

# Kick-Off Meetings



Adapted Measure of Math Engagement Research Group,  
June 2023



# Agenda

Under Construction

## Day 1 - Individual Meetings

- Project Overview
- Math Engagement

## Day 2 - Group Meeting

- Team Building
- Project Overview
- Math Engagement



# Day 1: Individual Meetings

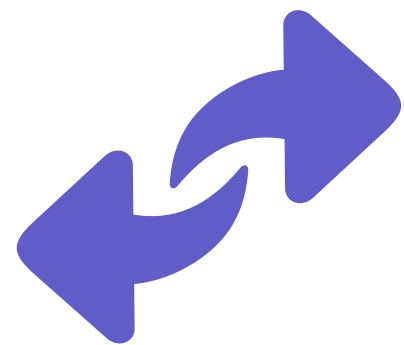


# Welcome Activity



Pick 2 from below and share :

- A fun fact about you!
- Something that you want the AM-ME Research Group to know about you.
- Your favorite color and why.
- Something that people won't know about you by just looking at you.
- What is one thing that made you smile this week?



Anything you'd like to know about us?



Hi!

# Norms for Today

1

**Information Sharing:** For the first 30 minutes of the meeting, we are going to share a lot of information about research and this project. This is intended to help you get connected to the project!

2

**Ask Questions:** Interrupt us if you have questions!

3

**Pauses for Questions:** We will pause often to see if you have questions!

4

**Getting to Know You Better:** For the last 30 minutes of the meeting, we are going to ask you some questions in order to better get to know you! This will help us shape your experience!

# 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.

# AM-ME Research Group



## Why are you here?

- Research is typically conducted by trained researchers *on* or *for* a group of people (for example, students and teachers).
- We believe research conducted *with* people (for example, students and teacher) better reflects and meets their needs.
- We are asking you to partner with us to conduct this research project.



## What is the AM -ME Research Group?

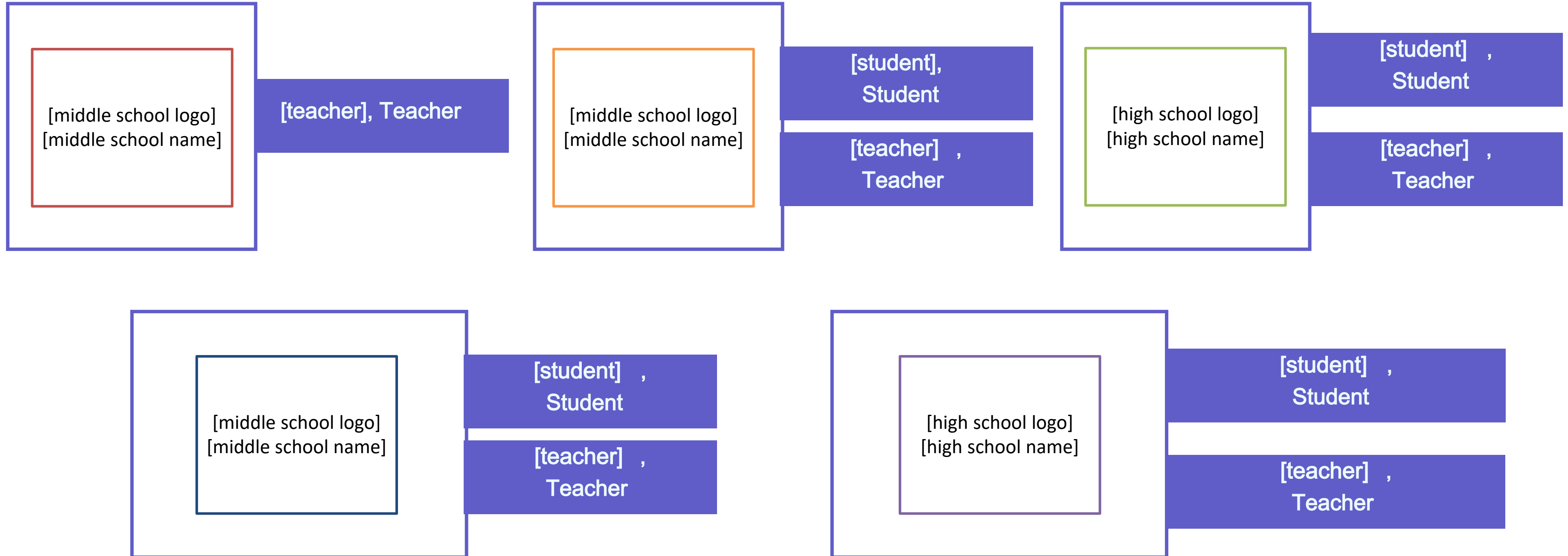
- 7 researchers, 5 practitioners, and 6 students partnering to carry out the AM-ME research project.

