	<p><b>Module 7:</b> <b>Coaching to Facilitate Productive Math Discourse</b></p> <p>Secondary Mathematics Cohort</p> <p>October 2019</p> <p style="text-align: right; font-size: small;">1</p>
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●**Duration:** 1 min.

●**Facilitator says:** Welcome to Module 5. We hope you had a good night's rest and look forward to another great day of learning today.

●**Facilitator does:** Reminder of logistics for training (restrooms, times, breaks, lunch, etc.)

## 20-Second Check In

How are you at this moment?



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- **Duration:** 3 minutes
- **Facilitator says:** Check Ins are valuable protocols for gaining an understanding and/or appreciating the “current state of being” of your colleagues. Examples: Are they ready to focus; are they distracted by challenges at home? While that may not let us alter our plans; at a minimum it helps us understand colleagues and empathy may help them to focus. In a moment I will ask you to do a ten second check in with your learning team.

Let me model. “I am rested, prepared and looking forward to the next day with you.” Now it’s your turn. (Allow participants to engage in their check-ins with their learning team.)

Image credit: [beyondblue.org.au](http://beyondblue.org.au)

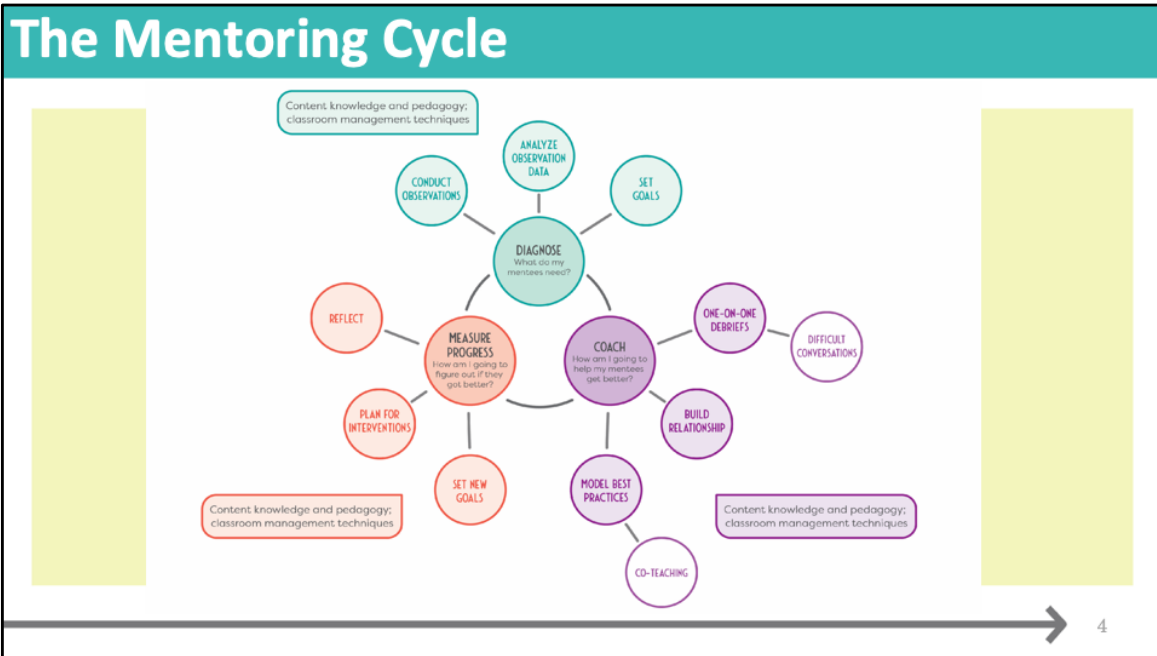
## Mentor Training Course Goals

- Build strong relationships with mentees
- Diagnose and prioritize mentees' strengths and areas for growth
- Design and implement a mentoring support plan
- Assess and deepen mentor content knowledge and content-specific pedagogy

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- **Duration:** 1 minute
- **Facilitator says:** Let's just take a moment to remind ourselves about the overarching goals of the Mentor Training Course. Yesterday in module 4 we focused on the instructional shifts in mathematics instruction which aligned with course goal 4. We discussed partnership agreements as a form of establishing a strong relationship with your mentees which aligns with goal 1. We also engaged in a classroom observation as well as analyzed observation data which aligns with goals 2 and 3.

# The Mentoring Cycle



● **Duration:** 1 minute

● **Facilitator Says:** Remember, this is the mentor cycle that all of our work is grounded in. The mentor cycle illustrates all of the components of your role as a mentor - the concrete actions you will take when working with your mentees. Today, we'll be zooming in on aspects of Diagnose and Coach. By the end of the nine Modules we will have worked through all of the components of the cycle.

