

Updating the AM-ME Survey Using Focus Group Findings!



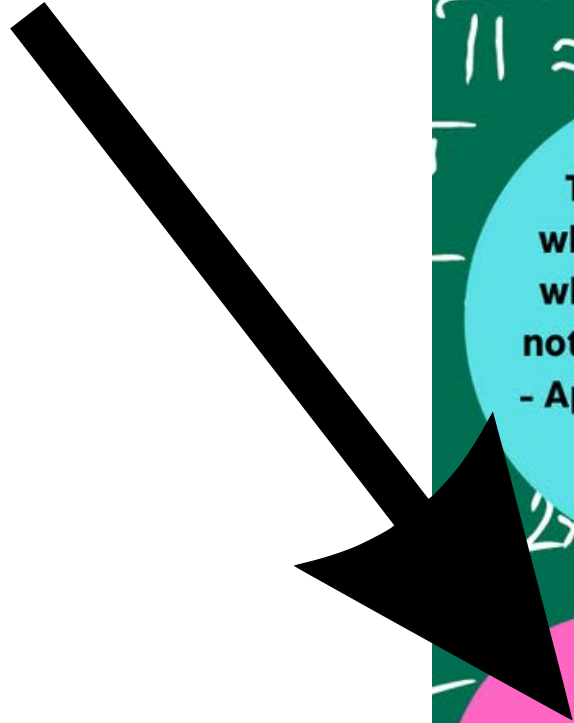
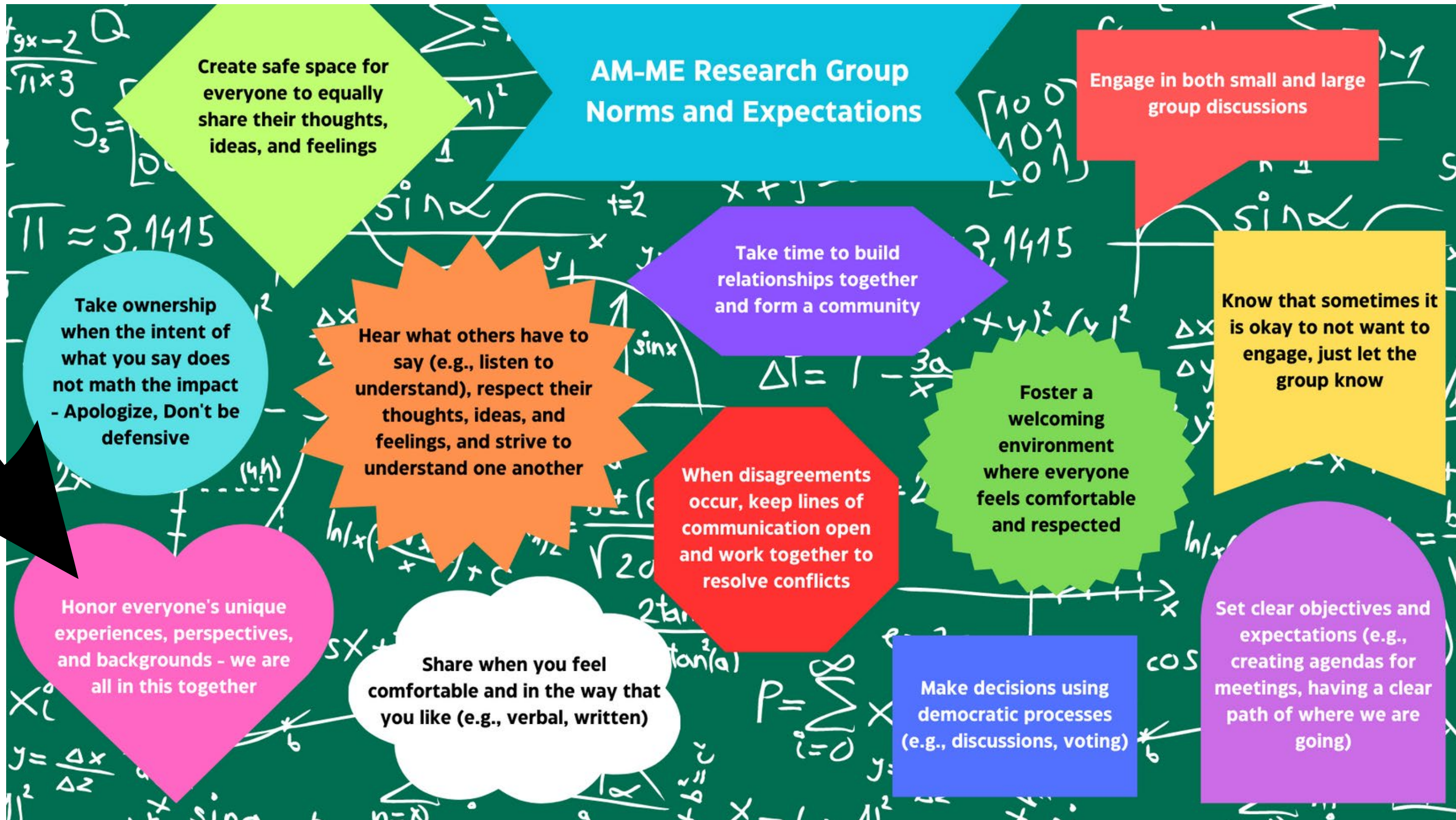
Adapted Measure of Math Engagement Research Group,
May 20



