Math Follow-Up Student Focus Group/Interview Coding Scheme
11-8-17

General Coding Procedure
- You will code in the FileMaker coding database, which will be accessible via the web:
  https://fmserver.peabody.vanderbilt.edu/fmi/webd/#
  - In this database, you can also take notes about questions you have and keep track of good quotes that we might want to use later.
- When coding focus groups, the group will receive that code even if only one student shared that opinion. Essentially, the code indicates if that thought was present in any of the students.
- These codes are not mutually exclusive (students could talk about many of these things in the same session).
- Use coding as an opportunity to pull particularly representative quotes so that we can use them in presentations and papers later. You can keep these notes on a special layout in FileMaker. Please read through all notes for each topic to look for quotes.
- For all codes, only code things that you are 100% sure the student said and not things that the facilitator said that are unclear whether it's the facilitator summarizing a student's ideas or adding his/her own thoughts.
- Students have to explicitly mention an activity for that activity to be coded. For example, a student generally saying "I like all of these" doesn't provide enough information to code "like" for any specific activity.
  - An exception to this is Small Group vs. Small Group Teacher. If a student *only* say "groups", you can assume that he/she is talking about small group without the teacher. In other words, the student must specifically reference the teacher being in the group for small group teacher to be coded.
- If a student references "small group projects" during the middle school section, code that under "small groups" (unless the teacher is referenced as well, in which case you would code "small group with teacher").
- If a student references more than one codable activity in a statement, you can code both activities. For example, if a student says, "I like playing math games like dominos; you would have on the worksheet to put things in a certain order, and you got a reward for doing something right", you could code "like" for games and worksheets, as well as the specific reason liked ("reward") for both activities.
- Unless it is clear the student has gone off topic, assume that he/she is answering the question which was asked.

Middle School Section

The coding structure for the Middle School questions is as follows:

- o   Question A1 ("Which of these happen in your math class?"): There is nothing to code for this question.
- o   **Question A2** ("Which of these do you like? Why?"): **Code reasons why students like/dislike particular activities (see coding scheme below).**
- o   **Question A3** ("What are some other things that you wish could happen in your math class that you didn't see in any of the pictures?"): There is nothing to code for this question, but **please read the notes and add any especially powerful quotes to the "Quotations" layout in FileMaker.**
- o   **Question B1** ("In your math class, is there just one way to solve a problem? Or does your teacher let you use different ways?"): **Check the count fields for this question.**
- o   Question B2 (Think about solving problems in math class. Who usually decides whether you have the right answer?"): There is nothing to code for this question.

Codes	Description	Example(s)
Games		
MGLIKE	Remembered liking to play games in middle school	
MGFUN	Liked playing middle school games because they were fun. To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	Games are a fun way to learn. Playing games because it's fun, free time instead of doing a lot of work.
MGCONF	Liked playing middle school games because they were easy, made you feel good about what you know (confidence), and/or because you could show the class or the teacher how smart you were.	
MGHELP	Liked playing middle school games because it helped students to learn.	When we play Cahoot, it helped me.
MGPEER	Liked playing middle school games because it involved interacting with peers.	Playing math games because you have friends to work with and help you.
MGREW	Liked playing middle school games because of the rewards. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	When we won the game the teacher gave us candy.
MGOTH	Liked playing middle school games for other reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	The teacher let us make up a math game, I like that.
MGLNR	Student liked middle school games, but no reason was specified for why	
MGDIS	Remembered disliking games in middle school	
MGDOTH	Disliked playing middle school games for other reasons not captured in our coding scheme.	I don't like playing games. I like learning about stuff in serious ways.