## Module 7 Outcomes

### MEASURE PROGRESS

- Engage mentee in reflection on practice.

### COACH

- Facilitate difficult conversations using the “Opportunity Conversation” protocol.
- Learn a model for facilitating productive student discourse in mathematics.

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- **Duration:** 2 minutes
- **Facilitator says:** During this module, we will focus on two mentoring and one content oriented outcomes. We will also review our work in the Diagnose stage that we did together in the last module.
- The state of Louisiana has invested significantly in the development of Tier 1 curriculum to ensure all educators have access to high quality curriculum and instructional materials. This investment resulted from compelling research on the impact on students when teachers work with HQ curriculum. We are committed to teachers and students having these materials – particularly our newest teachers and our teachers serving our most vulnerable students. Today’s curriculum focus in on facilitating product student discourse in mathematics. For students to deeply master math, they must engage in product conversations about math in class.
- This afternoon we will focus on the professional practice of reflection and a process for engaging in challenging conversations. Two important mentoring practices which also contribute to relationship building.
- **Facilitator does:** Reminds participants that the outcomes appear on **PAGE 2.**

## Today's Agenda



- Welcome and outcomes
- Productive mathematical discourse
- Lunch
- Engaging in reflection
- ~~Difficult~~ Opportunity Conversations
- Wrap-up

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- **Duration:** 1 minute
- **Facilitator says:** You will see our agenda on **PAGE 4** of your packet. We will begin with our content focus on productive mathematical discourse, then move into our mentoring focus of setting goals and conducting one-on-one debriefs with your mentees.

## Our Working Agreements



- **M**ake the learning meaningful
- **E**ngage mentally and physically
- **N**otice opportunities to support the learning of others
- **T**ake responsibility for your own learning
- **O**wn the outcomes
- **R**espect the learning environment of self and others



- **Duration:** 6 minutes
- **Facilitator says:** Yesterday your team made a commitment to focus on one agreement. Discuss among yourselves how well you kept that commitment. What went well and where did you struggle? Determine if you want to keep the same team commitment or focus somewhere else today.
- **Facilitator does:** Observes team conversations. Then after four minutes invite a quick report out from 2-3 groups.

## You Said . . .

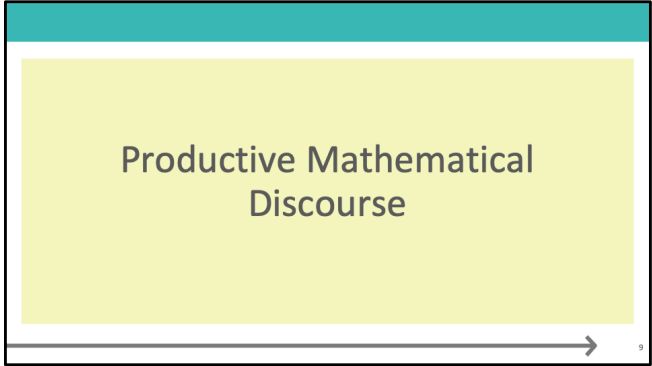


- Before I thought ... and now I think...
- The most useful thing from today for my own teaching is...
- The most important thing from today for me to remember about working with my mentee is...

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- **Duration:** 5 minutes
- **Facilitator says:** We want to share what you wrote on your exit cards yesterday. These are the highlights of what you said rather than every comment. If you have a question that we have not yet answered, please see us at break or lunch to get some of our thinking.
- **Facilitator does:** read a summary of about 5-8 big ideas for each of the items. Answer questions that are appropriate to answer in the large group.





## Productive Mathematical Discourse

**Duration:** 1 minute

**Facilitator says:** We will now dive into our math content for the day: productive mathematical discourse. Remember that your number one job as a mentor is to help your mentees implement their Tier 1 curriculum well. As we discussed yesterday, there is a growing body of evidence to support the theory that providing teachers with a high-quality curriculum that reflects top-notch content and pedagogy is the fastest way to improve instruction. New teachers, perhaps more than anyone else, can benefit from using a strong curriculum. Even the best curricula can be difficult to implement as intended, especially for new teachers.

As a mentor teacher, you play an instrumental role in helping and supporting teachers to implement their curriculum well. In order to do this we need to develop a common language around mathematical practices. Today's focus on mathematical discourse will help us do just that. For students to deeply master math, they must engage in productive conversations about math in class.

As the standards for mathematics have shifted from primarily routine procedures and algorithms to also include building conceptual understanding and applying knowledge, students must be able to reason, justify and model their thinking in mathematics. Achieving this requires that teachers also shift their instruction, so that students are doing more of the cognitive lift.