Agenda & objectives

- Team building
- Updating the AM-ME survey based on focus group findings
- Brief discussion about lonely items

Group Norms



Team Building Activity

Snowball Fight

- On a piece of paper, **write a fun fact about yourself** that people in this group might not know.
- **Crumple up** your piece of paper in a “snowball”
- We’ll stand in a circle, close our eyes, and **throw our snowballs**.
- Open your eyes and **pick up the snowball** closest to you.
- We’ll take turns **reading the fun fact** we ended up with and **guessing who it belongs to**.

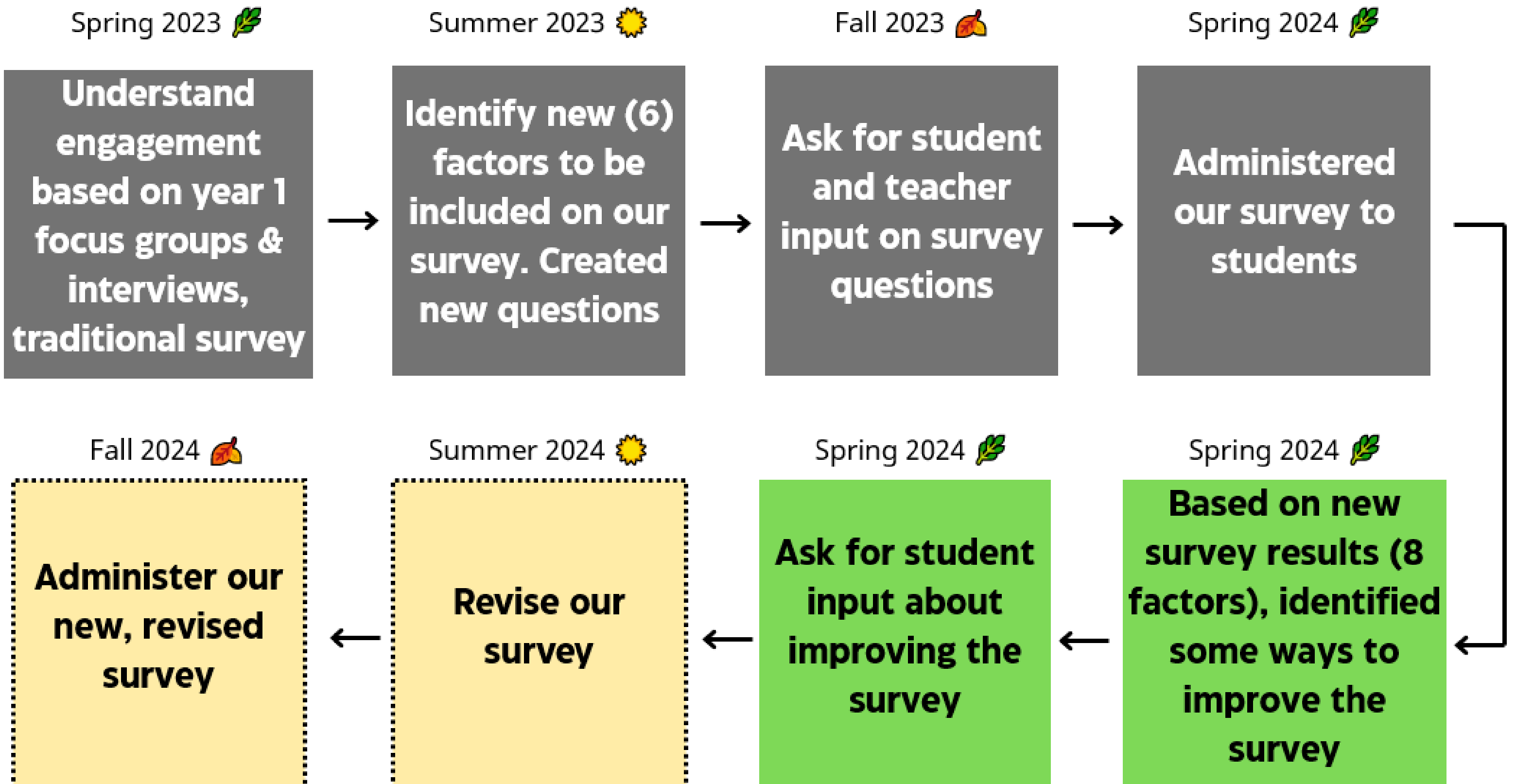




Overview of the Student Focus Groups

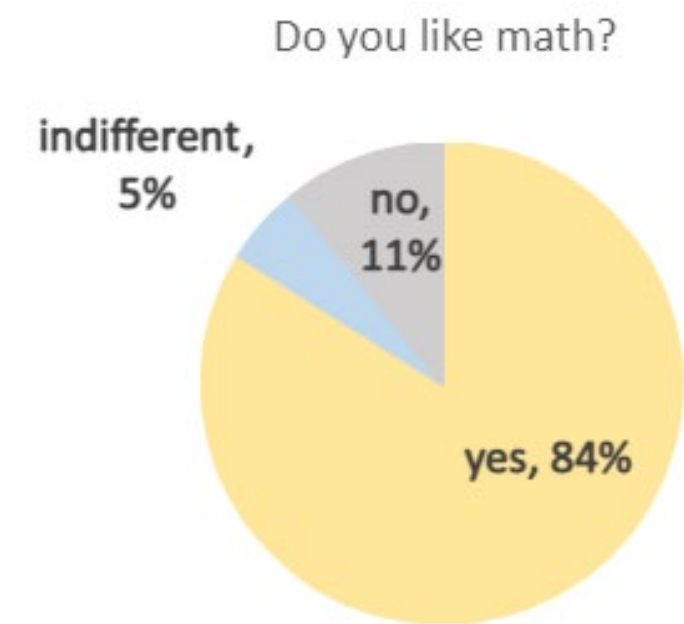
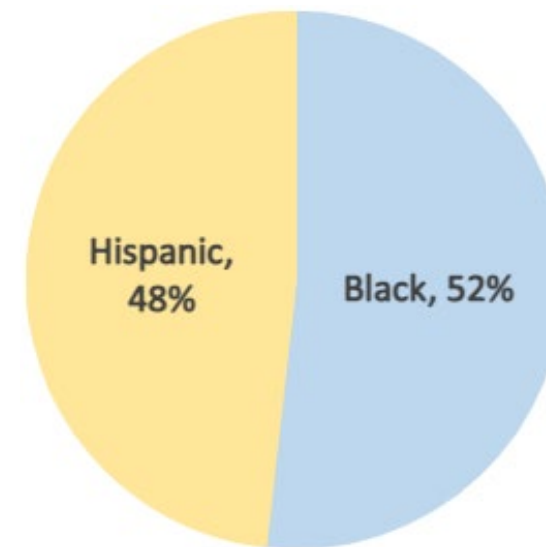
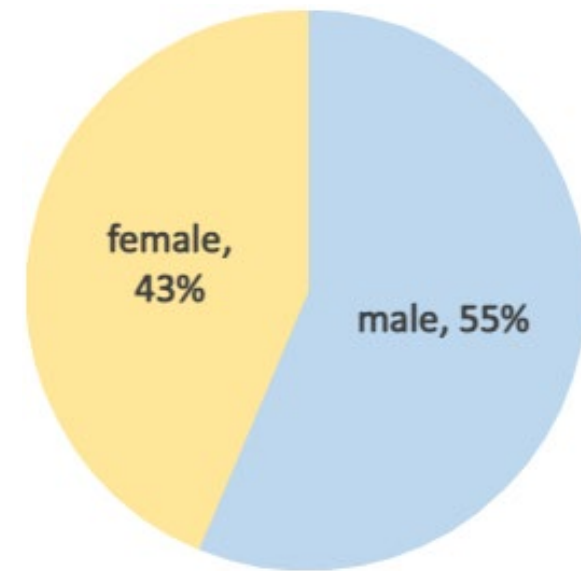
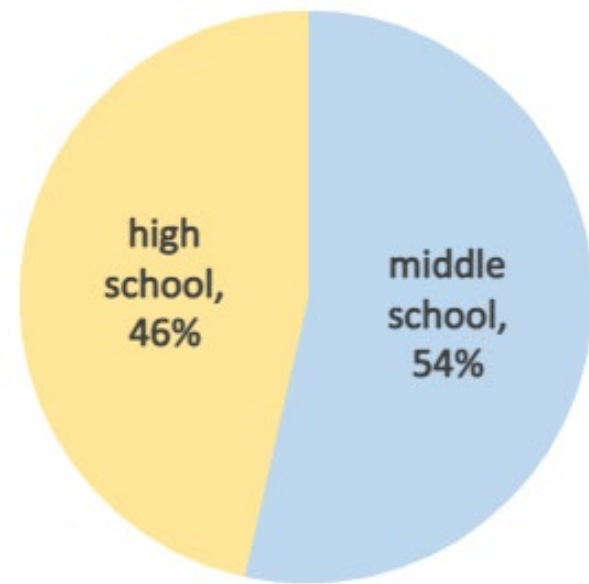


Where are we and why are we here?



Student Focus Groups

We talked to **57 students** from all 5 schools! All went well thanks to your help 🎉



Student Focus Groups and Our Goals

The main goal for the student focus groups this time:

Find out what “high levels of math engagement” look like...because our survey was “too easy to agree to”.

- “What is something that *only* the most engaged students would do?”
- “Describe the students who *do math for fun*.”
- “Think about your *favorite* teacher, how is your relationship with that teacher different from other teachers?”

Some high level findings

Students who are highly engaged in math:

- Can finish work early.
- Can *help others* (and that others actually turn to them for help in math).
- Can do math *with ease* (not stressed).
- Actually find doing math fun.

