

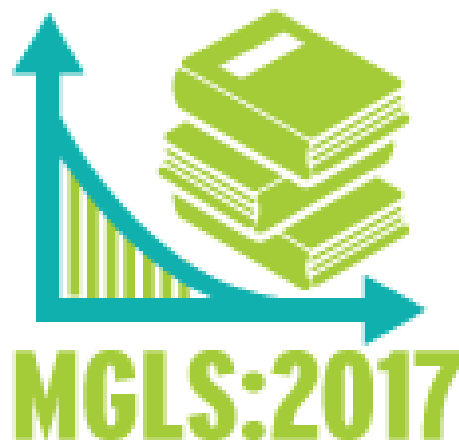
**NATIONAL CENTER FOR EDUCATION
STATISTICS**

**MIDDLE GRADES LONGITUDINAL STUDY OF
2016-2017 (MGLS:2017) COGNITIVE
INTERVIEWS**

VOLUME II

Cognitive Laboratory Participant Materials

OMB# 1850-0803 v. 97



February 27, 2014

**MIDDLE GRADES LONGITUDINAL STUDY OF 2016-2017 (MGLS:2017) MATHEMATICS
ASSESSMENT**

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

Mathematics Assessment – Cognitive Interview

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**MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017):
STUDENT COGNITIVE INTERVIEW QUESTIONNAIRE**

Thank you for coming here today to help us! You and other middle-grade students like you from many different schools will be asked to help us improve some math questions for a study of students in grades 6, 7, and 8.

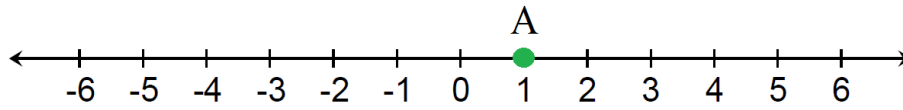
As you answer the questions, I also want you to tell me if the questions are easy or hard to understand. For example, is it easy or hard to understand what the directions are asking? Are there words that you don't understand?

There are no right or wrong answers to these questions, but please try your best, because the things you tell us today will help us make the questions better.

GO TO THE NEXT PAGE TO BEGIN.

MGLS NS052

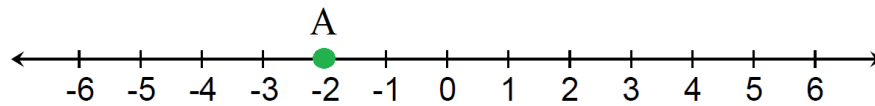
Starting at the point *A* marked on the number line below, add -4. Plot your result on the number line.



AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS.

MGLS NS053

Starting at the point A marked on the number line below, subtract -3. Plot your result on the number line.



AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS.

MGLS F058

Pierre is painting a wall in his house. He paints at a constant rate. His friend Louis already painted some of the wall for Pierre. The table below shows the total area painted after Pierre paints for a certain number of minutes.

number of minutes that Pierre spent painting (m)	total area painted in square feet (a)
1	27.75
6	61.50

Pierre constructed the following function to represent the relationship between a , the total area painted in square feet, and m , the number of minutes that Pierre spent painting.

$$a = 6.75m$$

- A. Is Pierre's equation correct? Answer "yes" or "no".
- B. Explain your reasoning.



AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS.

MGLS EE010

Which of the following are equal to 2^3 ? Choose all that apply.

- A. 6
- B. 8
- C. 9
- D. 12
- E. $3(2)$
- F. $2 * 2 * 2$
- G. $4(2)$
- H. $2(2 * 2)$
- I. $3 * 3$
- J. $(2 * 2) * 3$



AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS.

MGLS EE033

Evaluate this expression when $P = 7$.

$$\frac{1}{2}(5 - 3 * P) + 6$$



AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS.

Thank you for your participation!

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-2017 (MGLS:2017)

STUDENT EXECUTIVE FUNCTION COGNITIVE INTERVIEW

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

Student Executive Function Cognitive Interview

February 27, 2014

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Executive functions are interdependent processes that work together to accomplish purposeful, goal-directed activities and include working memory, attention, inhibitory control, and other self-regulatory processes. Executive processes work to regulate and orchestrate cognition, emotion, and behavior to enable a student to learn in the classroom. For example, executive control involves the ability to allocate attention, to hold information in working memory, and to withhold an inappropriate response. The following are the four Executive Function tasks that will be included in the MGLS:2017 cognitive laboratory work:

Hearts and Flowers Task measures cognitive flexibility. Stimuli (heart or flower) appear on the right or left side of the screen. There are 3 parts to this task; congruent, incongruent, and mixed condition. In the congruent condition, only a heart appears, and students press on the same side as the heart. In the incongruent condition, only a flower appears, and students press on the side opposite the flower. In the mixed condition, congruent and incongruent trials appear randomly, requiring subjects to switch flexibly between the two rules. Students need to remember and follow the rules for the heart or flower while processing which stimuli appears and on which side it appears, “press on the same [opposite] side” into “press right [or left].”