Productive discourse:

- is an instructional tool that facilitates this by allowing teachers to use students' developing thinking to help other master the content.
- helps teachers collect important information about what students are thinking and learning that can be used to adjust instruction. The reality is that we see a dearth of these types of conversations in classrooms and as a mentor, you can help teachers who are using the EngageNY curriculum and other Tier 1 curriculums understand how to recognize each of these practices in order to best meet the intent of each lesson.

Remember, by first strengthening your content and pedagogical skills, you'll then be better prepared to support your mentees and help them build their content and pedagogical skills.

So let's get started and learn what discourse should look like in a math classroom.



**Critical Point**

- Engaging students in mathematical discourse is critical in order for students to develop a meaningful understanding of mathematics.

**Time Allotted**

- 5 minutes

**Facilitator says:** “What is discourse?”

**Facilitator does:**

- Ask participants to stand up and make eye contact with a new partner in the room. Meet up and share their responses with that person.
- Allow 2 minutes for conversation and then ask for 2 or 3 participants to share few responses with the large group.

**Facilitator does:** Animate the slide and summarize that the goal of discourse.

**Facilitator says:** The goal of discourse is to make student thinking visible so that teachers can use evidence to assess whether students have mastered the skills and knowledge of the standards.

**Words of Wisdom**

- This question serves as a quick way to foster conversations that transition to this section of learning. Use this first slide to get participants up and moving, but do not spend too much time on this or the next slide.

“Discourse is the mathematical communication that occurs in a classroom. Effective discourse happens when students articulate their own ideas and seriously consider their peers’ mathematical perspectives as a way to construct mathematical understandings.”

— National Council of Teachers of Mathematics (2010). Call for manuscripts: Discourse. *Mathematics Teaching in the Middle School*. From <http://www.nctm.org/Publications/mathematics-teaching-in-middle-school/2010/Vol16/Issue2/Call-for-Manuscripts-Discourse-September-2010>

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- **Critical Idea**
- To further explore discourse in the math classroom, it is important participants have a common understanding of what is meant by *discourse*. Use this quote as a way to norm a shared definition of discourse.
- **Step-by-Step Instructions**
- Tell participants to read the quotation on the slide.
- Highlight a few phrases within the quote, such as “students articulate their own ideas” and “consider their peers’ mathematical perspectives” in order “to construct mathematical understandings.”
- Summarize the quote. Say, “It is necessary for us to have an agreed-upon definition of effective discourse. As we continue through this section of the day, we will use this quote as a working definition of effective discourse in the classroom.”
- **Words of Wisdom**
- This quote serves as a relatively quick way to foster conversations that transition to this section of learning. Do not spend too much time on this or the following slide.

## Why Promote Student Discourse?



Deepen student understanding

Encourage students to build on and construct new ideas

Make student thinking visible

Foster practices of mathematicians, scientists, and engineers

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### **Critical Idea**

- Engaging students in mathematical discourse is critical in order for students to develop a meaningful understanding of mathematics.

### **Facilitator says/does:**

The previous slide highlights the ‘what’ in regard to productive discourse (WHAT is discourse?). Now, we will consider some of the research behind the ‘why’ for promoting student discourse in the math classroom.

### **Facilitator says/does:**

#### Animate the slide.

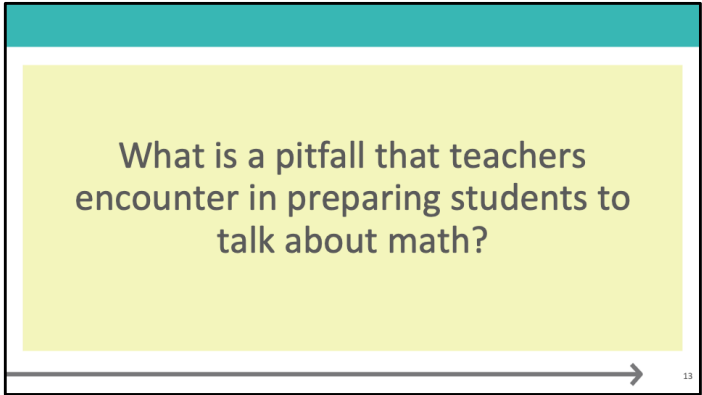
Research indicates that student discourse is used:

- To encourage students to build on and construct new ideas.
- To provide opportunities for displaying student thinking.
- To foster student discourse practices of mathematicians, scientists, and engineers.”

Transition to the next slide by stating, “We know the benefits of productive student discourse, but we also acknowledge that there are challenges to fostering such discourse.

### **Words of Wisdom**

- This slide serves to connect the WHAT and the WHY for the importance of student discourse in the mathematics classroom.



