

# Kick-Off Meetings



Adapted Measure of Math Engagement Research Group,  
June 2023



# Agenda

## Day 1 - Individual Meetings

- Project Overview
- Math Engagement

## Day 2 - Group Meeting

- Team Building
- Project Overview
- Math Engagement



# Day 2: Group Meeting



# Team Building

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## Get to know each other

Create space to get to know the members of the AM-ME Research Group.

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## Activity

Establish group norms for the AM -ME Research Group.

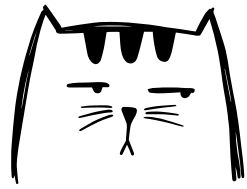
# Team Building Activity



Find a partner and share:

- 1) Your name.
- 2) Your pronoun.
- 3) Why you pick the number your picked.
- 4) A fun fact about yourself!

# Team Building Activity



Honestly, I'm  
not that excited  
about this  
project!



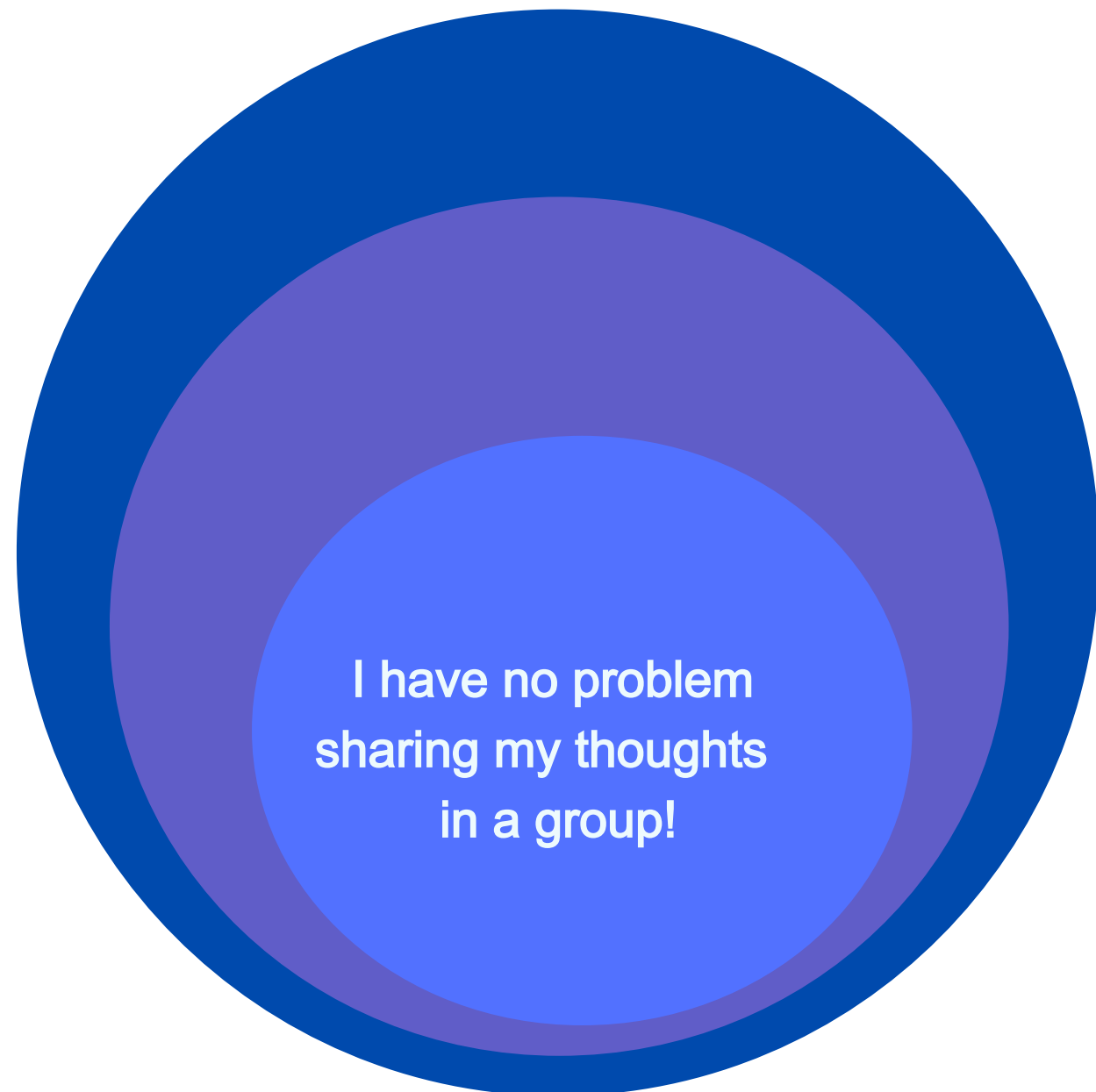
I can't wait to  
jump into this  
project!!