	(Note: Please record the reason(s) provided in the notes box in FileMaker.)	
MGDNR	Student <u>dis</u>liked <u>middle</u> school <u>games</u>, but <u>no reason</u> was specified for why	
MGND	<u>Middle</u> school <u>games</u> <u>not</u> discussed	
Comparing Solutions		
MCSLIKE	Remembered <u>liking</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school	
MCSFUN	Liked <u>comparing</u> <u>solutions</u> in <u>middle</u> school because it was <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	
MCSCONF	In <u>middle</u> school, liked <u>comparing</u> <u>solutions</u> because it was easy, made you feel good about what you know (<u>confidence</u>), and/or because you could show the class or the teacher how smart you were.	
MCSHELP	Liked <u>comparing</u> <u>solutions</u> in <u>middle</u> school because it <u>helped</u> students to learn.	Comparing different ways to solve a problem because you can have a better understanding, due to others having different ideas.
MCSREW	Liked <u>comparing</u> <u>solutions</u> in <u>middle</u> school because <u>rewards</u> were part of the activity. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	
MCSLOTH	<u>Liked</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MCSLNR	Student <u>liked</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school, but <u>no reason</u> was specified for why	
MCSDIS	Remembered <u>disliking</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school	
MCSDOTH	<u>Disliked</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MCSDNR	Student <u>disliked</u> <u>comparing</u> <u>solutions</u> in <u>middle</u> school, but <u>no</u> <u>reason</u> was specified for why	
MCSND	<u>Comparing</u> <u>solutions</u> in <u>middle</u> school <u>not</u> discussed	

Showing Work on the Board		
MSWLIKE	Remembered liking showing work in middle school	
MSWFUN	Liked showing work in middle school because it was fun. To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	Students showing their work on the board. It's fun.
MSWCONF	In middle school, liked showing work because it was easy, made you feel good about what you know (confidence), and/or because you could show the class or the teacher how smart you were.	I like working it out on the board because I feel like the teacher when I'm working it out, 'cause I'm like explaining it and writing it. Putting the answers on the board. Because you get to show how smart you are.
MSWHELP	Liked showing work in middle school because it helped students to learn.	I like how students show their work on the board. When I get the wrong answer, they take the information and help us get the right answer.
MSWREW	Liked showing work in middle school because rewards were part of the activity. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	Students show their work on the board. I like showing my work because we get extra points…It's like extra points to your grades.
MSWLOTH	Liked showing work in middle school for other reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	I like to do work on the board because I can show the teacher what I did. I like doing hands-on work at the board. I like working on the board because it feels like a competition. Writing on the board because I don't like to sit all the time.
MSWLNR	Student liked showing work in middle school, but no reason was specified for why	
MSWDIS	Remembered disliking showing work in middle school	
MSWDOTH	Disliked showing work in middle school for other reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	I don't like to go to the board because people sometimes get it wrong in front of other people and they feel bad when people correct them.
MSWDNR	Student disliked showing work in middle school, but no reason was specified for why	
MSWND	Showing work in middle school not discussed	
Small Group Work with Teacher		
MSGTLIKE	Remembered liking working in small groups with the teacher in middle school	

MSGTFUN	Liked working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school because it was <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	
MSGTCONF	In <u>middle</u> school, liked working in <u>small</u> <u>groups</u> with the <u>teacher</u> because it was easy, made you feel good about what you know (<u>confidence</u>), and/or because you could show the class or the teacher how smart you were.	
MSGTHELP	Liked working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school because it <u>helped</u> students to learn.	The teacher works with us in small groups, and we get a better understanding of the work. We might not understand so she can help us. I like small groups with teacher. You can get confused with students. The math teacher makes it clearer.
MSGTATT	Liked working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school because they could have more <u>attention</u> from the teacher.	When we work in small groups with the teacher so they can answer my questions right away—we get more attention.
MSGTREW	Liked working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school because <u>rewards</u> were part of the activity. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	
MSGTLOTH	<u>Liked</u> working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MSGTLNR	Student <u>liked</u> working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school, but <u>no</u> <u>reason</u> was specified for why	
MSGTDIS	Remembered <u>disliking</u> working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school	
MSGTDOTH	<u>Disliked</u> working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MSGTDNR	Student <u>liked</u> working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school, but <u>no</u> <u>reason</u> was specified for why	
MSGTND	Working in <u>small</u> <u>groups</u> with the <u>teacher</u> in <u>middle</u> school <u>not</u> <u>discussed</u>	

