



Inviting Student Participation

What is it?

Providing students with the opportunity to share their ideas, solutions, or strategies.

Why do we use it?

Inviting students to participate not only serves to initiate a mathematical discussion, but also to elicit multiple student perspectives, encouraging students to listen, and respond to other's contributions. Who we invite to participate can also serve to diminish hierarchical status among students (i.e., perceptions of differences in smartness and ability to participate).

When Inviting Participation...

Teachers are...

- asking questions that invite sharing from the whole class as well as specific individuals watching and listening for a variety of ideas, solutions, or strategies
- inviting students to add on to other's ideas, solutions, or strategies
- attending to who is being invited to share and how often

Students are...

- thinking about how to explain their ideas, solutions, or strategies
- learning to listen
- seeing their ideas as valued contributions seeing their peers' ideas as valued contributions
- making connections between their ideas and other's

What are you thinking?

Who is ready to share their thinking?

**What do you notice?
What do you wonder?**

Tell us about this (pointing to an idea recorded on the board).

Does anyone else want to add on?



Discourse Move: Inviting Student Participation

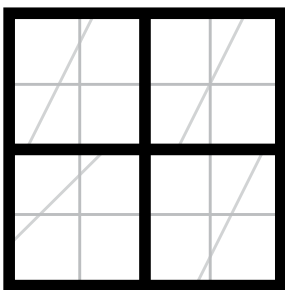


Inviting students to participate communicates that you value your students' ideas.



How do we use it?

If you are new to inviting student participation try this: Ask the class an open-ended question and after students have time to form their ideas, invite any student to share their thinking by asking “**What are you thinking?**” or “**Does anyone have an idea?**” You might ask the whole class, or invite a particular student. Follow up each response with questions like “**Who can add on to this idea?**”. Turn-and-talks throughout the process can also invite more students to share.



Examples of Inviting Student Participation in Action

Scenario: Imagine you have presented the image on the left with the instructions “which one doesn’t belong?” and then provided students with a little time to think about their response independently.

After some time to think, below is an example of inviting participation in action.

Teacher: Which one doesn’t belong? What are you thinking?

Student 1: I think the bottom left doesn’t belong because the other three all are the same steepness. As the x-values increase, the y-values all increase, but they increase slower in the bottom left picture.

Teacher: Thank you for sharing your thinking. **Can someone add on to this?**

Student 2: Doesn’t that mean that the slope of the bottom left graph will be negative?

Teacher: What do the rest of you think? **Does anyone have an idea?**

Student 3: I disagree – I think the slope will still be positive, because the line is still going up. It will be smaller than the other graphs though!

Teacher: Class, take one minute to turn and talk with your partner – what do you think?



Things to Remember

- It can be easy to always invite the same students. Be intentional about the students you invite to contribute.
- If your students are hesitant to participate, explain the purpose of your questions. Think about how you can create a classroom climate where students feel safe to share their ideas. One idea is to ask students privately if they are willing to share their idea during the whole class discussion.
- Support your multilingual learners and exceptional students by inviting students to share verbally, in writing, with visual representation, or other ways in a small group or whole class.



Questions to Consider with Colleagues

- 1 What questions have worked best to Invite Student Participation in your math class? Why do you think they worked?
- 2 How can you create a space where students feel safe to share their ideas and questions?
- 3 How do you see Inviting Student Participation relating to the Standards of Mathematical Practice? Consider SMP 1 and 3 specifically.

Note: This resource is being co-designed by the NC math education community. We welcome feedback to inform its refinement at <https://forms.gle/8PBWGsvqJQzcdtCF8> Check the website (nc2ml.org/high-school-teachers) for the most up to date resources.

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