Stop Signal measures inhibitory control. Student see a arrows that point left or right (one per screen) are directed to press the arrow key that points the same way as quickly as they can unless they hear a beep (the stop signal). When they hear the beep, they should not press any key.

Spatial 2-back measures working memory with a visual-spatial stimuli (unfamiliar closed figures). Students see a series of figures one at a time (one per screen) and need to press a space bar when they see the same figure that they saw 2 screens before.

Letter 3-back measures working memory with a verbal stimuli (letters that students can name and repeat to themselves to remember). Students see a series of figures one at a time (one per screen) and need to press a space bar when they see the same letter that they saw 3 screens before.

REFERENCES

The Hearts and Flowers Task (to measure shifting and inhibition):

Diamond, A., L. Briand, J. Fossella, L. Gehlbach. “Genetic and Neurochemical Modulation of Prefrontal Cognitive Functions in Children.” *The American Journal of Psychiatry*, vol. 16, 2004, pp. 125-132.

The N-Back Task (to measure working memory):

Casey, B. J., Cohen, J. D., Jezzard, P., Turner, R., Noll, D. C., Trainor, R. J., et al. “Activation of Prefrontal Cortex in Children during a Nonspatial Working Memory Task with Functional MRI. *Neuroimage*, vol. 2, no. 3, 1995, pp. 221-229.

Hoang, A. and L. Fellows. “Neuropsychological Tests User Guide.” McGill University, Montreal Neurological Institute.

The Stop Signal Task (to measure inhibition):

Hoang, A. and L. Fellows. “Neuropsychological Tests User Guide.” McGill University, Montreal Neurological Institute.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-2017 (MGLS:2017)

STUDENT COGNITIVE INTERVIEW QUESTIONNAIRE

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

Student Cognitive Interview Questionnaire

February 27, 2014

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**MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017): STUDENT COGNITIVE
INTERVIEW QUESTIONNAIRE**

Thank you for coming here today to help us! You and other middle-grade students like you from many different schools will be asked to help us improve some questions for a study of students in grades 6, 7, and 8. These questions are about you, your school, and your family.

As you answer the questions, I also want you to tell me if the questions are easy or hard to understand. For example, is it easy or hard to understand what the directions are asking? Are there words that you don't understand?

There are no right or wrong answers to these questions, but please try your best, because the things you tell us today will help us make the questions better.

GO TO THE NEXT PAGE TO BEGIN.

A1. What do your parents/guardians do when you receive good grades in school?

When I get good grades my parents/guardians		MARK ONE EACH ROW	
		Yes	No
a.	Give me a reward, like a present or gift.....	1 ☐	2 ☐
b.	Give me money or increase my allowance.....	1 ☐	2 ☐
c.	Take me to some place special, like out to dinner or to a movie.....	1 ☐	2 ☐
d.	Give me more opportunities to make decisions for myself.....	1 ☐	2 ☐
e.	Encourage me to try harder.....	1 ☐	2 ☐
f.	Are less strict with me.....	1 ☐	2 ☐
g.	Tell me I am a good student.....	1 ☐	2 ☐
h.	Tell me they are proud of me	1 ☐	2 ☐
i.	Say I should do even better.....	1 ☐	2 ☐
j.	Do not know about my good grades.....	1 ☐	2 ☐
k.	Do not care about my good grades.....	1 ☐	2 ☐
l.	Do not really do anything.....	1 ☐	2 ☐
m.	Other (Please specify) _____	1 ☐	2 ☐

A2. What do your parents/guardians do when you receive bad grades in school?

When I get bad grades my parents/guardians

MARK ONE EACH ROW

	Yes	No
a. Reduce my allowance.....	1 ☐	2 ☐
b. Give me fewer opportunities to make decisions for myself	1 ☐	2 ☐
c. Are more strict with me.....	1 ☐	2 ☐
d. Punish or ground me.....	1 ☐	2 ☐
e. Encourage me to try harder.....	1 ☐	2 ☐
f. Offer me a reward, such as money or a present, if I do better next time.....	1 ☐	2 ☐
g. Make me feel bad.....	1 ☐	2 ☐
h. Offer to help me with my school work.....	1 ☐	2 ☐
i. Offer to find me a tutor.....	1 ☐	2 ☐
j. Do not know about my bad grades.....	1 ☐	2 ☐
k. Do not care about my bad grades.....	1 ☐	2 ☐
l. Do not really do anything.....	1 ☐	2 ☐
m. Other (Please specify) _____	1 ☐	2 ☐

A3. During a typical weekday during the school year, how many hours do you spend hanging out or socializing with your friends?