Small Group Work without Teacher		
MSGLIKE	Remembered liking working in small groups in middle school	
MSGFUN	Liked working in small groups in middle school because it was fun. To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	Working in groups for me is fun.
MSGCONF	In middle school, liked working in small groups because it was easy, made you feel good about what you know (confidence), and/or because you could show the class or the teacher how smart you were.	
MSGHELP	Liked working in small groups in middle school because it helped students to learn	We can help each other. I like small groups because you can help other kids. I like working in groups because if you don't understand a problem, sometimes another person in your group can explain.
MSGPEER	Liked working in small groups in middle school because it involved interacting with peers. This code differs from MSGOPIN because here students mention more generally that they like working with peers for social reasons or because it generally helps them, but they don't mention specifically that it has to do with hearing others' ideas.	I like working in small groups because you get to solve a problem like a team and help each other. I like small groups. I like talking, but not about math. Working in groups so you can be with who you want to work with.
MSGSOC	Liked working in small groups in middle school for social reasons.	I like small groups. I like talking, but not about math. Working in groups so you can be with who you want to work with.
MSGOPIN	Liked working in small groups in middle school because they can hear other students' opinions and what they think. This code differs from MSGPEER because here students specifically mention that working with other students is beneficial for them because they get to hear the other students' thoughts.	I like working in small groups because I can hear others' opinions. I like working in groups because if you don't understand a problem, sometimes another person in your group can explain.
MSGREW	Liked working in small groups in middle school because rewards were part of the activity. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	
MSGLOTH	Liked working in small groups in middle school for other reasons not captured in our coding scheme.	It's faster if you work together.

	(Note: Please record the reason(s) provided in the notes box in FileMaker.)	
MSGLNR	Student <u>liked</u> working in <u>small groups</u> in <u>middle</u> school, but <u>no reason</u> was specified for why	
MSGDIS	Remembered <u>disliking</u> working in <u>small groups</u> in <u>middle</u> school	
MSGDOTH	<u>Disliked</u> working in <u>small groups</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MSGDNR	Student <u>disliked</u> working in <u>small groups</u> in <u>middle</u> school, but <u>no reason</u> was specified for why	
MSGND	Working in <u>small groups</u> in <u>middle</u> school <u>not discussed</u>	
Worksheets		
MWLIKE	Remembered <u>liking</u> <u>worksheets</u> in <u>middle</u> school	
MWFUN	Liked doing <u>worksheets</u> in <u>middle</u> school because they were <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	Likes working on worksheets because some of them are interesting.
MWCONF	In <u>middle</u> school, liked doing <u>worksheets</u> because they were easy, made you feel good about what you know (<u>confidence</u>), and/or because you could show the class or the teacher how smart you were.	
MWHELP	Liked <u>worksheets</u> in <u>middle</u> school because it <u>helped</u> students to learn.	It helps me learn better. I like worksheets because we can practice and learn it better.
MWIND	In <u>middle</u> school, liked working on <u>worksheets</u> because it was an <u>individual</u> activity.	Doing worksheets because I like doing work by myself.
MWLOTH	<u>Liked</u> doing <u>worksheets</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	I like worksheets because they're different. Or the teacher won't talk as much. Worksheets because I get done faster.
MWLNR	Student <u>liked</u> doing <u>worksheets</u> in <u>middle</u> school, but <u>no reason</u> was specified for why	
MWDIS	Remembered <u>disliking</u> <u>worksheets</u> in <u>middle</u> school	
MWBOR	In <u>middle</u> school, disliked doing <u>worksheets</u> because they are <u>boring</u> or not interesting.	Sometimes it gets boring doing worksheets all the time.

MWDOTH	<u>Dis</u>liked doing <u>worksheets</u> in <u>middle</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
MWDNR	Student <u>disliked</u> doing <u>worksheets</u> in <u>middle</u> school, but <u>no</u> <u>reason</u> was specified for why	
MWND	<u>Middle</u> school <u>worksheets</u> <u>not</u> <u>discussed</u>	

Elementary School Section

The coding structure for the Elementary School questions is as follows:

- o Question A1 ("Which activities did your Kindergarten, 1st, and 2nd grade teachers use to help you learn math?"): There is nothing to code for this question.
- o **Question A2** ("Of the activities that your Kindergarten, 1st, and 2nd grade teachers used, which did you like to do? Why?"): **Code reasons why students like/dislike particular activities (see coding scheme below).**
- o **Question A3** ("Do you have any other general memories of what your Kindergarten, 1st, and 2nd grade teachers did to help you learn math?"): **There is nothing to code for this question, but please read the notes and add any especially powerful quotes to the "Quotations" layout in FileMaker.**
- o **Question A4** ("Did you like learning math more in your early elementary grades or middle school grades? Why?"): **Check the count fields for this question, and use the coding scheme below to code reasons why students chose elementary school or middle school.**

