I Asked a Question – Now What?
Welcome!
Learning Outcomes

We will experience strategies to...

• increase productive discourse in classrooms

• encourage students to take ownership of academically productive talk
Math Experience

• What decisions about math tasks can we make that will increase productive discourse?

• What does a task like this look like?
The ratio of boys to girls in a school newspaper club is one to three. There are five boys in the newspaper club. How many girls are there?

What are the different ways you can solve the problem?
Process the Math

• Does the work make sense and what was the group doing?
• As you examined the different strategies, how were they similar?
Process the Experience

What in the Newspaper Club task promoted productive discourse?

Original Problem:
The ratio of boys to girls in a school newspaper club is one to three. There are five boys in the newspaper club. How many girls are there?

What are the different ways you can solve the problem?
What could the question be?

The ratio of boys to girls in a school newspaper club is one to three. There are five boys in the newspaper club.
Features of Open Tasks

• Are open-ended in answer or approach
• Require application of facts and procedures
• Encourage students to make connections and generalizations

Example:
A vase holds red and white roses. For every three roses, there are two white roses. How many flowers might be in the vase?
“Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies.”

*Principles to Actions Ensuring Mathematical Success for All* National Council of Teachers of Mathematics
Strategies for Increasing Productive Discourse

• How can we increase opportunities for talk in the math classroom?

• What does this look like?
Viewing the Video

As you watch the clip, consider:

1 – What actions does the teacher take to get students talking?

2 – Record questions the teacher asks

3 – What do you notice students saying?
Video Discussion

1 – What actions does the teacher take to get students talking?

2 – Record questions the teacher asks

3 – What do you notice students saying?
Strategies for Increasing Productive Discourse

• Talk Moves (repeating, revoicing, turn and talk)
• Talk Formats (partner, small, whole)
• Student work in whole class discussions
• Questioning vs. Telling
Revisiting the Classroom

The Newspaper Club Problem from Talk Moves by Suzanne H. Chapin, and Cathy O'Connor, and Nancy Canavan Anderson. Copyright © Math Solutions Publications. All rights reserved
## Instructional Practices Inventory

### LEARNING ENVIRONMENT

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Students</th>
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<tbody>
<tr>
<td>• Provides a respectful, safe learning environment in which mistakes are seen as an opportunity to learn.</td>
<td>• Take an academic risk and rely on their own thinking and the thinking of other students.</td>
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<tr>
<td>• Structures the class for independent work, pairs, groups and whole class in a thoughtful and deliberate way.</td>
<td>• Listen and ask questions to ask each other to clarify information; respectfully challenge ideas; make conjectures.</td>
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<tr>
<td>• <strong>Ask questions that both build and reveal new understanding of content and practice.</strong></td>
<td></td>
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<tr>
<td>• Avoids yes/no questions unless they also ask for justification</td>
<td>• <strong>Explain their reasoning; construct viable arguments and critique the reasoning of others.</strong></td>
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<tr>
<td>• Makes appropriate tools available and encourages their use.</td>
<td>• <strong>Communicate using appropriate mathematical language both orally and in writing.</strong></td>
</tr>
<tr>
<td>• Work well in a variety of grouping structures.</td>
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</tr>
</tbody>
</table>
Establishing Norms

• What needs to be in place to make productive discourse happen?

• How do we encourage students to take ownership of academically productive talk?
Viewing the Video

As you watch the clip, consider:

In this clip, where do you see student behavior that reflects knowledge of and adherence to norms already in place?

How could you envision those norms being established?
Setting Up Classroom Talk Norms: Mary, may you please repeat that again? from Talk Moves by Suzanne H. Chapin, and Cathy O'Connor, and Nancy Canavan Anderson. Copyright © Math Solutions Publications. All rights reserved
Discuss

In this clip where you see student behavior that reflects knowledge of and adherence to norms already in place?

How could you envision those norms being established?
Two Major Goals of Setting Up Norms

• **Respectful Discourse**: Talk is respectful when each person’s ideas are taken seriously; no one is ridiculed or insulted, and no one is ignored or browbeaten.

• **Equitable Participation**: Participation is equitable when each person has a fair chance to ask questions, make statements, and express his or her ideas. Academically productive talk is not just for the most vocal or the most talented students.
Final Processing

• What stands out to you from this session that you want to take back to your school/district?

• What actions do you need to take to make that happen?
Thank You!

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