Find a *different* partner and share:

- 1) Your name.
- 2) Your pronoun.
- 3) What excites you about this project?
- 4) What about this project are you unsure about?

# Team Building Activity

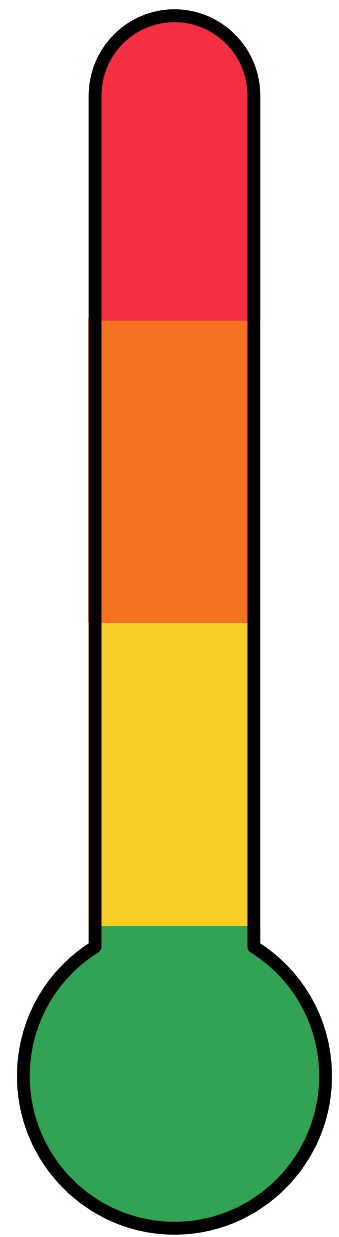
Sharing my thoughts  
in a group makes me  
very anxious!



Find yet another *different* partner and share:

- 1) Your name.
- 2) Your pronoun.
- 3) How do you like to describe yourself?

# Team Building Activity



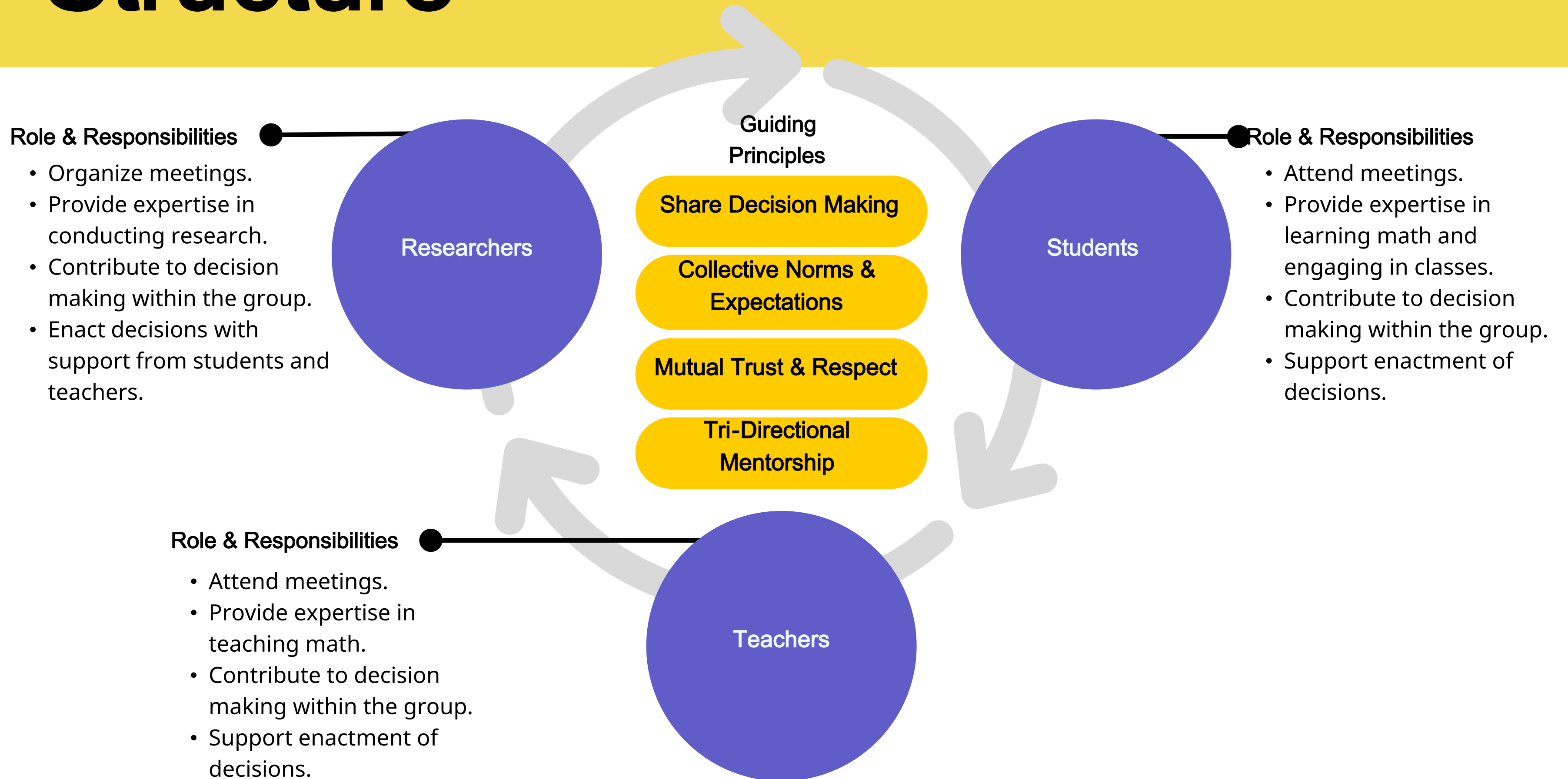
Math gives me  
a lot of pain!