Codes	Description	Example(s)
Overall Code: Rewards		
REW	Student remembers receiving a <u>reward</u> in elementary school (e.g., piece of candy, tickets, etc.) *(Note: This should be coded if a student mentions receiving a reward at <u>any</u> point during the Elementary School section.)*	We had fake money, and we could use it buy stuff. [Facilitator: How did you get the money?] If you answer the question right, good behavior and doing what we are supposed to do to get the money.
Elementary Activities Liked/Disliked (Question A2)		
Games		
EGLIKE	Remembered <u>liking</u> to play <u>games</u> in <u>elementary</u> school	
EGFUN	Liked <u>elementary games</u> because they were <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	I really liked playing games because you were learning but it was fun too.
EGHELP	Liked playing <u>elementary</u> school <u>games</u> because it <u>helped</u> students to learn.	If I understand the math game, it will help me out in the future. Then I'm going to want to play more math games to learn more, and my math will get a little stronger, mental math. Playing math games. Because it could help you with your numbers and stuff.
EGREW	Liked playing <u>elementary</u> school <u>games</u> because of the <u>rewards.</u> *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	We did math bingo. [Facilitator: And you remember liking that?] 'Cause she would reward us with candy.
EGLOTH	<u>Liked</u> playing <u>games</u> in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme.	I liked playing games because I was hyper. We did group work and played. Like All Around the World. If you answer

	(Note: Please record the reason(s) provided in the notes box in FileMaker.)	the problem and get it right, you could move to other places.
EGLNR	Student liked playing games in elementary school, but no reason was specified for why	
EGDIS	Remembered disliking games in elementary school	
EGDOTH	Disliked playing games in elementary school for other reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
EGDNR	Student disiked playing games in elementary school, but no reason was specified for why	
EGND	Elementary school games not discussed	
Sharing with the Class		
ESHLIKE	Remembered liking sharing with the class in elementary school	
ESHFUN	Liked sharing with the class in elementary school because it was fun. To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	It was fun to talk in front of the class like my teacher did.
ESHCONF	In elementary school, liked sharing with the class because it was easy, made you feel good about what you know (confidence), and/or because you could show the class or the teacher how smart you were.	I liked to show my work on the board because then everyone would know how smart I was. I liked sharing strategies in class because I thought I was the smartest one.
ESHHELP	Liked sharing with the class or teacher in elementary school because it helped students to learn.	I liked sharing with friends because sometimes they know an easier way. Sharing my answer with the teacher. She would help me correct it when I get it wrong, then when I get it right, I can understand it.
ESHREW	Liked sharing with the class in elementary school because rewards were part of the activity. *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	When I wrote my answer on the board, if I got it right, my teacher would give me candy.
ESHLOTH	Liked sharing with the class in elementary school for other reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	I liked letting people know how I got my answer and showing them how to do it my way.

ESHLNR	Student <u>liked</u> <u>sharing</u> with the class in <u>elementary</u> school, but <u>no reason</u> was specified for why	
ESHDIS	Remembered <u>disliking</u> <u>sharing</u> with the class in <u>elementary</u> school	
ESHDOTH	<u>Disliked</u> <u>sharing</u> with the class in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
ESHDNR	Student <u>disliked</u> <u>sharing</u> with the class in <u>elementary</u> school, but <u>no reason</u> was specified for why	
ESHND	<u>Sharing</u> with the class in <u>elementary</u> school <u>not</u> <u>discussed</u>	
Small Group with Teacher		
ESGLIKE	Remembered <u>liking</u> working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school	
ESGFUN	Liked working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school because it was <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	
ESGCONF	In <u>elementary</u> school, liked working in <u>small</u> <u>groups</u> with the teacher because it was easy, made you feel good about what you know (<u>confidence</u>), and/or because you could show the class or the teacher how smart you were	Student likes sharing her math with the teacher and showing her that she knew how to do it.
ESGHELP	Liked working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school because it <u>helped</u> students to learn	The teacher helps you to see if you are right. When she [the teacher] would come over in groups. Because she would always give us the answer if we kept asking.
ESGREW	Liked working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school because <u>rewards</u> were part of the activity *(Note: Rewards could include tangible things like candy, as well as intangible things like teacher praise.)*	
ESGLOTH	<u>Liked</u> working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	Sharing the math solution with the teacher. If you got it right, you would be happy. The teacher was fun.