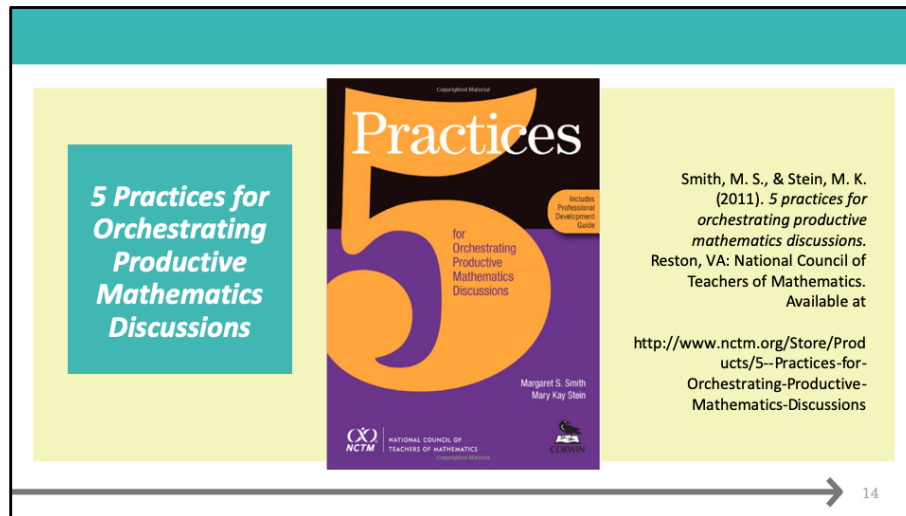
What is a pitfall that teachers encounter in preparing students to talk about math?

**Critical Idea**

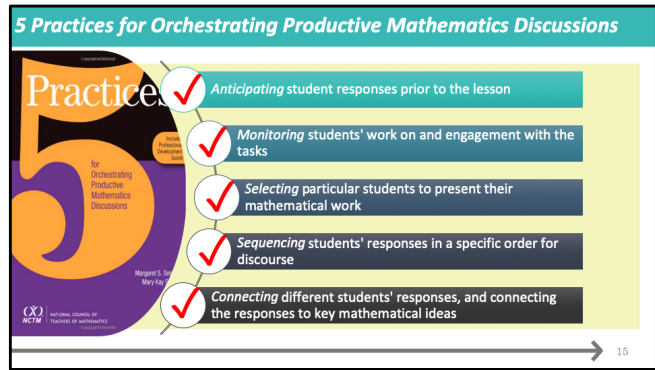
- It is important to acknowledge the challenges what teachers encounter when preparing students to talk about mathematics in the classroom. Build on the experiences shared by teachers in response to this question, and use as a rationale to connect to the model described in the resource *5 Practices for Orchestrating Productive Mathematics Discussions*.

**Facilitator says/does:**

- “What is a pitfall that teachers encounter in preparing students to talk about math?” Let’s pause and take 30 seconds of individual think time before you turn and talk with your table group. Be prepared to share responses with the whole group.
- Some possible responses include:
  - The same students participate in every discussion, while others contribute only when called on, and even then, their contributions are sparse.
  - Some students make comments that relate to procedure but never get to the deeper-level mathematical concepts.
- Add the following challenges to the discussion, if they do not surface from participants:
  - Educators must be willing to be a facilitator of learning rather than in control of every aspect of learning.
  - Educators must have a deep, flexible, and interconnected knowledge of content and pedagogy to facilitate rich mathematical discourse.
  - Teachers can try to ensure that ALL students, including those with special needs, take part in mathematical discourse.
  - In addition, when facilitating discourse, teachers have to figure out how to encourage, extend, and honor student thinking, while also ensuring that the mathematical ideas at the heart of the lesson or task remain the focus of class discussions.
- Transition to the next slide by stating that we will explore a resource to help us address some of the challenges of facilitating productive student discussion.



- **Duration:** 1 minute
- **Facilitator says:** To promote productive student discourse in the mathematics classroom, we will examine a 5-practices model as originated by Margaret Smith and Mary Kay Stein. Smith and Stein’s research laid out the framework as a process for using student thinking and student work as the launch pad for rich discussions that get at the heart of important learning. The first iteration of this model was done with mathematics; later, the model was expanded to also address science discourse. We will use this resource as the foundation of our learning today. We’ll be doing an overview of the model for facilitating mathematics discourse described in the National Council of Teachers of Mathematics book *5 Practices for Orchestrating Productive Mathematics Discussions*.
- **Words of Wisdom:** The “5-practices model” is very rich; participants can become overwhelmed, so strive to keep the overview of the 5 practices brief.
- **Citation:** Smith, M. S., & Stein, M. K. (2011). *5 Practices for Orchestrating Productive Mathematics Discussions*. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5--Practices-for-Orchestrating-Productive-Mathematics-Discussions>