MARK ONE ONLY

₁ ☐ Less than 1 hour

₂ ☐ 1 to 2 hours

₃ ☐ 2 to 3 hours

₄ ☐ 3 to 4 hours

₅ ☐ 4 to 5 hours

₆ ☐ 5 or more hours



**AFTER YOU FINISH THIS ITEM, PUT DOWN YOUR PENCIL
AND WAIT FOR FURTHER INSTRUCTIONS.**

A4. Which of the categories below describe the kind of work you do/did for pay? (Do not include chores or other work around the house, or an allowance you might receive.)

MARK ALL THAT APPLY

- 1 ☐ Lawn work
- 2 ☐ Waiter/waitress, dishwasher, or busser
- 3 ☐ Newspaper route
- 4 ☐ Babysitting or child care
- 5 ☐ Farm or agricultural work
- 6 ☐ Other manual labor
- 7 ☐ Store clerk, salesperson
- 8 ☐ Office or clerical
- 9 ☐ Odd jobs
- 10 ☐ Other (please specify)
- 11 ☐ I have not worked for pay



**AFTER YOU FINISH THIS ITEM, PUT DOWN YOUR PENCIL
AND WAIT FOR FURTHER INSTRUCTIONS.**

A5a. Below is a list of talents, interests, or hobbies that students your age are sometimes excited about. Please select the talents, interests, or hobbies that are very important to you. If you do not see yours listed, use the "Other" area to mark an "X" and write in that talent, interest, or hobby on the line provided.

What talents, interests, or hobbies are you excited about?

MARK ALL THAT APPLY

- 1 ☐ Math/Science
- 2 ☐ Writing/Reading
- 3 ☐ Computers/electronics
- 4 ☐ Team sports/athletics (Baseball, Basketball, Football, Gymnastics, Volleyball, etc.)
- 5 ☐ Physical activities (Biking, Running, Martial Arts, Skateboarding, Ice Skating, etc.)
- 6 ☐ Dance
- 7 ☐ Music
- 8 ☐ Singing/Choir
- 9 ☐ Art
- 10 ☐ Drama
- 11 ☐ Volunteering/service/activism
- 12 ☐ Being in nature, caring for animals, or participating in outdoor recreation
- 13 ☐ Doing construction, architecture, or other types of mechanics or engineering
- 14 ☐ Collecting (trading cards, stamps, models, etc.)
- 15 ☐ Cooking/baking
- 16 ☐ Other (*specify*)

- 17 ☐ I don't have any talents, interests, or hobbies that I am excited about
↓
(PUT DOWN YOUR PENCIL AND WAIT FOR FURTHER INSTRUCTIONS)

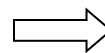
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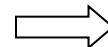


A5b. Among the talents, interests, or hobbies you selected above (question A8a), which are you the most excited about?

MARK ONE ONLY

- 1 ☐ Math/Science
- 2 ☐ Writing/Reading
- 3 ☐ Computers/electronics
- 4 ☐ Team sports/athletics (Baseball, Basketball, Football, Gymnastics, Volleyball, etc.)
- 5 ☐ Physical activities (Biking, Running, Martial Arts, Skateboarding, Ice Skating, etc.)
- 6 ☐ Dance
- 7 ☐ Music
- 8 ☐ Singing/Choir
- 9 ☐ Art
- 10 ☐ Drama
- 11 ☐ Volunteering/service/activism
- 12 ☐ Being in nature, caring for animals, or participating in outdoor recreation
- 13 ☐ Doing construction, architecture, or other types of mechanics or engineering
- 14 ☐ Collecting (trading cards, stamps, models, etc.)
- 15 ☐ Cooking/baking
- 16 ☐ Other (*specify*) _____

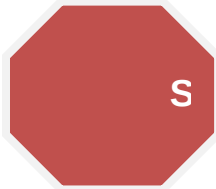
TURN TO THE NEXT PAGE



A6. Do you have a parent, mentor, friend, or another caring adult who has helped you pursue the talents, interests, or hobbies you are excited about?

1 ☐ Yes

0 ☐ No



**AFTER YOU FINISH THESE ITEMS, PUT DOWN YOUR PENCIL
AND WAIT FOR FURTHER INSTRUCTIONS.**

A7. As things stand now, how far in school do you think you will get?

MARK ONE ONLY

- ¹ ☐ Won't finish high school
- ² ☐ Will graduate from high school, but won't go any further
- ³ ☐ Will go to vocational, trade, or business school after high school
- ⁴ ☐ Will attend college
- ⁵ ☐ Will graduate from college
- ⁶ ☐ Will attend a higher level of school after graduating from college
- ⁷ ☐ Don't know



**AFTER YOU FINISH THIS ITEM, PUT DOWN YOUR PENCIL
AND WAIT FOR FURTHER INSTRUCTIONS.**

A8. How much do you agree with the following statement: I am definitely going to college.

MARK ONE ONLY

- 1 ☐ Very Strongly Disagree
- 2 ☐ Strongly Disagree
- 3 ☐ Disagree
- 4 ☐ Agree
- 5 ☐ Strongly Agree
- 6 ☐ Very Strongly Agree



**AFTER YOU FINISH THIS ITEM, PUT DOWN YOUR PENCIL
AND WAIT FOR FURTHER INSTRUCTIONS.**

That is all the questions we have for today.