ESGLNR	Student <u>liked</u> working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school, but <u>no</u> <u>reason</u> was specified for why	
ESGDIS	Remembered <u>disliking</u> working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school	
ESGDOTH	<u>Disliked</u> working in <u>small groups</u> with the teacher in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
ESGDNR	Student <u>disliked</u> working in <u>small</u> <u>groups</u> with the teacher in <u>elementary</u> school, but <u>no</u> <u>reason</u> was specified for why	
ESGND	Working in <u>small</u> <u>groups</u> in <u>elementary</u> school <u>not</u> <u>discussed</u>	
Worksheets		
EWLIKE	Remembered <u>liking</u> <u>worksheets</u> in <u>elementary</u> school	
EWFUN	Liked doing <u>worksheets</u> in <u>elementary</u> school because they were <u>fun.</u> To get this code, students must specifically mention interest level (key words would include things like fun, interesting, not boring).	It was fun to do worksheets because you got to cut out shapes and glue them to the paper. The worksheets were fun.
EWCONF	In <u>elementary</u> school, liked doing <u>worksheets</u> because they were easy, made you feel good about what you know (<u>confidence</u>), and/or because you could show the class or the teacher how smart you were.	When you were doing math worksheets, and you were the first one to get done, it just felt like you were like the man. I liked working on math worksheets and showing the teacher what I knew. I love math and it comes easy to me so doing worksheets is kind of easy.
EWHELP	Liked <u>worksheets</u> in <u>elementary</u> school because it <u>helped</u> students to learn.	On our worksheets, we'd work alone, and then after we get to work with a partner and help each other, learn from mistakes.
EWIND	In <u>elementary</u> school, liked working on <u>worksheets</u> because it was an <u>individual</u> activity.	I like working by myself.
EWLOTH	<u>Liked</u> doing <u>worksheets</u> in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	[I liked] worksheets because even if sometimes I didn't get it here or there, I would take 'em home, and my parents would see what we were doing and they could help me out. It actually made me feel like the older child 'cause back then, if you had a worksheet, it was like having a textbook. Like you felt smart.

EWLNR	Student <u>liked</u> doing <u>worksheets</u> in <u>elementary</u> school, but <u>no reason</u> was specified for why	
EWDIS	Remembered <u>disliking</u> <u>worksheets</u> in <u>elementary</u> school	
EWDOTH	<u>Disliked</u> doing <u>worksheets</u> in <u>elementary</u> school for <u>other</u> reasons not captured in our coding scheme *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	
EWDNR	Student <u>liked</u> doing <u>worksheets</u> in <u>elementary</u> school, but <u>no reason</u> was specified for why	
EWND	<u>Elementary</u> school <u>worksheets</u> <u>not</u> <u>discussed</u>	

Elementary vs. Middle School Preference (Question A4)		
EPREF	Preferred Elementary School	
EE	Elementary school was easier.	It was easier to follow things in Elementary. Middle school teachers push us way too hard.
EF	Elementary school was more fun and had more activities.	Elementary school math was taught in a more fun way. In elementary school, we used different kinds of activities like blocks and counting marshmallows instead of just things on paper.
EOTH	Elementary school was better for some other reason that is not captured in our other codes. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	Elementary teacher would sit with me and talk me through how to do things. Elementary students helped each other more. Here [in middle school] they don't care if we get it.
MPREF	Preferred Middle School	
MC	Middle school is more challenging/advanced and/or helps prepare you more for the future.	Middle school started challenging me. Middle school is more challenging and you explain answers more. Now [in middle school] we're learning stuff that we need for our jobs later so it's better.
MOTH	Middle school is better for some other reason that is not captured in our other codes. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	The way they teach things in middle school helps you get it faster.
S	Liked elementary and middle school math the same (for now we will not differentiate between all of their reasons for liking them the same)	I like them the same as long as I know how to solve things.

