

This activity “*what is math engagement*” was done in the Group kick off meeting (June 2023), a meeting in the *partner* stage of CEnR. The goals of the activity were:

- To engage our student and teacher partners in conceptualizing what our topic of interest (i.e., math engagement) is.
- To practice making meaning of data. Specifically, this activity is a light-touch version of thematic analysis.
- To uplift our student and teacher partners’ lived experiences and thoughts. We did this by using interview responses from their own individual onboarding meetings as data.

### **Activity instruction:**

- We will be in groups of 3 people. (*this allows time and space for everyone to contribute*)
- Remind the group that in their Individual onboarding meetings (June 2023), we asked them about their experiences and thoughts on math engagement. This activity uses their responses (\*de-identified) as data.
- From their interview responses, we heard various ideas about "what math engagement is." Each Post-it note is one of those ideas, accompanied by a definition and a quote (see screenshot below for examples). Read through the ideas each of you shared. (7 minutes)

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Learn more about the Adapted Measure of Math Engagement at <https://www.childtrends.org/project/adapted-measure-of-math-engagement>.

## Adapted Measure of Math Engagement

Concept	Definition	Example Quote
<b>Asks questions (or for help)</b>	Refers to students asking (or not asking) questions or for help within the class.	<i>An engaged student asks questions. When they don't know, they ask for help.</i>
<b>Completes classwork or homework</b>	Refers to students working on (or not working on) classwork or homework.	<i>Everyone has homework, but not everyone chooses to do it.</i>
<b>Gets distracted</b>	Refers to students being distracted in class (e.g., technology, other students, daydreaming).	<i>A student who has chosen to not engage in the moment they are normally on their phone, sometimes heads down and sleeping.</i>
<b>Help others</b>	Refers to students helping others in class.	<i>Tell me about a time you were engaged in math. Response: Helping other people. I struggled with math in 6th grade so I know how it feels. Now I know how to help others.</i>
<b>Participates in class</b>	Refers to students broadly participating in class (e.g., raising their hand, sitting up straight).	<i>An engaged student participates in math class a lot most of the time. She participates by raising her hand, going to the board, and other activities in the class</i>

- The task *as a group*: arrange the ideas into "buckets" of similar or related ideas. Write down what each bucket describes (20 minutes). See screen shots below for two examples.

Adapted Measure of Math Engagement

What math engagement is

**people**

This means responses you would most likely get if you interviewed somebody one-on-one. For example, "Everybody has homework but not everybody does it." That is something that varies from every person.

When you ask people these kinds of questions, their responses could be vastly different from people to people.

Completes classwork or homework	Pay attention	Treats everyone the same
Feels math is relevant	Feel frustrated	Family obligations
Enjoy learning	Cultural resources	Feels confident and easy

4

Relationships with teachers	Family support	resources
Technology	Think hard	

2

Not putting in extra effort	Gets distracted	Feel judged
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obstacles stopping engagement

4

engagement

engagement	Understand mistakes	Work with peers
	Participates in class	Asks questions (or for help)
Help others	Basic Resources	Interactive class

1

resources & obstacles

School-Based Programs

reword better

Relationships with students	Acknowledges Privilege
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5

What math engagement is

Treats everyone the same	Cultural resources	respect
Acknowledges Privilege		

2

Basic Resources	School-Based Programs	Interactive class
Feel frustrated	Technology	resources

5

classroom environment

Gets distracted	Pay attention
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3

communication with teacher

Understand mistakes	Feel judged
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1

understanding math

Feels confident and easy	Completes classwork or homework
Feels math is relevant	Enjoy learning

7

Asks questions (or for help)
 Participates in class | Work with peers |

Not putting in extra effort
 Think hard | participation |

8

Relationships with students	Relationships with teachers	relationships
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4

family help

Family support	Family obligations	Help others
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6

- Come back to a large group and share out.
  - Share 2 buckets:
    - What is the bucket called and what ideas are in that bucket?
  - Any ideas that surprised you? Hard to put into buckets?
  - Any ideas that you really like?