Thank you for helping us improve our questionnaire.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017)

PARENT COGNITIVE INTERVIEW QUESTIONNAIRE

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

Parent Cognitive Interview Questionnaire

February 27, 2014

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MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017): PARENT COGNITIVE INTERVIEW QUESTIONNAIRE

Dear Parent,

Thank you for agreeing to help us with this study. Decision Information Resources (DIR) and Mathematica Policy Research are working with the National Center for Education Statistics, part of the U.S. Department of Education, to design a new national longitudinal study of how students learn and progress during sixth, seventh, and eighth grade. This study, the Middle Grades Longitudinal Study of 2016-17 (or MGLS:2017), will collect information from students, parents, teachers, and school administrators.

This questionnaire includes a few questions for you to review and answer. We are asking that you read over the questions and provide your best response. These are questions that parents of middle grade students across the country will be asked to answer about their children's education, behavior, and family life.

In a few days, you will receive a follow-up call about the topics covered in this letter. The call should take no more than 30 minutes. Your feedback will help us make these questions clearer for parents who participate in the study in the future.

A. CONVERSATIONS ABOUT FUTURE PLANNING

We are interested in the conversations that parents have with their children about school.

A1. Have you talked with your child about which math courses to take next school year?

¹ ☐ Yes

² ☐ No

B. SOCIAL SKILLS AND POSITIVE BEHAVIORS

Here we are interested in how parents respond to questions about their child's social skills and positive behaviors.

B1. Please read the following list of items that sometimes describe children. For each of the following characteristics please mark the extent to which they are not true, somewhat, or certainly true for your child over the last six months.

	NEVER	RARELY	OCCASIONALLY	OFTEN	ALWAYS
a. He/She is considerate of other people's feelings.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. He/She is helpful if someone is hurt, upset, or feeling ill	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. He/She is nervous in new situations, easily loses confidence	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. He/She often offers to help others (parents, teachers, children)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
e. He/She gets along better with adults than with other youth	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

C. PARENT INVOLVEMENT IN SCHOOL

We are interested in both the degree and frequency of parent involvement as well as the perception of involvement as a personal responsibility.

C1. Indicate how much you AGREE or DISAGREE with each of the following statements. Please think about the current school year as you consider each statement.

	DISAGREE VERY STRONGLY	DISAGREE	DISAGREE JUST A LITTLE	AGREE JUST A LITTLE	AGREE	AGREE VERY STRONGLY
a. It's my job to explain tough assignments to my child.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
b. It's my job to make sure my child understands his or her assignments.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
c. I make it my business to stay on top of things at school.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
d. I assume my child is doing all right when I don't hear anything from the school.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
e. The teacher has to let me know about a problem before I can do something about it.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
f. I get most of my information about my child's progress from report cards.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
g. My child's learning is mainly up to the teacher and my child.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

C2. Indicate HOW OFTEN you have done the following this school year.

	NEVER	ONCE SO FAR THIS YEAR	ABOUT ONCE A MONTH	ONCE EVERY TWO WEEKS	ONCE A WEEK	DAILY
a. I kept an eye on my child's progress.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
b. I made sure that my child's homework got done.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
c. I helped my child study for tests or quizzes.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
d. I talked to my child about what he or she is learning.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
e. I took my child to the library, community events, or similar places.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
f. I expected the school to notify me if my child had a problem.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
g. I expected my child to do his or her homework at school.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
h. I relied on the teacher to make sure my child understands his or her assignments.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

D. ADDITIONAL THOUGHTS

If you have any thoughts or questions about the topics included in this letter, please note below and share on your follow-up call.

**Again, thank you for helping us improve our questionnaire.
You will receive a follow-up call very soon. Your input will be instrumental in the
design of the parent questionnaire that will be utilized in the national study.**

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-2017 (MGLS:2017)
MATHEMATICS ASSESSMENT AND
TEACHER SURVEY FOCUS GROUP PREPARATION MATERIALS

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

Mathematics Assessment and Teacher Survey Focus Group Preparation Materials

February 27, 2014

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is XXXX-XXXX. The time required to complete this information collection is estimated to average 240 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017): MATHEMATICS ASSESSMENT

Thank you for agreeing to review items to be included as part of the mathematics assessment, teacher questionnaire, and teacher student report for the Middle Grades Longitudinal Study of 2016-17 (MGLS:2017). Decision Information Resources (DIR) and Mathematica Policy Research are working with the National Center for Education Statistics, part of the U.S. Department of Education, to design this new national longitudinal study of how students learn and progress throughout the middle grades. MGLS:2017 will collect information from students, parents, teachers, and school administrators.

If you teach multiple grades, please focus on grade [6/7/8] in reviewing these items.

MATHEMATICS ASSESSMENT

Your insights as a math teacher are invaluable in helping us determine whether our assessment items accurately measure middle grade students' mathematical knowledge.