Jobs/Professions Section

The coding scheme for question A1 ("Which of these professions use math?") is as follows:

Codes	Description	Example(s)
Type of Math Used in Jobs (Question A1)		
COUNT	Profession involves <u>counting</u> or <u>sorting</u>	Factory worker. They have to count all the boxes.
MEAS	Profession involves <u>measurement</u>	A scientist uses math because you have to measure how much you need to put in there or what kind of amount do you have. Chef has to measure so the food you make is proportional and tastes the same.
ARITH	Profession involves <u>arithmetic</u> or "easy math". Arithmetic is defined as simply adding, subtracting, multiplying, or dividing without involving any other kind of more complicated mathematics.	Teacher uses math because they have to add, subtract, figure out problems.
GEO	Profession involves <u>geometry</u>	And basketball people need a lot of math. They…need to know the angles they're going to shoot the ball.
STATS	Profession involves <u>statistics</u>	Athlete. Because they use statistics all the time…So like, if you was describing how a player works on the court, then you would say how many rebounds they got, how many fouls, how many steals.
OTHMATH	Profession involves some <u>other kind of more sophisticated math</u> not captured with our other codes. This will capture more complicated types of math, such as fractions or calculating rates of change. *(Note: Please record the reason(s) provided in the notes box in FileMaker.)*	I said truck driver because you know, they have to calculate how long it's going to take to get wherever they're going to drop off their order they're taking.
NDMATH	No discussion of why/how jobs use math	
Why Students Like a Career they think <u>USES</u> Math (Question A2)		
UMON	Makes a lot of <u>money</u>, the student specifically mentions money or finances as a reason for liking a career. This can include mentioning earnings or potential perks like discounts.	A scientist makes a lot of money. Basketball players get money. A soldier because I would have enough money so I could take care of my family.
UENJOY	Involves a fun activity (e.g., cooking or playing sports) or the student mentions they want to do a job because they <u>enjoy</u> an aspect of it (e.g., I want to be a politician because I like to argue.)	I really like to cook. Chemistry is really fun.

UHELP	<u>Helps</u> other people, can include taking care of their family	I want to be a nurse to help make other people feel better. A solider because I would have enough money so I could take care of my family.
UOTH	They know <u>other</u> people personally who do that career or have seen it themselves, even if they don't necessarily say they thought that would be a great career for them	My aunt is a nurse and said that's a good career for me.
UMATH	They like that the career uses <u>math.</u> This must include them saying they like the career **because** it uses math (not just that they like it *and* it uses math).	Professions that don't use math are boring. I like using money and counting.
UEASY	They like that the career would be <u>easy</u>	I'd like sorting things in the warehouse because it would be easy.
UNONE	Do <u>not</u> provide an indication of why they like a career or say "don't know"; none of the above codes apply	I just think I'd like it.
Why Students Like a Career they <u>DO NOT</u> think Uses Math (Question A3)		
DMON	Makes a lot of <u>money</u>, the student specifically mentions money or finances as a reason for liking a career. This can include mentioning earnings or potential perks like discounts.	A scientist makes a lot of money. Basketball players get money. A soldier because I would have enough money so I could take care of my family.
DENJOY	Involves a fun activity (e.g., cooking or playing sports) or the student mentions they want to do a job because they <u>enjoy</u> an aspect of it (e.g., I want to be a politician because I like to argue.)	I really like to cook. Chemistry is really fun.
DHELP	<u>Helps</u> other people, can include taking care of their family	I want to be a nurse to help make other people feel better. A solider because I would have enough money so I could take care of my family.
DOTH	They know <u>other</u> people personally who do that career or have seen it themselves, even if they don't necessarily say they thought that would be a great career for them	My aunt is a nurse and said that's a good career for me.
DMATH	They like that the career *doesn't* use <u>math.</u> This must include them saying they like the career **because** it doesn't use math (not just that they like it *and* it doesn't use math).	Professions that use math are boring. I'm not a math person, so it's a good job for me.
DEASY	They like that the career would be <u>easy</u>	I'd like working in the warehouse because it would be easy.
DNONE	Do <u>not</u> provide an indication of why they like a career or say "don't know"; none of the above codes apply	I just think I'd like it.