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# Developing Equitable Discussion Practices

## What is similar and different about leading discussions across mathematics and English language arts?

National Council of Supervisors of Mathematics 54th Annual Conference

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<https://sites.soe.umich.edu/equitable-discussions-project>



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# Agenda

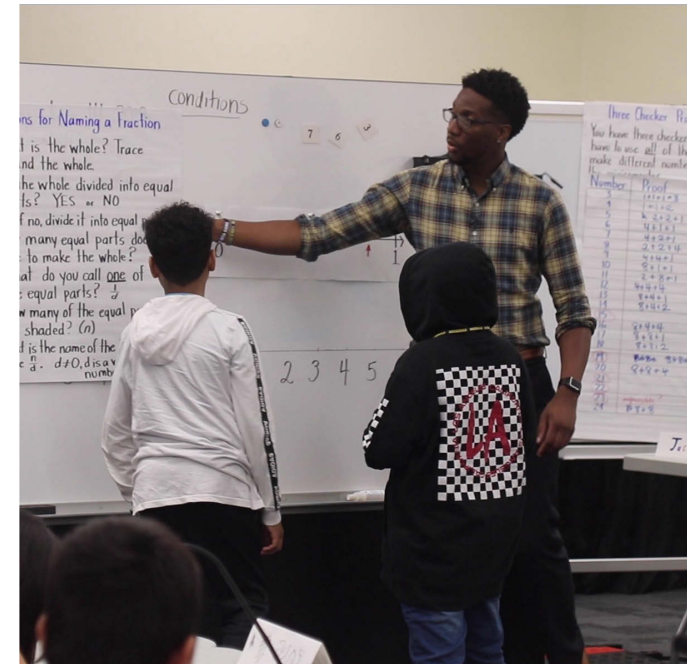
- Challenges in coaching elementary teachers in mathematics
- Examining the work of leading mathematics discussions
- Examining the work of leading literacy discussions
- Developing connections across content areas
- Coaching for connections

## Developing Equitable Discussion Practices



# Elementary Teaching Is Challenging Work

- Teachers are responsible for children's learning in all core subjects
- They must build content knowledge for teaching in multiple subjects
- Curricula and research-based techniques change over time and teachers must keep pace with those changes



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# And Coaching Around the Teaching of Mathematics Is Equally Challenging



- Mathematics often receives less support, with fewer coaches supporting larger groups of teachers
- Literacy is often the primary focus of professional learning and support
- Teachers being coached often see mathematics as “other” – less connected to the rest of their teaching and learning and less accessible to them as teachers

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# So How Are We Trying to Better Support Elementary Teachers?

Designing and studying professional learning and coaching that focuses on:

- Leading productive mathematics discussions
- Developing a repertoire of more equitable teaching moves and considerations for when and why to use them
- Making connections across subject-matter teaching

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# Table Talk

Consider the teachers that you support.

- If you have seen them lead discussions across subjects:
  - What strengths have you noticed across subjects in their discussion-leading practice?
  - What challenges have you seen across content areas?
- If you have only seen their mathematics teaching:
  - What strengths have you noticed in their mathematics discussion-leading practice?
  - What is challenging for the teachers you support?

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# Supporting Discussions In Mathematics



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# Defining Discussions

- Sustained dialogue in the classroom focused on helping students learn from and use one another's ideas to achieve a particular learning goal or set of goals
- In discussion, multiple ideas and viewpoints matter and act as resources for collective meaning-making
- Purpose is not just for students to talk, but to *accomplish* something together

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# What Gets Discussed in Math

## Purposes of mathematics discussions

- Mathematical:
  - Exploring a new idea together
  - Coming to consensus around content
  - Surfacing and exploring questions and misconceptions
  - Reinforcing conceptual understanding of content connected to procedure
- Social-emotional:
  - Development of meta-cognitive skill
  - Development of positive conception of self as mathematical thinker
  - Empowering learners as mathematical knowers and doers