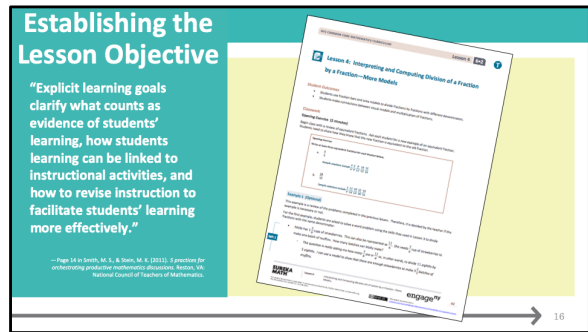


● **Duration:** 3 minutes

- **Facilitator does:** Animate the slide for each step.
- **Facilitator says:** This visual is an overview of the '5 practices model' for orchestrating productive mathematics discussions. It appears on **PAGE 6**. The '5 practices model' is a process of planning and instruction that teachers can implement for promoting productive discussions in classrooms. The EngageNY curriculum resource and other Tier 1 curriculums use these 5 practices in many lessons.
- EngageNY and other Tier 1 curriculums do make use of many of these practices, they don't call any of them out specifically. And so teachers often underestimate their importance, which leads them to deviate from the design of the lesson (skip, alter, etc.), especially when students struggle or teachers feel behind on pacing. By taking the time to understand the model fully, you should be able to better implement the EngageNY curriculum to its fullest intent and better support your mentees understand how to recognize each of these practices in order to best meet the intent of the lesson.
- Remember that this visual is an overview of the '5 practices model' for orchestrating productive mathematics discussions. This process depends on the foundation of establishing a clear learning goal for discussions, which often EngageNY does for you.
- The first practice, **Anticipating student responses** to a challenging task, is part of the planning that occurs BEFORE students engage in the mathematics task.
- The second practice, **Monitoring student work** during engagement with the task, happens while students are working on the task, either individually, in pairs, or in small groups.
- The third practice, **Selecting particular student work** samples (or students, or groups of students, to present their mathematical work), happens after students have completed the task.
- The fourth practice, **Sequencing student work** in a specific order for discussion, also happens after students have completed the task.
- The fifth and final practice, **Connecting student work samples** to each other

and to the key learning goal (connecting different students' responses, and connecting the responses to key mathematical ideas), happens after a sequence is determined.





- **Duration:** 10 minutes
- **Critical Idea:** Establishing a clear standards-aligned learning goal is foundational to using the “5 practices model” for orchestrating productive mathematical discussions.
- **Facilitator says:** Before you use student work in a math discussion, you need to ensure that you are connecting the student responses back to the intended goal of the lesson as much as possible. Establishing a clear understanding of the lesson objective prior to beginning the lesson can ensure that teachers, as well as students, stay focused on what really matters and on what students need to learn during discussions. The lesson objective should drive the lesson and serve as the focus of student discussions. Turn to **Lesson 4: Interpreting and Computing Division of a Fraction by a Fraction – More Models** on **PAGES 7-17**. Look at the Lesson Objective at the top of the first page. The lesson objective lays the framework for the lesson. Let’s look at the Concept Development section of the lesson and see if we can determine how the lesson objective is achieved in the lesson. Note that locating in advance some possible ‘Hot Spots’ in the lesson—things that could hinder you and your students in achieving the lesson objective—will be very useful to you when you facilitate your students’ mathematical discourse.
- **Facilitator does:** Allow 3 to 5 minutes for the participants to look through the Concept Development section of the lesson. Invite a few responses from participants to share the goal/objective of the lesson with the whole group.
- Possible responses:
  - Use visual fraction models to solve word problems involving division of fractions by fractions with different denominators.
  - Create a story context for division of fractions by fractions with different denominators and use a visual fraction model to show the quotient.
  - Use visual fraction models to make connections between multiplication and division of fractions.
- Any similar responses are acceptable. For the sake of clarity, tell participants: “When we modeled this lesson in Session 2, we were using the following learning goals.”
  - Use visual fraction models to make connections between multiplication and division of fractions.
  - Use visual fraction models to solve word problems involving division of fractions by fractions with different denominators.
  - Make conjectures and communicate thinking using appropriate vocabulary.
- Be prepared to probe the participants to be as specific as possible in their learning goals.
  - If it hasn’t surfaced yet, emphasize the third learning goal. This learning goal is

directly related to how students will engage in discourse about the mathematics.

- Ask, “Why is it important for teachers to consider how students will engage in discussions?”
- Possible response: It is important for teachers to consider how students will engage in discussions to ensure the conversation is focused and students learn the math.

