#### Talk Moves in the Mathematics Classroom

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# Why is talk critical to teaching and learning?

#### Five Major Reasons That Talk Is Critical to Teaching and Learning

- Talk can reveal understanding and misunderstanding.
- Talk supports robust learning by boosting memory.
- Talk supports deeper reasoning.
- Talk supports language development.
- Talk supports development of social skills.

- Using wait time
- Revoicing a student's contribution
- Asking students to <u>restate</u> another student's contribution
- Prompting students for further participation
- Asking students to <u>apply</u> their own reasoning to someone else's reasoning

Chapin, O'Connor, & Anderson (2009)

Example: Using <u>wait time</u>



Example: <u>Revoicing</u> a student

- S: "Adding A and B together gives you a bigger angle."
- T: "So you're saying that by adding the magnitudes of angles A and B, we get a new magnitude that is greater than the measure of angle C? Is that right?"

Example: Asking students to <u>restate</u> one another

– T: "Can you restate what he just said in your own words?"

- T: "John, what did you hear Dave say?"

Example: <u>Prompting</u> for further participation

– T: "Would someone like to add on or share another method?"

 Example: Asking students to <u>apply</u> their reasoning to someone else's

 T: "Do you agree or disagree and why?"
 T: "How is Mary's thinking similar to or different than Juan's?"

#### Talk Moves from our It All Adds Up Discussion

Which moves did you notice?
What was their apparent function?
Did you see a place where a talk move could have been used?

Wait Time

**Revoicing** 

Restating

Prompting

<u>Applying</u>



#### Using <u>wait time</u>

- Allows students time to think
- Minimizes students' tendencies to reason hastily
- Increases opportunities for equitable participation



#### Revoicing a student's contribution

- Amplification
- Elaboration, increase clarity of reasoning
- Bridge to more mathematical language
- Set up alignments and oppositions
- Demonstrate attention and concern for student thinking and voice



Asking a student to <u>restate</u>

 Build a community of active listeners
 Provide another phrasing of reasoning for students to engage with

Formative assessment



Prompting for further participation

- Increase opportunities for participation from a variety of students
- Get multiple solutions/ideas on the table
- Push to deeper levels of mathematical thinking



Asking students to <u>apply</u> their own reasoning to someone else's reasoning

- Encourage students to engage with one another's ideas
- Direct attention to reasoning rather than answers
- Make mathematical connections
- Promote community argumentation and justification



# Thank you

#### CLASSROOM DISCUSSIONS Using math talk to help students learn









#### Anderson