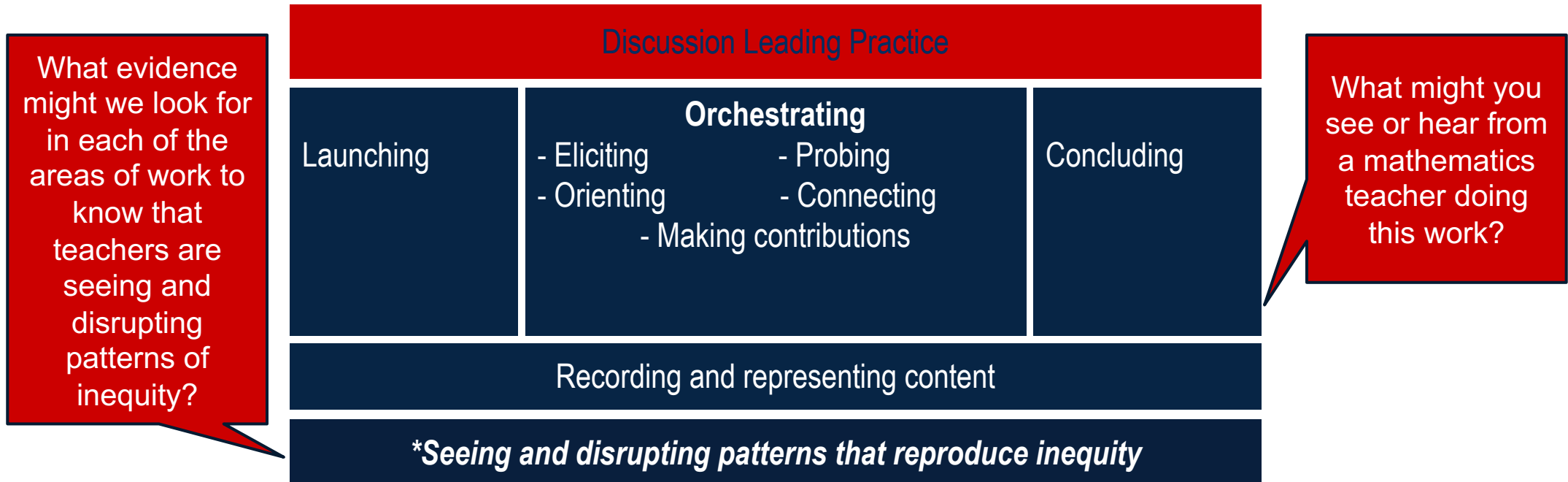
## Types of mathematics discussions

- Problem-based discussion: Collecting and analyzing student solutions to a particular problem
- Guiding toward a particular understanding
- Practicing mathematical work and broadening understanding

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# Examine an Observation Tool Organized Around the Following:



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# Video Framing

## Classroom

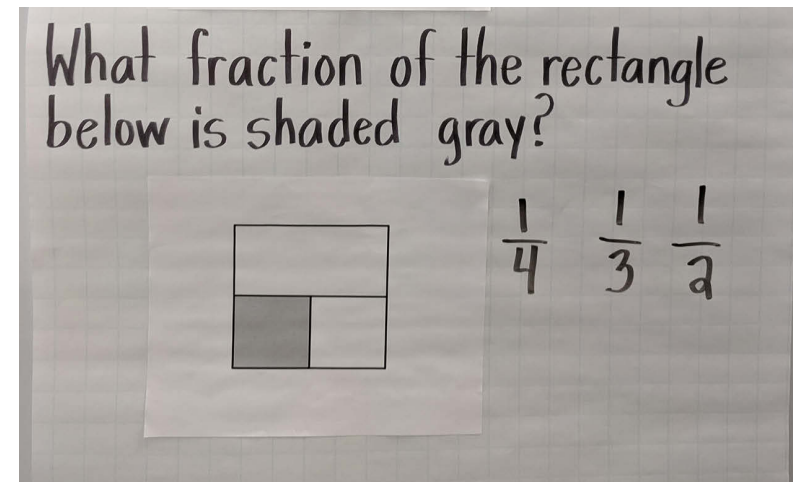
- 26 students from a majority Black district in Michigan

## Content

- Students have launched work to reinforce key understandings around fractional reasoning
- The class is unpacking potential solutions to an unequally partitioned rectangle problem

## Context

- Students are entering grade 5
- This is the second day of math class

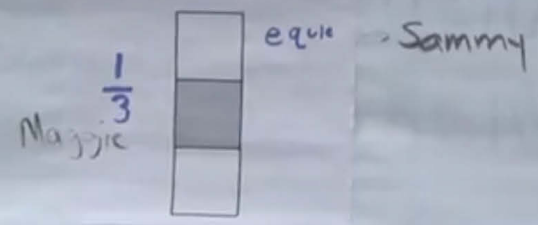


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$$\underbrace{2+2+2+2+2}_{10} = 10$$

What fraction of the rectangle below is shaded gray?