## Anticipating Student Responses

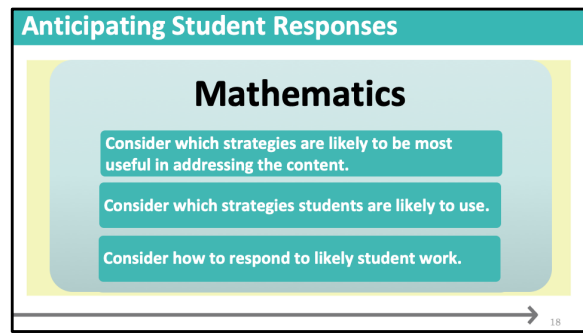
### *Anticipating* student responses prior to the lesson

What does this involve?	How is this supported?
<ul style="list-style-type: none"><li>• The strategies that students might use to approach or solve a challenging mathematical task</li><li>• How to respond to what students produce</li><li>• Which strategies are most useful in addressing the mathematics to be learned</li></ul>	<ul style="list-style-type: none"><li>• Solving the problem in as many ways as possible</li><li>• Solving the problem with other teachers</li><li>• Drawing on relevant research when possible</li><li>• Documenting student responses year to year</li></ul>

— Adapted from Smith, M. S., & Stein, M. K. (2011). *5 practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathematics-Discussions>

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- **Duration: 8 minutes**
- **Critical Idea:** The practice of *anticipating* is critical because it sets the teacher up to understand the math students are working on and the way it can be tackled.
- **Facilitator says:** Take a quick minute or two to review the slide and share your understanding of the process of *Anticipating* with those at your table.
- **Facilitator does:** Give participants a couple of minutes to talk with those in their groups, share the following with them:
- **Facilitator says:** The first practice, Anticipating Student Responses happens before you or your mentee even teach the lesson and facilitate a math discussion, and involves you responding to the problems in the lesson yourself and considering how students may respond so that you are ready to support misunderstandings, push their thinking, and make connections across different responses. After you understand the objective for the lesson you're teaching, but before you have students engage in the lesson and tackle and then discuss problems, it's important that you take the time to anticipate how students may respond to the math task and problems at hand. In this way, you'll be ready to facilitate their understanding of the math.
- Remember, when facilitating math discourse in the classroom, you don't want to just have willy-nilly conversations.



- **Duration:** 5 minutes
- **Critical Idea:** Continue to use the sixth grade EngageNY lesson to give participants a context for each of these 3 considerations for anticipating student responses. The last (third) box here is crucial for effectively anticipating student responses, because the ways in which teachers respond to student efforts, including mistakes, is critical to moving students toward achieving the learning goal.
- **Facilitator does: Animate box 1 only.**
- **Facilitator says:** When anticipating student responses it is important to give consideration to three important aspects of anticipating how students might interact with the task. First, consider which strategies are likely to be **most useful** to students: In mathematics, when teachers consider the most useful strategies that students are likely to use, teachers are able to predict the challenges that students might face and what can be done about these challenges. Understanding which strategies students have had the most success using makes it possible for teachers to make judgments about student progress while students are still working.
- **Facilitator does: Animate box 2 only.**
- **Facilitator says:** Next, teachers will need to consider what strategies students are **likely to use** in approaching an instructional task. Here, the challenge is to think of multiple ways students might approach the task. Thinking of multiple student approaches requires that teachers engage in the task or activity themselves to consider different ways it could be approached or interpreted. Teachers should consider the various representations that students might use in answering questions, as well as the common errors that students might make. Teachers should also consider
  - how students might interpret a problem;
  - the strategies students might use, both correct or incorrect; and
  - how student strategies might relate to the learning goal(s) established.
- **Facilitator does: Animate box 3 only.**
- **Facilitator says:** Lastly, teachers will need to consider how they will **respond to likely student work**—that is, to the strategies that students choose and the answers they generate. By taking into consideration how students might work through a problem, teachers can begin to generate questions or select questions from the lesson that can be used to help students deepen their thinking. This pre-planning reduces the amount of time that teachers will need to spend reacting in the moment. It is a tendency for a teacher who is unprepared for a strategy used by a student to want to jump in and ‘rescue’ the student by redirecting them to a preferred strategy. This response is to be avoided if at all possible. We never want to stifle student thinking. We should instead make an effort to probe the student’s thinking with questions that can help the

teacher—and possibly the student—to make sense of the strategy they chose.

- ***Words of Wisdom: Anticipating*** requires teachers to engage in the task or activity themselves before using it with students—and to consider different ways it could be approached or interpreted.

## Practice: Anticipating Student Responses

### Mathematics

Consider which strategies are likely to be most useful in addressing the content.

Consider which strategies students are likely to use.

Consider how to respond to likely student work.