Click here for more  
information about this  
research approach!



# AM-ME Research Group

## Members: Students & Teachers



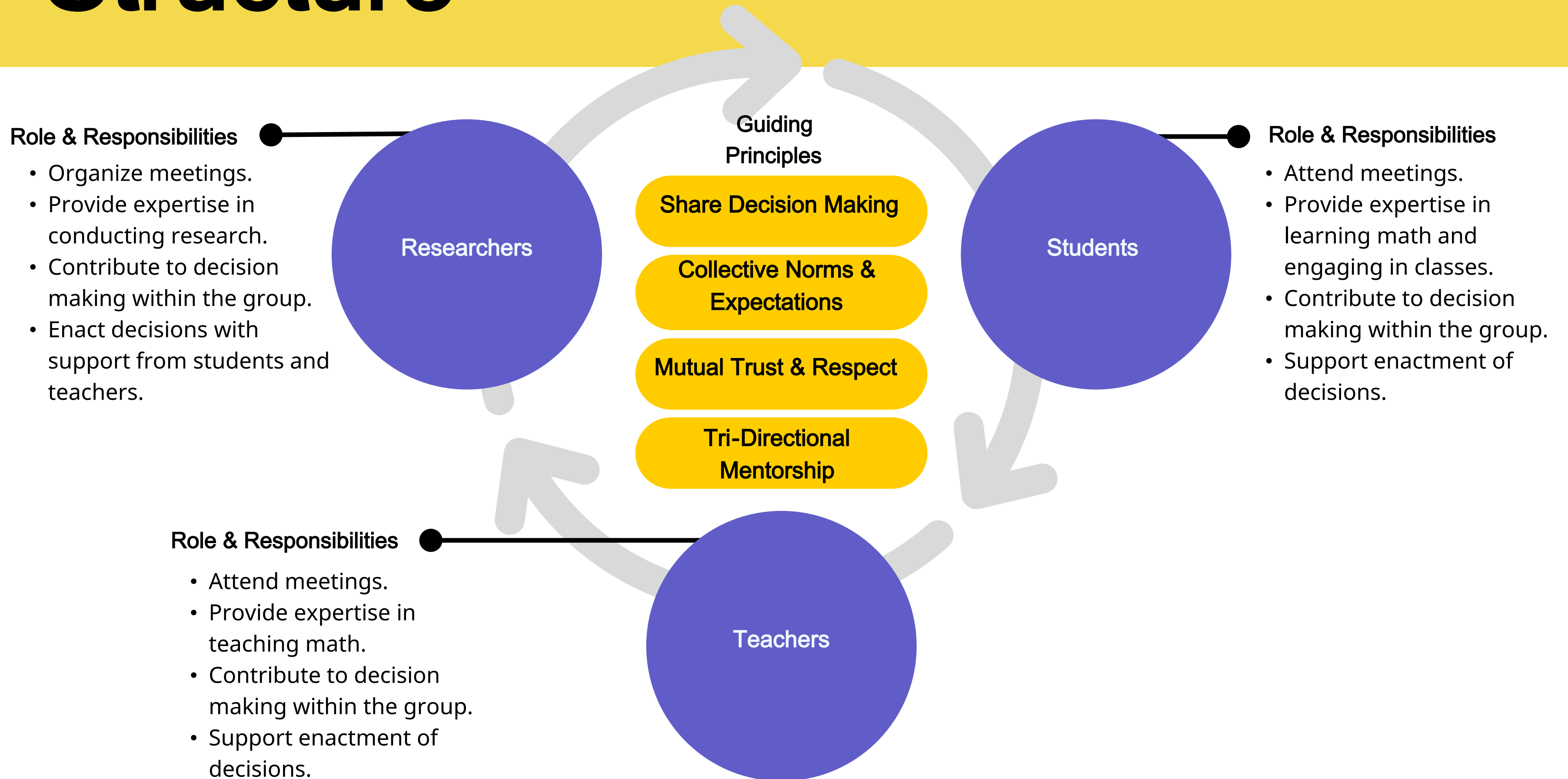
# AM-ME Research Group

## Members: Researchers



- \*Who should you reach out to?**
- **Diane** is your *primary* point of contact for this project.
  - **Samantha** is your *secondary* point of contact for this project.