Enclosed you will find a set of questions organized into four major domains: Number Systems; Ratio and Proportional Relationships; Expressions and Equations (and Algebra); and Functions.

Please read through this set of assessment questions carefully, writing notes on the document when you come across items that seem problematic, inaccurate, or inappropriate for middle grade students. Please keep in mind that some middle grade students will be taking algebra – in some schools both algebra 1 and algebra 2. Consider whether there are enough easy items for sixth graders who perform below grade level to answer correctly and enough difficult items for eighth graders who perform above grade level to answer correctly. We welcome your suggestions for changes to items.

We would like you to pay particular attention to the items that assess the grade-level standards that you teach, but would appreciate comments on any of the items.

Some issues to look for and note include, but are not limited to:

- Questions with confusing wording, unclear directions, or inappropriate distracters
- Questions that are mathematically inaccurate or for which there is not a clear answer
- Item presentations that are going to be very unfamiliar to students
- Items that seem too difficult or too easy for the range of students we may find in grades six, seven, and eight. Are there 10 items that your weakest students could answer correctly, and five to 10 items that your most gifted students might not be able to answer correctly?
- Items should assess mathematics rather than language comprehension. Are the items written clearly enough for students to apply what they know about mathematics, and are the terms that are used appropriate for the middle grades and vocabulary that students should know in the middle grades?
- Problems that you think are good at identifying when students really understand the content? Please star items that you think will be particularly helpful in identifying whether students know and can apply middle grades mathematics.

We also welcome your feedback on what isn't included in the assessment items. Please include notes if you feel that anything is missing from this assessment; for example, if a critical dimension of one of the four domains is not being measured.

When your review is complete, please keep your marked-up copy of the questions for reference during our scheduled focus group. Please use the flags provided to identify items that you think need to be discussed on the call so that you can find them easily. After the call, please send us your copy in the enclosed postage-paid envelope so that we may review your feedback further. We would also like to contact you for clarification on what you have written.

Many thanks for your assistance, and we look forward to speaking with you soon.

Student assessment items for review
will follow here.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS:2017): MATHEMATICS TEACHER SURVEY

For mathematics classes in your school, do you instruct the same group of students all or most of the day in multiple subjects (sometimes called a self-contained classroom), or do you instruct several classes of different students most or all of the day in one or more subjects (sometimes called departmentalized instruction).

MARK ONE ONLY

- 1 ☐ self-contained mathematics classes
2 ☐ departmentalized mathematics classes

This set of questions will be asked of teachers just like you. If mathematics classes are departmentalized, please focus on a one section of a particular math class in which you teach [FILL 6th/7th/8th] grade students (for example, if you teach three pre-algebra classes please answer questions about the section you taught most recently, or the one that meets first on Wednesdays). Answer all questions for that class. You might also find it helpful to have a class roster with you for some of these questions.

So that we may easily talk about these questions later, please fill in the following information:

Name and section of the class for which you are answering questions:

Which of the following best describes this course?

MARK ONE ONLY

- 1 ☐ General 6th grade mathematics
2 ☐ General 7th grade mathematics
3 ☐ Introduction to algebra/pre-algebra
4 ☐ Algebra
5 ☐ Integrated or sequential mathematics
6 ☐ Algebra II
7 ☐ Geometry
8 ☐ Other, specify: _____

If you teach mathematics to different groups or classes of students, please indicate whether this section is designated as regular, remedial, honors, or something else.

MARK ONE ONLY

- 1 ☐ Regular mathematics class for students performing at grade level
2 ☐ Instruction for students performing below grade level in mathematics
3 ☐ Honors, enrichment, or gifted and talented
4 ☐ Other: _____

If you teach mathematics to different groups or classes of students, please indicate whether this class meets daily, on a block schedule, or something else.

MARK ONE ONLY

- 1 ☐ Class meets daily throughout the year
2 ☐ Class runs throughout the year and meets less than 5 days a week, but in longer blocks
3 ☐ Class follows a block schedule during certain segments of the school year
4 ☐ Other: _____

A. MATHEMATICS TEACHER QUESTIONNAIRE

- A1. The purpose of these items is to obtain a description of the specific mathematic content areas you covered or plan to cover in your course this academic year.**

Following is a list of content areas covering materials that may be taught in grades 6, 7 & 8. Please respond to the entire list so that we may obtain an indication of the topics covered in your class that is as complete and accurate as possible.

Before marking, please read quickly through the entire list to obtain an idea of where various content areas you've taught may be found. (Note: not all areas are necessarily appropriate for your class.)

For each listed content area, indicate the approximate number of class periods during which you taught the content area during this school year to your class.

To what extent have you or will you teach each of the following topics in your course during the 2013-2014 school year?

For topics where you teach more than 15 class periods, please mark the ">15" response option and note the number of class periods in the margin next to that content area.