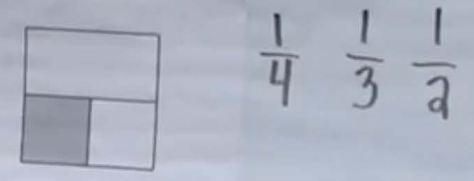
Same value

Write equations for 10.

$5 \times 2 = 10$  equation  
 $10 \times 1 = 10$   
 $6 + 4 = 10$  expression

$$\frac{50}{10} + \frac{5}{10}$$

What fraction of the rectangle below is shaded gray?



# Video Debrief

## Teacher Moves

- Inviting someone to talk about incorrect answer
- Asking Felipe to stand at front of the room
- Asking the class whether they understand Felipe's idea not (not whether they agree with it)
- Prompting students to talk directly to the presenter (e.g., Camryn indicates couldn't hear)
- Asking the class a second time whether they understand Felipe's explanation and could repeat
- Asking Felipe whether Michael accurately captured his thinking
- Having multiple students restate Felipe's thinking
- Revoicing the argument at the very end of the segment, using his hands to clarify the referents

## Things You Might Take Up in a Coaching Conversation

- Stopping from restating Felipe's initial contribution and instead opening it up to questions from the class
- Persistence in pressing the class to ask good questions to understand Felipe's thinking and in pressing Felipe to more clearly articulate his thinking (rather than changing it)
- Moves to ensure that Felipe continues to own his thinking
- Decisions about when to make teacher contributions (e.g., restatement at end)

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# Supporting Discussions In Literacy



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# What Gets Discussed in Literacy

## Purposes of literacy discussions

- Content knowledge:
  - Support students' general literacy development
  - Support students in analyzing literature and other complex texts
  - Practice the skills of engaging in reasoned argument and debate
  - Practice using content-rich vocabulary and disciplinary norms needed to engage in academic debate
- Social-emotional:
  - Support students' understandings of and development around identity and social issues
  - Illuminate students' thinking and sense-making abilities; teach children their ideas should be valued and heard
  - Allow for deeper, co-constructed understandings and laying the groundwork for reasoned compassionate debate (a bedrock for democracy)