# Structure



# Expectations

- **The AM -ME Research Group will meet at least twice a year.**
  - Each meeting will last between 1 to 3 hours over 1 to 4 days.
  - Most meetings will take place **in person** (with virtual options to connect) outside of school hours.
    - All meetings will be recorded and uploaded to a shared folder.
    - If you are unable to attend, we will meet with you individually.
- **Between meetings, group members may be asked to support project activities. We expect supporting project activities to take around 40 hours per year.**
- **To thank you for your time and contribution, each AM -ME Research Group member will be paid an honorarium of \$2,000 per semester.**

# Timeline

## Tentative Schedule and Topic(s)

<p>Early Summer 2023</p>	<p><b>Day 1 - [Online] Individual Meetings in June (1 hour):</b> Overview of the project; Review research goals, questions, and activities; Discuss math engagement.</p> <p><b>Day 2 - [In Person &amp; Online] Full Group Meeting on June 28 (2 hours):</b> Establish group norms; React to research goals, questions, and activities; Discuss math engagement.</p>
<p>Late Summer 2023</p>	<p><b>Day 1 - [Online] Small Group Meetings in Mid -July (1 hour):</b> In-depth review of data collected from student survey, student focus groups, and teacher interviews; Discuss emerging themes.</p> <p><b>Day 2 - [In Person &amp; Online] Full Group Meeting on July 24 (3 hours):</b> Engage in discussion and activities to create the Adapted Measure of Math Engagement (AMME) using data collected in Spring 2023.</p> <p><b>Day 3 - [In Person &amp; Online] Full Group Meeting on July 25 (3 hours):</b> Continue to engage in discussion and activities to create the AMME using data collected in Spring 2023.</p> <p><b>Day 4 - [In Person &amp; Online] Full Group Meeting on August 16 (3 hours):</b> Finalize the AMME; Prepare for Fall 2023 data collection for student interviews and teacher content reviews.</p>
<p>Fall 2023</p>	<p><b>Day 1 - [Online] Small Group Meetings in Mid -October (1 hour):</b> In-depth review of data collected from student interviews and teacher content reviews; Discuss emerging themes.</p> <p><b>Day 2 - [In Person &amp; Online] Full Group Meeting in Late October/Early November (3 hours):</b> Engage in discussion and activities to adjust the AMME using data collected in Fall 2023.</p> <p><b>Day 3 - [In Person &amp; Online] Full Group Meeting in Late October/Early November (3 hours):</b> Discuss how findings can support teacher instruction and student engagement in Bloomington; Determine resources to be drafted to share findings with Bloomington schools and the broader community.</p>

# Timeline

## Tentative Schedule and Topic(s)

Spring 2024	<p><b>Day 1 - [In Person &amp; Online] Full Group Meeting in Early January (3 hours):</b> Prepare for Spring 2024 data collection for student survey and student focus groups.</p> <p><b>Day 2 - [Online] Small Group Meetings in April/May (1 hour):</b> In-depth review of data collected from student survey and student focus groups; Discuss emerging themes.</p> <p><b>Day 3 - [In Person &amp; Online] Full Group Meeting in April/May (3 hours):</b> Engage in discussion and activities to adjust the AMME using data collected in Spring 2024.</p> <p><b>Day 4 - [In Person &amp; Online] Full Group Meeting in April/May (3 hours):</b> Continue to engage in discussion and activities to adjust the AMME using data collected in Spring 2024; Finalize the AMME.</p>
Fall 2024	<p><b>Day 1 - [In Person &amp; Online] Full Group Meeting in September (3 hours):</b> Discuss how findings can support teacher instruction and student engagement in Bloomington; Determine resources to be drafted to share findings with Bloomington schools and the broader community.</p>
Spring 2025	<p><b>Day 1 - [Online] Full Group Meeting in Early January (1 hour):</b> Prepare for Spring 2025 data collection for student survey.</p> <p><b>Day 2 - [In Person &amp; Online] Full Group Meeting in April/May (3 hours):</b> In-depth review of data collected from entire study; Discuss how findings can support teacher instruction and student engagement in Bloomington and the broader community.</p> <p><b>Day 3 - [In Person &amp; Online] Full Group Meeting in April/May (3 hours):</b> Determine resources to be drafted to share findings with Bloomington schools and the broader community.</p>

# Let's Chat

- What questions do you have for us at this time?
- Are there important days or dates that you do not want meetings to conflict with?
- Are you more comfortable meeting in person or virtually?
  - If in person, do you have any transportation concerns?
    - Meetings will start at 3:30pm.

# 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.

# 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.

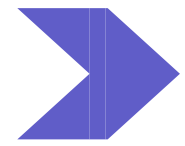
# 1 AM-ME Project Goals



## 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 AM-ME Project Goals



Who is participating in the project?

- Middle and high schools in Bloomington Public Schools (ISD 271).
- *Middle Schools* [middle school], [middle school], and [middle school]
- *High Schools* [high school] and [high school]

# 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?

# ③ & ④ Activities & Analysis

## Qualitative Activities & Analysis

- **Qualitative data** are words, themes, and meanings .
  - *Example* describing students' relationships with teacher.
- Help us understand how an individual or a group may perceive or give meaning to the world around them.
- Intended to gather in-depth insights about a context (for example, suburban schools), topic (for example, math engagement), or both.
- Qualitative data are often collected through **interviews** and **focus groups** .