SELECT ONE PER ROW

	NUMBER OF CLASS PERIODS TAUGHT					
	None	1 or Less	2-5	6-10	11-15	>15
Ratios and Proportional Relationships						
a. Understand ratio concepts and use ratio reasoning to solve problems.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
b. Your math ability is something about you that you can't change very much.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
The Number System						
c. Apply and extend previous understandings of multiplication and division to divide fractions by fractions....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
d. Compute fluently with multi-digit numbers and find common factors and multiples.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
e. Apply and extend previous understandings of numbers to the system of rational numbers.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
f. Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
g. Know that there are numbers that are not rational, and approximate them by rational numbers.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

SELECT ONE PER ROW

NUMBER OF CLASS PERIODS TAUGHT

Functions

h. Define, evaluate and compare functions.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

i. Use functions to model relationships between quantities.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

Expressions and Equations

j. Apply and extend previous understandings of arithmetic to algebraic expressions.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

k. Reason about and solve one-variable equations and inequalities.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

l. Represent and analyze quantitative relationships between dependent and independent variables.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

m. Use properties of operations to generate equivalent expressions.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

n. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

o. Work with radicals and integer exponents.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

p. Understand the connections between proportional relationships, lines, and linear equations.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

q. Analyze and solve linear equations and pairs of simultaneous linear equations.....

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

A2. Which one of the following textbooks do you use the most in your class as your primary source of instruction? Please provide the publication year of this textbook.

If the textbook you mark has an option in the last column to indicate grade level, please mark the grade.

What additional textbooks do you use to supplement your instruction?

	SELECT ONE RESPONSE	SELECT ALL THAT APPLY	SELECT ONE RESPONSE PER ROW	
	PRIMARY TEXTBOOK	SUPPLEMENTARY TEXTBOOKS	PUBLICATION YEAR OF PRIMARY TEXTBOOK	GRADE LEVEL (ITEMS M, N, P, AND Q ONLY)
a. Holt Mathematics Course 1; Holt, Rinehart & Winston.....	1 ☐	1 ☐	_ _ _ _	
b. Holt Mathematics Course 2; Holt, Rinehart & Winston.....	2 ☐	2 ☐	_ _ _ _	
c. Holt Mathematics Course 3; Holt, Rinehart & Winston.....	3 ☐	3 ☐	_ _ _ _	
d. Holt Pre-Algebra; Holt, McDougal.....	4 ☐	4 ☐	_ _ _ _	
e. Holt Algebra I; Holt, McDougal.....	5 ☐	5 ☐	_ _ _ _	
f. Saxon Math.....	6 ☐	6 ☐	_ _ _ _	
g. Algebra 1; McDougal Littell/Houghton Mifflin.....	7 ☐	7 ☐	_ _ _ _	
h. Algebra; Prentice Hall.....	8 ☐	8 ☐	_ _ _ _	
i. Algebra 1; Glencoe/McGraw-Hill.....	9 ☐	9 ☐	_ _ _ _	
j. Contemporary Mathematics in Context; Glencoe/McGraw-Hill.....	10 ☐	10 ☐	_ _ _ _	
k. Integrated Mathematics; McDougal Littell/Houghton Mifflin.....	11 ☐	11 ☐	_ _ _ _	
l. Everyday Mathematics (UCSMP); Everyday Learning.....	12 ☐	12 ☐	_ _ _ _	
m. Math; Harcourt, Brace, Jovanovich.....	13 ☐	13 ☐	_ _ _ _	5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐
n. Math; Scott Foresman.....	14 ☐	14 ☐	_ _ _ _	5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐
o. Trailblazers; Kendall Hunt.....	15 ☐	15 ☐	_ _ _ _	
p. Math Investigations; Pearson/TERC.....	16 ☐	16 ☐	_ _ _ _	5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐
q. Other (specify):	17 ☐	17 ☐	_ _ _ _	5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐
r. I do not use a textbook in teaching this class.....	18 ☐			

- A3. How important is each of the following factors in placing a student into a mathematics course for the grade you teach? Please indicate whether EACH is not at all important, a little important, somewhat important, or very important.**

	SELECT ONE PER ROW			
	NOT AT ALL IMPORTANT	A LITTLE IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT
a. Counselor recommendation.....	1 ☐	2 ☐	3 ☐	4 ☐
b. Prior teacher recommendation....	1 ☐	2 ☐	3 ☐	4 ☐
c. Courses taken previously.....	1 ☐	2 ☐	3 ☐	4 ☐
d. Achievement in previous courses.....	1 ☐	2 ☐	3 ☐	4 ☐
e. Results of a district or state end- of-year or end-of-course exams. .	1 ☐	2 ☐	3 ☐	4 ☐
f. Results of placement tests.....	1 ☐	2 ☐	3 ☐	4 ☐
g. Results of standardized tests.....	1 ☐	2 ☐	3 ☐	4 ☐
h. Student career or education plan	1 ☐	2 ☐	3 ☐	4 ☐
i. Student and/or parent or guardian selection.....	1 ☐	2 ☐	3 ☐	4 ☐