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- **Duration:** 25 minutes
- **Facilitator says:** So let's try out anticipating student responses. Review the Examples and Exercises in the lesson and have a discussion with your table group. Record your responses these questions on **PAGE 18** Use the information provided in the lesson to think about how you anticipate your students may respond to these questions. Remember to look back through the teacher guidance in the lesson plan and consider:
  - Which strategies the lesson identifies that might be useful - which strategies are used to solve the problems that are given in the lesson? Which ones are most useful in addressing the content and objective of the lesson?
  - Which strategies you anticipate your students may use (even if the strategies are not in the lesson)? It is important to note that the strategies we anticipate students will use may or may not reflect the strategies called out in the EngageNY lesson. This will depend on the level of instruction done around these strategies and the expectations set forth by the teacher on whether or not to use them. We need to be prepared for strategies outside the ones mentioned in the lesson.
  - What misconceptions your students might have.
  - And, finally, how you will respond with probing questions to each of these strategies/misconceptions.
- You will have 20 minutes to discuss these questions. You should be ready to share out some of your conversations when I call you back to the whole group.
- **Facilitator does:** Allow 20 minutes for participants to work through the handout and discuss anticipated responses to the questions. When time is up, ask for several to share their responses with the whole group.

## Anticipating student responses

- Is it necessary to address all misconceptions during the Classwork or Closing?
- How might the coherence of the standards help us anticipate/address misconceptions?

### Example 2 (3 minutes)

- Molly's friend, Xavier, also has  $\frac{11}{9}$  cups of strawberries. He needs  $\frac{3}{4}$  cup strawberries to make a batch of tarts. How many batches can he make?
  - He has purchased  $\frac{11}{9}$  cups, which makes 1 and  $\frac{2}{9}$  batches. (This would be answered last after a brief discussion using the questions that follow.)
- What is this question asking us to do?
  - I am being asked to divide  $\frac{11}{9}$  cups into  $\frac{3}{4}$  cup units.
- How does the problem differ from the first example?
  - The denominators are different.
- What are some possible ways that we could divide these two fractions?
  - I could rename  $\frac{3}{4}$  as  $\frac{6}{8}$ . These fractions are equivalent. I created an equivalent fraction by multiplying  $\frac{3}{4}$  by  $\frac{2}{2}$ .

EUREKA MATH™

Lesson 4: Interpreting and Computing Division of a Fraction by a Fraction—More Models

engage<sup>ny</sup>

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**Duration:** 8-10 minutes

**Critical Idea :** How teachers respond to student efforts, including mistakes, is critical to moving students toward achieving the learning goal.

### Facilitator says:

In your Eureka Math lesson handout, locate the commentary for Examples 2 and 3 (p. 6 and 7), as well as the closing section of the lesson. Read these sections and have a quick discussion about what you notice that relates to our discussion on Anticipating student responses.

Use the next 3-5 minutes to read and discuss as a table group. Be prepared for whole group conversation about what you notice and the student responses you might anticipate.

- Possible responses (if these do not surface on their own, then point them out to the group):
  - *The extra commentary for Examples 2 and 4 provides probing questions for each of the Examples in order to help surface and address student misconceptions.*

**Facilitator says/does:** Animate questions on the slide.

I would like for you to take the next few minutes and consider these questions in regards to student misconceptions. Take a few minutes to discuss them with your group. (Allow no more than 5 minutes for participants to discuss and then have some share out.)