Some high level findings

Students who are highly engaged in math:

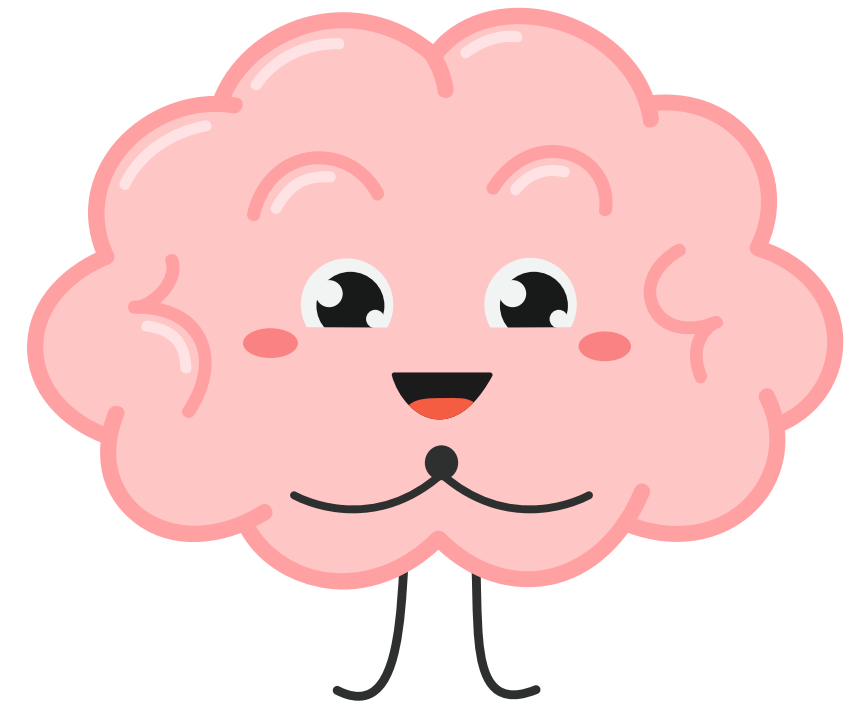
- Can finish work early.
- Can *help others* (and that others actually turn to them for help in math).
- Can do math *with ease* (not stressed).
- Actually find doing math fun.
 - Have a more *personal* relationship with their math teacher (talk about life stuff and things like that).
 - Don't get behind (for example by reviewing old notes).
 - Knows how to be not as distracted.
 - Take extra notes and ask questions when needed.
 - See math being used in places that others might not realize (for example arts, helping families).

Student Focus Groups and Our Goals

A secondary goal of the focus groups is to clarify wordings on the survey that might be confusing:

- “What are your after-school commitments?”
- “Sometimes it can be hard to complete the work that is assigned. If you have ever experienced this, could you please share some of the reasons why you were unable to complete your work?”

**Now, we will review the focus
group findings in more detail in
small groups!**



Get to Know a Factor Activity



First Round of Factor Review!

- For the next 30 minutes, we will:
 - Review one factor.
 - Review and discuss focus group responses about higher levels of student engagement, ideas to more “fully” capture the factor, and possible reasons why students responded to the survey questions differently.
 - Draft new questions and/or rephrase existing questions to improve the factor so that items:
 - Are more difficult for students to agree to (higher levels of “good feelings”).
 - More “fully” capture the factor (i.e., is there anything missing?)
 - Operate similarly across students.
- You will need: Factor Handout



Break!



Second Round of Factor Review!

- For the next 30 minutes, we will:
 - Review another factor.
 - Review and discuss focus group responses about higher levels of student engagement, ideas to more “fully” capture the factor, and possible reasons why students responded to the survey questions differently.
 - Draft new questions and/or rephrase existing questions to improve the factor so that items:
 - Are more difficult for students to agree to (higher levels of “good feelings”).
 - More “fully” capture the factor (i.e., is there anything missing?)
 - Operate similarly across students.
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Lonely Survey Questions Activity



What are the “Lonely” Questions?

- Our survey included **70** survey questions that were designed to capture the “6 buckets” of math engagement.
- **Factor analysis** (which questions are talking about the same things?) suggested that there are **8 factors**.

What are the “Lonely” Questions?

