Once or twice a month	About once a week	Most class sessions
Use visual representations to model and explore mathematical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use manipulatives to model and explore mathematical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reteach/review math content from students' general education math classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preview math content that is forthcoming in students' general education math classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have whole group or small group discussions for students to talk about their math ideas and share approaches to problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teach approaches to making sense of word problems, such as identifying underlying structures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Help students with homework for their general education math classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice for district or state math assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Please choose the best estimate of how often, if at all, you do each of the following activities in your math intervention class.

	Never	Less than once a month	Once or twice a month	About once a week	Most class sessions
Work on fact fluency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Play math games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students work in small groups of 3 or 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide targeted instruction to a small group while other students work independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students use computers, iPads, tablets, or other technology for instruction or support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide different activities to different students based on their math learning needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use formative assessments to identify students' strengths, gaps, misconceptions, and difficulties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect data on student growth for progress monitoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. What are your MAIN GOALS for your math intervention class? Please select up to THREE goals.

- Address students' gaps with foundational math concepts from prior grade levels
- Reteach, provide support and practice for grade-level math content from students' general education math classes
- Preview math content so that students are better prepared for their general education math classes
- Help students with homework for their general education math class
- Teach test-taking strategies and provide practice for district or state math assessments
- Build students' motivation for and confidence in doing mathematics
- Provide more opportunities for students to talk about their math ideas and ask questions than in general education math classes
- Provide students with more hands-on and concrete approaches than in general education math classes
- Other (please specify) \_\_\_\_\_

21. Do you have scheduled time to prepare for your math intervention classes?

- Yes
- No

## D. Questions for Respondents from Schools *without* Math Intervention Classes

**NOTE:** Questions 22–28 were only displayed to respondents who chose “Does NOT have math intervention class(es)” for all of the grades in Question 2.

22. What are the MAIN REASONS why your school does not provide math intervention classes to students in grades 6, 7, or 8? Please select up to THREE.

- Unable to fit classes in school schedule
- Lack of financial resources for this purpose
- Lack of qualified mathematics intervention teachers
- Other supports are in place to address the needs of struggling math learners
- Intervention time is focused on reading/ELA
- Other school or district initiatives are a higher priority
- Our school has not considered having math intervention classes
- Other (please specify) \_\_\_\_\_

23. Did your school provide math intervention classes to students in grades 6, 7, or 8 during the prior school year (2015-2016)?

- Yes
- No
- I don't know

**NOTE:** Question 24 was only displayed to respondents who answered “Yes” to Question 23.

24. What are the MAIN REASONS why your school stopped providing math intervention classes for grades 6, 7, or 8? Please select up to THREE reasons.

- Math intervention classes were not meeting intended goals
- Change in school schedule or difficulties scheduling these classes
- Lack of financial resources for this purpose
- Lack of qualified math intervention teachers for these classes
- Replaced these classes with a different approach
- Decided to provide math intervention classes at other grades levels instead of grades 6-8
- Decided to focus on ELA intervention classes only and not math intervention classes
- Other (please specify) \_\_\_\_\_

25. Is your school planning to have math intervention classes for students in grades 6, 7, or 8 in the next school year (2017-2018)?

- Yes. We plan to have math intervention classes next year.
- Maybe. We are considering having math intervention classes but a decision has not yet been made.
- No. We are not planning to have math intervention classes next year.
- I don't know.

26. Schools may face a variety of challenges in supporting struggling math learners in grades 6-8. To what extent, if any, does your school have the following CHALLENGES?

	NOT a challenge	A challenge	A MAJOR challenge
Large number of struggling math students who need additional support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General education math classes are too large	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fast pace of general education math classes poses difficulties for struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General education math classes tend to have little or no differentiation of instruction to address students' wide range of math needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers have limited content knowledge or instructional strategies for supporting struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School/district provides little or no professional development for teachers specifically around supporting struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unclear school- or districtwide vision for providing support to struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. This question asks about additional challenges. To what extent, if any, does your school face the following CHALLENGES in supporting struggling math learners at grades 6-8?

	NOT a challenge	A challenge	A MAJOR challenge
Unclear process for identifying which students need additional math support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of scheduled time to provide additional math support during the school day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Struggling learners without IEPs tend not to get additional math support during the school day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students with IEPs receive math support from teachers or aides who have limited mathematics expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Little collaboration among teachers to support struggling math learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. OPTIONAL: Use this space to list any additional challenges your school has in supporting struggling math learners in grades 6-8.

## E. Ending Questions for All Respondents

29. During the past 3 years, did you participate in any professional development that was specifically focused on supporting students who struggle with mathematics?

- Yes
- No

30. This question asks about different types of support for struggling math learners. Does your school provide the following at one or more of the grades 6, 7, or 8? Please select Yes or No for EACH row.

	Yes	No
Push-in support from special educators or paraprofessionals in one or more general education math classes	<input type="radio"/>	<input type="radio"/>
Pull-out math support for students that happens during general education math class time	<input type="radio"/>	<input type="radio"/>
Co-teaching by math teachers and special educators in one or more general education math classes	<input type="radio"/>	<input type="radio"/>
Math tutoring for individual students during the school day	<input type="radio"/>	<input type="radio"/>
Additional math classes before or after school	<input type="radio"/>	<input type="radio"/>
Math teachers are required to provide math support to students before or after school one or more days a week.	<input type="radio"/>	<input type="radio"/>
A time in the schedule when students work independently on a computer-based math program for practice or remediation	<input type="radio"/>	<input type="radio"/>

31. OPTIONAL: Use this space if you would like to provide additional information on the ways your school provides support to struggling math learners or other topics in the survey.