Math gives me  
a lot of joy!

Find a partner who you haven't talked to  
already and share:

- 1) Your name.
- 2) Your pronoun.
- 3) What is your favorite subject and why?

# Structure



# Group Norms Activity

**Each person takes 5 minutes to reflect on their own. Write ideas on Post-its:**

- What helps you feel successful when working in groups? (For example, people being on time, clear objectives, respect each other's opinions.)
- How can we ensure everyone feels comfortable sharing their perspective?
- How are we going to make decisions together?
- How should we handle disagreements or conflict?

# Group Norms Activity

We'll put all the Post -it notes on a white board, then we'll invite everyone to indicate their agreement with Post -its that resonate with them.

Go around the room and everyone share something that stuck out to them.

# Project Overview

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## Overview of AM -ME Research Group

Discuss the AM -ME Research Group.

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## Overview of Research

Discuss social science research and essential elements of research.

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## Overview of Project

Discuss the Adapted Measure of Math Engagement (AM -ME) project.

# Overview of Research

- **Social Science Research** is the activity of gathering, analyzing, and interpreting data to understand a phenomenon, situation, or behavior within the social, economic, educational, and/or political fields.
  - *Example.* Conducting research to understand the different ways in which students engage in math.
- **Data** is any information that has been collected, observed, generated, or created to inform a research question.
- **Why do we conduct research?** To increase our knowledge and improve the world around us.

# Examples of Youth -Led Research



MENU

WHAT WE DO

## KSVT RESEARCH

As innovators of youth-led education research, we collect, analyze, and share data about a range of student experiences with policymakers and the public. Our studies include examinations of the effects of racial and ethnic identity on learning; the social, emotional, and academic impacts of the COVID-19 pandemic; and what students need to feel safe, engaged, and included in their school communities.



[Learn More](#)



Home About Amplify Empower Thrive Happenings Connect/Join



## AMPLIFY

We listen to the stories of students across Oregon and partner with K-12 decision makers to improve students' experiences.

[Learn More](#)

# Examples of Teacher -Led Research



[Learn More](#)

## INDIGENOUS STEAM COLLABORATIVE

The Indigenous STEAM Collaborative is a group of researchers and educators that engages in cognitive and community co-design research to advance general knowledge, develop pedagogical approaches for engaging youth in land- and water-based learning, and provide learning materials to Indigenous families. We investigate how people reason about relationships in the natural world and develop teaching approaches to enhance learning. We apply what we learn to the development of learning tools for Indigenous youth and families, through collaboration with community organizations, educators, and families. Our research and collaborations are currently funded by a grant from the National Science Foundation.