- A4. In your [FILL GRADE] mathematics class this year, how often do your students use a computer or other technological resources, such as a tablet or Smartboard, to do each of the following? Fill in one box on each line.**

	SELECT ONE PER ROW			
	NEVER OR HARDLY EVER	ONCE OR TWICE A MONTH	ONCE OR TWICE A WEEK	EVERY DAY OR ALMOST EVERY DAY
a. Practice or review mathematics topics on the computer.....	1 ☐	2 ☐	3 ☐	4 ☐
b. Extend mathematics learning with enrichment activities.....	1 ☐	2 ☐	3 ☐	4 ☐
c. Research a mathematics topic on the Internet or CD-ROM.....	1 ☐	2 ☐	3 ☐	4 ☐
d. Use a drawing program for geometric shapes.....	1 ☐	2 ☐	3 ☐	4 ☐
e. Use a graphing program.....	1 ☐	2 ☐	3 ☐	4 ☐
f. Play mathematics computer games...	1 ☐	2 ☐	3 ☐	4 ☐

B. MATHEMATICS TEACHER STUDENT REPORT

For the following question, please look at your list of students for this class and answer for the student who is 11th on the roster.

B1. Please rate this student's skills in the following areas, as exhibited in your class. Fill in one box in each line.

	SELECT ONE PER ROW					
	OUTSTANDING	VERY GOOD	GOOD	FAIR	POOR	NOT APPLICABLE/ NOT OBSERVED
a. Ability to apply mathematical concepts to "real world" problems.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
b. Ability to complete or conduct proofs or demonstrations of his/her mathematical reasoning.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
c. Ability to talk about his/her reasoning or thinking in solving a problem.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
d. Ability to explain his/her reasoning in solving a problem in writing.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
e. Ability to use representations to model mathematical ideas.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
f. Ability to use a calculator to solve problems..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
g. Ability to use a graphing calculator to complete mathematics assignments.....	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐

Thank you so much for your time. We look forward to hearing your thoughts about these questions during our upcoming focus group. Please keep these materials in a safe place so you can find and refer back to them easily during the focus group.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-2017 (MGLS:2017)
SCHOOL ADMINISTRATOR COGNITIVE INTERVIEW QUESTIONNAIRE

OMB #: XXXX-XXXX

Expiration Date: XX/XX/20XX



Middle Grades Longitudinal Study of 2016-2017 (MGLS:2017)

School Administrator Cognitive Interview Questionnaire

February 27, 2014

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is XXXX-XXXX. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection.

MIDDLE GRADES LONGITUDINAL STUDY OF 2016-17 (MGLS: 2017): SCHOOL ADMINISTRATOR COGNITIVE INTERVIEW QUESTIONNAIRE

Dear Administrator,

Thank you for agreeing to contribute your knowledge to this project. Decision Information Resources (DIR) and Mathematica Policy Research are working with the National Center for Education Statistics, part of the U.S. Department of Education, to design a new national longitudinal study of how students learn and progress throughout the middle grades. This study, the Middle Grades Longitudinal Study of 2016-17 (or MGLS:2017), will collect information from students, parents, teachers, and school administrators.

This questionnaire includes a few questions for you to review and answer. We are asking that you read over the questions and provide your best response based on your experience as a school administrator. These are questions that administrators across the country will be asked to answer about school factors that may influence student development, motivation, and mathematics learning.

In a few days, you will receive a follow-up call about the topics covered in this letter. The call should take no more than 30 minutes. Your contributions and feedback will help us make these questions clearer for administrators who participate in the national study.

A. SCHOOL CLIMATE AND CULTURE

First, we have several questions about the climate and structure of your school that cover a variety of topics. Many of the topics could be addressed by an administrator, teachers, or other staff. We would like to know if you are the best person at your school to talk to about these topics at your school. If you are not the best person, please note who would be the best type of person to ask about the topic (for example, a department chair, teacher, or other staff).

A1. School safety and security measures, such as – presence of officer, metal detectors, buzzer system

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A2. Organization, such as – rules and expectations

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A3. Supportive relationships for students with peers and adults, for example, teachers support students and students are supported by their peers

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A4. Policies addressing absenteeism

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A5. Student mobility

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A6. Policies addressing student misconduct and bullying

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A7. Number of teachers (full and part time)

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

A8. Years of teacher experience (average across school's teachers)

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

B. SCHOOL SERVICES AND SUPPORTS

We are also interested in the services and supports schools provide to students. Just like the previous question, we'd like to know if you are the best person to talk to about these topics. If you are not the best person, please note who would be the best type of person to ask about the topic (for example, a department chair).

B1. Availability of afterschool/extended learning opportunities

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

B2. Within-school extended class time

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

B3. Level of rigor for mathematics courses

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

B4. Specific course offerings in mathematics

BEST PERSON TO ASK (IF NOT ADMINISTRATOR): _____

C.REACHING SCHOOL ADMINISTRATORS

The school administrator survey will be administered as a web survey. We are planning to send an invitation to participate in the web survey directly to school administrators through their email.