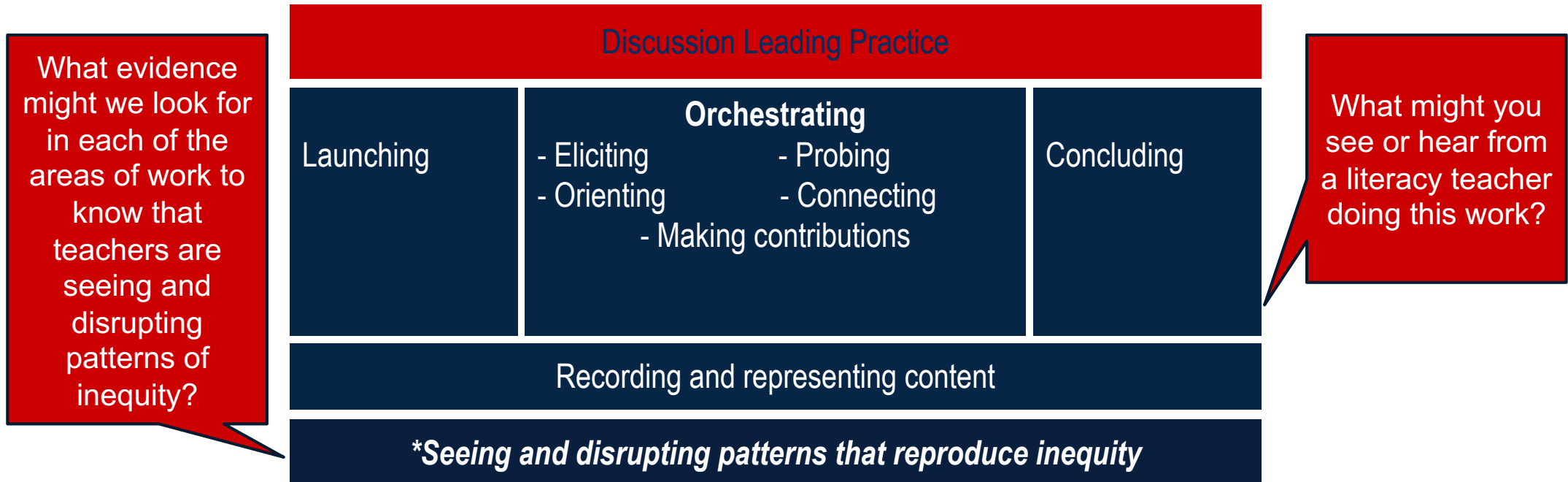
## Types of literacy discussions

- Activating prior knowledge through “pre-reading” discussion
- Unpacking and evaluating a mentor text (i.e., an example of good writing for student writers)
- Debriefing a warm-up (or other) activity
- **Sharing out of small group learning and analysis**
- Engaging in extended seminar-style discussion of a literary work
- Engaging an interactive read-aloud with discussion embedded

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# Examine an Observation Tool Organized Around the Following:



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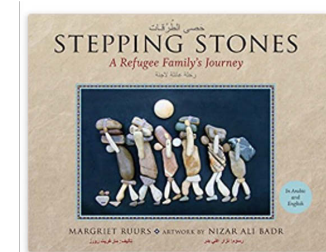
# Video Framing

## Classroom:

Fourth grade, 23- students, urban Michigan classroom

## Text:

*Stepping Stones: A Refugee Family's Story*, by Margriet Ruurs, which is about the Syrian refugee crisis.



**Goal of the discussion:** Find examples of how the author talks about being free in this text. Then, drawing on these examples, consider what it might mean to be “free.”

## Context:

- Interactive read-aloud
- As he reads, the teacher has asked the students to listen for examples of what it means to “free”
- He periodically stops, engages students in discussion about freedom, and records their thinking and examples

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## Leading a discussion

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# Video Debrief: Teacher Moves

- Calls on many students and supports them to call on one another
- Probes students' to provide evidence from the text
- Asks students to add onto one another's ideas
- Pulling together student ideas and encouraging students to make connections across them
- Explicitly names the comprehension strategies students are using
- Records student-generated ideas

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# Supporting Connections Across Content



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# Supporting Connections Across Content

Thinking about the moves that you saw in mathematics and literacy...

- what are some of the similarities that you noticed and how might you support the teachers you coach in noticing those similarities themselves?
  
- what are some of the differences that you noticed and how might you support the teachers you coach in understanding why those differences exist (and their importance)?

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# Connecting Common Challenges Across Content

In both mathematics and ELA, we can support teachers by working on common challenges in leading discussions in all areas, setting one discussion-focused growth goal rather than many:

- Determining WHAT to record and HOW to record
- Supporting students to use evidence for their ideas. In literacy, the evidence is often in the text, while in mathematics, the evidence is in reasoning and proof
- Finding entry points for English learners into the discussion while also ensuring rigor
- Maintaining the “instructional point” inside dynamic, vibrant discussions
- Sharing the intellectual space with students

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# Helping Teachers Make Connections Across Subjects

When engaging in coaching conversations around mathematics, we might prompt teachers to reflect on:

- Thinking about the structure of your mathematics discussion, which literacy discussion structure was it most like?
- If you had been leading an interactive read aloud instead of a mathematics discussion, what are some moves that you would have made to support students' participation? What would these moves look like/sound like in this math discussion?

## ***Discuss with your table:***

*What are other questions we might ask to support teachers in connecting their work to lead mathematics discussions with their work in other areas?*

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Thank you for coming and engaging with us!

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This material is based upon work supported by the National Science Foundation under Grant No. 2000189. Any opinions, findings, conclusions, and/or recommendations expressed are those of the authors and do not necessarily reflect the views of the National Science Foundation.

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