# Essential Elements of Research

**1**

**Goals:** Why are we conducting the research?

**2**

**Questions:** What questions will guide the research being conducted?

**3**

**Activities:** How will we collect data to answer our research questions?

**4**

**Analysis:** How will we analyze data to answer our research questions?

**5**

**Dissemination:** How will we share our findings?

# 1 AM-ME Project Goals

- What is the purpose? A three year project to develop a survey of Black and Latino student math engagement, called the **Adapted Measure of Math Engagement** (AM-ME).
- What are the goals?
  - Understand Black and Latino students' engagement in math;
  - Adapt and refine a survey of student engagement to better capture Black and Latino student's experiences; and
  - Understand how students' math engagement supports academic and socio-emotional outcomes.

# 1 AM-ME Project Goals



## Why are we conducting this project?

- To increase our knowledge of how **Black and Latino students engage in math** .
  - Research on Black and Latino student engagement is often based on deficit-based perspectives, which has failed to capture the many important ways that math can be engaging for these students.
- To provide data that **center and uplift Black and Latino students' experiences in math** .
- To provide **actionable data for improving instruction** to support Black and Latino students' engagement in math.

# **1 Question and Answer**

 **What questions do you have about the project goals?**

 **What do you like about the project goals?**

 **What would you change about the project goals?**

# ② AM-ME Project Research Questions

- ① What does it mean for Black and Latino middle and high school students to be engaged in math classes?
- ② What are the different concepts that make up Black and Latino middle and high school students' math engagement?
- ③ How is Black and Latino middle and high school students' math engagement associated with student academic and socio-emotional outcomes?

# 2 Question and Answer

➤ What questions do you have about the research questions?

➤ What do you like about the research questions?

➤ What would you change about the research questions?

# Math Engagement



## Overview of Math Engagement

Discuss how researchers define math engagement.

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## Activity

Discuss how we understand math engagement.

# What is Student Engagement?



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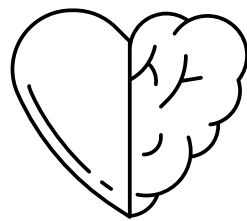
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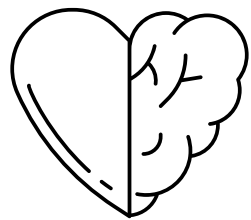
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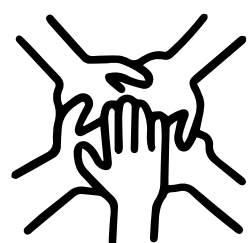
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**Social Engagement:** Positive and constructive social interactions with peers and adults (e.g., work in teams). Invest in building and maintaining relationships while learning.

# Why is math engagement important?

- Math engagement promotes positive math outcomes (e.g., math score) and reduces negative outcomes (e.g., dropping out).
- Black and Latino individuals are underrepresented in math and other fields that heavily use math ("STEM", Science, Technology, Engineering, and Math).
- To date, research on Black and Latino student engagement is often based on deficit-based perspectives, which has failed to capture the many important ways that math can be engaging for these students.
  - *"Black students do not have the grades for advanced math" → "The way we talk about math is not engaging with Black students"*

# Math Engagement Activity

We will be in groups of 3 people.

Remember our individual meeting a couple of weeks ago when we asked you about your experiences and thoughts on math engagement?

1. Each Post-it note is an idea about "what math engagement is". Read through the ideas each of you shared. (**7 minutes** )
2. The task *as a group*: arrange the ideas into "buckets" of similar or related ideas. Use the **blue** Post-it notes to write down what each bucket describes. (**20 minutes** )
3. Share out to the large group:
  - a. Share 2 buckets: what is the bucket called and what ideas are in that bucket?
  - b. Any ideas that surprised you? Hard to put into buckets?
  - c. Any ideas that you really like?

# Closing

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## Feedback for Us

Let us know what you liked and what you hope is changed for the next meeting.

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## Next Meeting *(online, just pick one!)*

- July 17 (Monday), 4-5 pm
- July 20 (Thursday), 5:30-6:30 pm
- July 21 (Friday), 10-11 am

# Stay Connected



Diane Hsieh



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This project is funded by the National Science Foundation, grant #2200437. Any opinions, findings, and conclusions or recommendations expressed in these materials are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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