# ③ & ④ Activities & Analysis

## Quantitative Activities & Analysis

- Quantitative data are **numbers** .
  - *Examples* Grades in math.
- Intended to help understand the **magnitude** (for example, size of something) and breadth (for example, how often something is happening) of a topic.
- Help us “quantify” a topic of interest and results.
- Quantitative data are often collected through **surveys** .

# 3 & 4 Activities & Analysis

## Qualitative Data Collection

## Quantitative Data Collection

Interviews	Focus Groups	Surveys
<ul style="list-style-type: none"><li>• 1:1 conversation</li><li>• In-depth responses</li><li>• Many questions</li><li>• Private – easier to ask about sensitive or controversial topics</li><li>• Data analysis is more time consuming</li></ul>	<ul style="list-style-type: none"><li>• Ideally 4 to 8 participants</li><li>• Responses not necessarily in-depth</li><li>• Fewer questions</li><li>• Not private – can build community around shared experiences</li><li>• Data analysis is more time consuming</li></ul>	<ul style="list-style-type: none"><li>• No limit on number of participants</li><li>• Questions generally less in-depth</li><li>• Many questions</li><li>• Private</li><li>• Takes less time to analyze data</li></ul>

# ③ & ④ AM-ME Project Activities & Analysis

	Year 1 (School Year 2022-2023)	Year 2 (School Year 2023-2024)	Year 3 (School Year 2024-2025)
Fall	N/A	<ul style="list-style-type: none"> <li>• <b>Qualitative:</b> Prepare for and conduct interviews with students and content reviews with teachers; Analyze data collected.</li> </ul>	N/A
Spring	<ul style="list-style-type: none"> <li>• <b>Quantitative:</b> Administer survey to students.</li> <li>• <b>Qualitative:</b> Conduct focus groups with students and interviews with teachers.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Quantitative:</b> Administer survey to students; Analyze data and update survey.</li> <li>• <b>Qualitative:</b> Prepare for and conduct focus groups with students; Analyze data collected.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Quantitative:</b> Administer survey to students; Analyze data collected.</li> </ul>
Summer	<ul style="list-style-type: none"> <li>• <b>Quantitative:</b> Analyze data and create new survey.</li> <li>• <b>Qualitative:</b> Analyze data.</li> </ul>	N/A	N/A

# 5 AM-ME Project Dissemination

- **Informal Meetings:** Each year, we will meet with principals, teachers, and students to provide updates on the project and share initial findings.
- **Data Workshops:** Each year, we will meet with participating schools to share data and findings.
- **Infographics and Research Briefs:** Each year, we plan to summarize data and findings in infographics and research briefs.
- **Measurement toolkit:** At the end of the project, we plan to create an online measurement toolkit that supports teachers and students in understanding how to use the created survey to support Black and Latina/o math student engagement.

# Math Engagement

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## Activity

Discuss how you understand math engagement.

# Background Questions

We would love to know a little bit more about you.

- What are your pronouns?
- How do you identify in terms of gender?
- How do you identify in terms of race/ethnicity?
- *For students* What grade are you in?
- *For teachers* How long have you been teaching? What grades and/or classes do you teach?
- Do you like math? Why?

# Math Engagement Questions: Students

- If I say, “math people,” can you describe who comes to mind?
- **Tell me about your math classrooms.** What are teachers like? Do you feel challenged? Do you participate in math class? Do you feel supported?
- **Tell me about a time you were engaged in math.** What did it look like when you were engaged? What did it feel like? Who helped you engage in math?
- **What are barriers to your engagement in math?** What makes you not engaged in math? What do you feel when you are not engaged in math?
- **Please complete the sentence.** In an ideal world, you would be most engaged in math if...

# Math Engagement Questions: Teachers

- If I say, “math people,” can you describe who comes to mind?
- What does it mean for students to be engaged in classroom learning? What does it look like for students to be engaged? What does it look like for students not to be engaged?
- How do you support Black and Latino students’ engagement in math?
- What are barriers to Black and Latino students’ engagement in math?
- Please complete the sentence. In an ideal world, students would be most engaged in math if...



More  
Information



# Critical Participatory Action Research (cPAR)

- The **AM-ME Project** is a cPAR approach!
- cPAR is an approach where a **research team partners with those affected by research** (e.g., students and teachers) to design and carry out research activities.
- cPAR breaks from traditional forms of academic research in which researchers write “about” or “on” a group of people.
- cPAR encourages us to collectively investigate ways to **better serve the needs of those not benefiting from current practices**, thus disrupting existing practice in productive ways.

# Stay Connected



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