C1. Is an invitation sent directly to your email address the best way to get in contact with you?

If we do not get a response to the email invitation, what would be the best way to follow up? For example, calling and leaving a direct voicemail? Going through the school secretary? Sending a hard copy of the survey via regular mail? Can you think of other alternative ways to contact school administrators?

D.ASSISTING STUDENTS WITH TRANSITIONS

Here, we are interested in the types and levels of assistance made available to students transitioning from elementary to middle school and middle to high school in general (D1. and D3.) and specifically made available by school counselors (D2. and D4.). Please read the following questions and answer.

D1. Does your school organize the transition from the elementary grades to the middle grades in the following ways?

MARK ALL THAT APPLY

a. No transition—middle grades seamlessly continue directly from elementary grades	1 ☐
b. No special activities until students enter middle school	1 ☐
c. Middle grades students share information with the elementary grades students	1 ☐
d. Elementary grades students visit the middle grades students' assembly	1 ☐
e. Elementary grades students attend regular middle grades courses	1 ☐
f. Buddy or big brother/big sister programs that pairs new students with an older student in the fall	1 ☐
g. Parents visit the school or middle grades section while students are still in elementary grades	1 ☐
h. Parents can attend an orientation in the fall after students start middle grades	1 ☐
i. Meetings for elementary grade students during the summer prior to beginning the middle grades	1 ☐
j. Middle grades counselors meet with students while they are still in elementary grades	1 ☐
k. Middle grades and elementary grades teachers meet together on courses and requirements	1 ☐
l. Middle grades and elementary grades administrators meet together on articulation and programs	1 ☐

m. Elementary grades counselors meet with middle grades counselors or staff	1 ☐
n. Other (describe) _____	1 ☐

D2. Do counselors at your school assist students in the transition from the elementary grades to the middle grades?

MARK ALL THAT APPLY

a. Elementary grades counselors meet with middle grades counselors or staff	1 ☐
b. Elementary grades counselors meet with individual elementary grades students and assist them with selecting middle grades courses while they are still in elementary grades	1 ☐
c. Elementary grades counselors present information to elementary grades students' parents or guardians about middle grades courses and registration	1 ☐
d. Elementary grades counselors place elementary grades students into middle grades courses based on school or district placement policies	1 ☐
e. Elementary grades counselors present information to elementary grades students about middle school courses and registration	1 ☐
f. Counselors assist in some other way	1 ☐
g. Counselors do not assist students in the transition from elementary grades to middle grades.	1 ☐

D3. Does your school organize the transition from the middle grades to the high school grades in the following ways?

	MARK ALL THAT APPLY
a. No transition—high school grades seamlessly continue directly from middle grades.....	1 ☐
b. No special activities until students enter high school.....	1 ☐
c. High school grades students share information with the middle grades students.....	1 ☐
d. Middle grades students visit the high school grades students' assembly....	1 ☐
e. Middle grades students attend regular high school grades courses.....	1 ☐
f. Buddy or big brother/big sister programs that pairs new students with an older student in the fall.....	1 ☐
g. Parents visit the high school grades section while students are still in middle grades.....	1 ☐
h. Parents can attend an orientation in the fall after students start high school grades.....	1 ☐
i. Meetings for middle grades students during the summer prior to beginning the high school grades.....	1 ☐
j. High school grades counselors meet with students while they are still in middle grades.....	1 ☐
k. High school grades and middle grades teachers meet together on courses and requirements.....	1 ☐
l. High school grades and middle grades administrators meet together on articulation and programs.....	1 ☐
m. Middle grades counselors meet with high school grades counselors or staff	1 ☐
n. Other (describe) _____	1 ☐

D4. Do counselors at your school assist students in the transition from the middle grades to the high school grades in the following ways?

	MARK ALL THAT APPLY
a. Middle grades counselors meet with high school grades counselors or staff	1 ☐
b. Middle grades counselors meet with individual middle grades students and assist them with selecting high school grades courses while they are still in middle grades.....	1 ☐
c. Middle grades counselors present information to middle grades students' parents or guardians about high school grades courses and registration	1 ☐
d. Middle grades counselors place middle grades students into high school grades courses based on school or district placement policies	1 ☐
e. Middle grades counselors present information to middle grades students about high school grades courses and registration	1 ☐
f. Counselors assist in some other way.....	1 ☐
g. Counselors do not assist students in the transition from middle grades to high school grades.....	1 ☐

E.ADDITIONAL THOUGHTS

- E1.** If you have any other thoughts or questions about the topics included in this questionnaire, please note them below and share on your follow-up call.

**Again, thank you for helping us improve our questionnaire.
We look forward to hearing your thoughts about these questions during our follow-up call.
Please keep these materials in a safe place so you can find and refer back to them easily
during the call.**