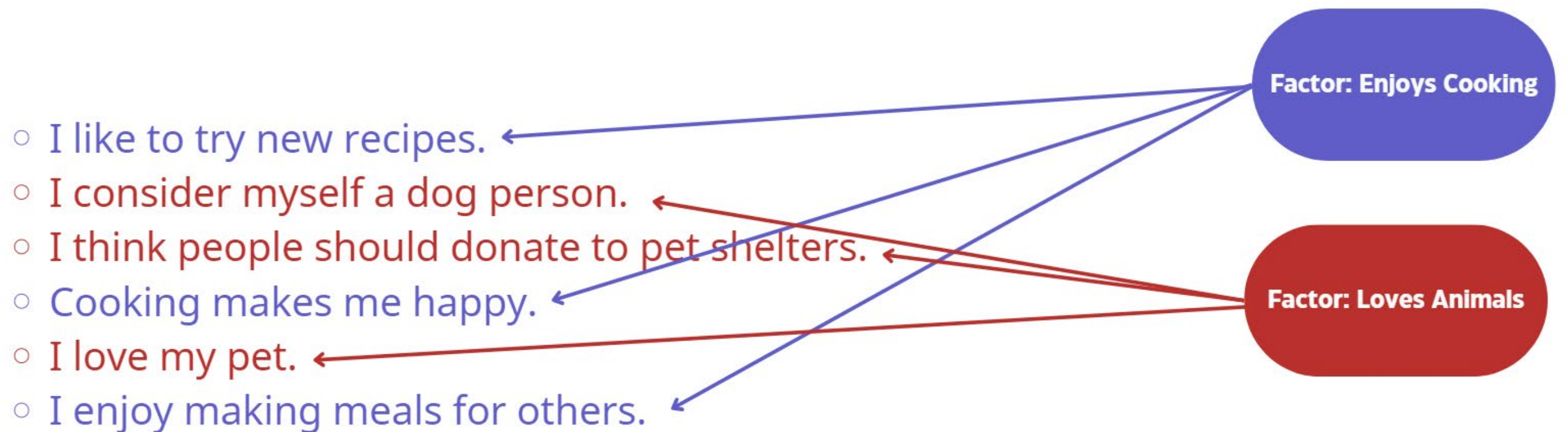
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Reminder
for what a
factor
analysis is!

- I like to try new recipes.
- I consider myself a dog person.
- I think people should donate to pet shelters.
- Cooking makes me happy.
- I love my pet.
- I enjoy making meals for others.

Factor: Enjoys Cooking

Factor: Loves Animals



What are the “Lonely” Questions?

- The 8 factors **covered 60 of our 70 survey questions** 👍
- That means, **10 original survey questions did not load onto a factor.**
We call them the “lonely” questions.
 - *The typical thing to do is to remove these lonely questions, because they are not substantially contributing to our understanding of math engagement.*

What are the “Lonely” Questions?

However, we do not have to *remove* these 10 lonely questions. We want to discuss them together to determine what to do.

In your small group, discuss:

- **Why do you think the questions did not load onto a factor (why is it not good enough to be on the survey)?**
- **If you think a question is actually very important (that it needs to be on the survey), explain why.**



In your small group, discuss:

- **Why do you think the questions did not load onto a factor (why is it not good enough to be on the survey)?**
- **If you think a question is actually very important (that it needs to be on the survey), explain why.**

Group Spongebob:
My math teacher
talks to me about my
future to support my
success.
My math teacher is
strict. (reversed)
I don't care about
learning math.
(reversed)

Group Patrick:
I feel frustrated.
I try my best to get an
A, B, or C.
I ask questions.
I use artificial
intelligence tools (for
example, ChatGPT,
Photomath) to help me
learn math.

Group Squidward:
I have the supplies
that I need to learn in
math class.
I think about how
learning math can help
me get a good job.
People who look like
me can be successful
at math.

Closing



Exit Ticket

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



Next Meeting (*in person!*)

- To be determined closer to August
- We will organize fun activities over the summer!

Stay Connected



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Instagram (DM)



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