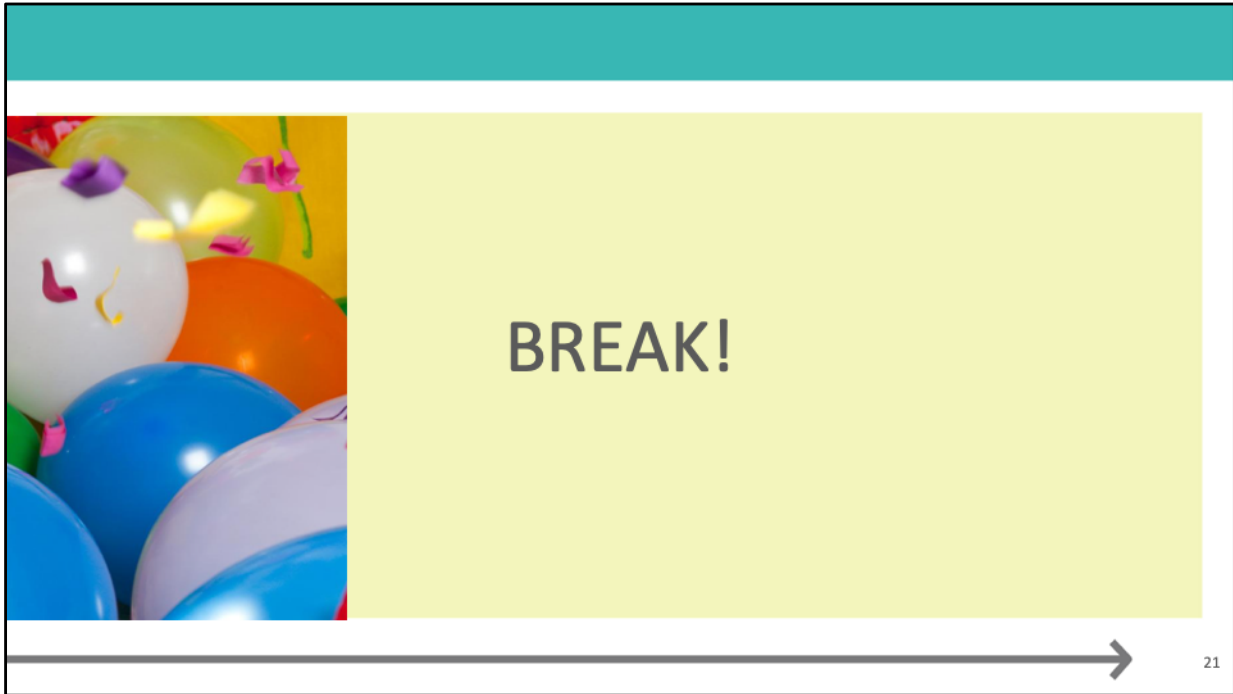
- Possible responses:
  - Is it necessary to address all misconceptions during the student debrief?
    - No, there may be strategies coming up in future lessons that will help students with their misconceptions.
  - How might the coherence of the standards help us anticipate/address misconceptions?
    - We can use the Coherence Map/Remediation Guides to identify prerequisite standards from previous grade levels or within our own grade level that will help us fill in gaps in student learning.

### Facilitator says:

The Eureka Math curriculum resource makes use of many of the 5 practices for productive mathematics discussions even though the practices themselves are not specifically called out. Now that we have explored one of those practices we should be able to make more intentional instructional decisions when we recognize that there is an opportunity for discourse.

- **Words of Wisdom**

- **Anticipating** requires teachers to engage in the task or activity themselves before using it with students—and to consider different ways it could be approached or interpreted.



**Duration:** 10-15 minutes



## Monitoring Students' Work

### **Monitoring** students' work on, and engagement with, the task

What does this involve?	How is this supported?
<ul style="list-style-type: none"><li>• Circulating while students work, watching and listening</li><li>• Recording interpretations, strategies, and points of confusion</li><li>• Asking probing questions to get students back "on track" or to advance their understanding</li></ul>	<ul style="list-style-type: none"><li>• <i>Anticipating</i> student responses beforehand</li><li>• Using a recording tool</li><li>• Observing students' actual responses during independent work</li></ul>

— Adapted from Smith, M. S., & Stein, M. K. (2011). *5 practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathematics-Discussions>

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- **Duration: 5 minutes**
- **Critical Idea:** The practice of *monitoring* is critical because it ensures that the teacher has her finger on the pulse of how the students are approaching the work, which will prepare her to select students' work to discuss.
- **Facilitator says:** Take a quick minute or two to review the slide and share your understanding of the process of **Monitoring** with those at your table.
- **Facilitator does:** Give participants a couple of minutes to talk with those in their groups, share the following with them:
- **Facilitator says:** The second process, *monitoring students' work on, and engagement with, the task* happens during the work time of the math lesson, when students have been released to work independently, in partners, or in small groups, on the math work in the lesson. In EngageNY, this portion of the lesson is called the problem set. Teachers set themselves up for success with monitoring when you anticipate what you'll see ahead of time. When you start doing this, you can begin by looking for 3 or 4 specific strategies. The purpose of monitoring students' work during work time is NOT to help every student "finish" the problem(s) correctly. This is a common misconception, and often teachers believe that they have to do this for a lesson to be successful. The point of monitoring students' work is instead to see how students are approaching the work - including misconceptions to address during future lessons or during other portions of the math lesson, such as during the student debrief.
- Most Tier 1 curriculums, such as EngageNY, provide probing questions teachers can use to craft questions that are appropriate for their students' needs.
- It's important that teachers find a recording tool that works for them. Some

teachers like to use checklists, others take notes on what they see with each student. Find a system that allows you to quickly record what students are doing.

## Selecting Students to Present Work

### **Selecting** particular students, or groups of students, to present their mathematical work

What does this involve?	How is this supported?
<ul style="list-style-type: none"><li>• Choosing students to present because of the mathematics in their responses</li><li>• Making sure that over time all students are seen as authors of mathematical ideas and have the opportunity to demonstrate competence</li><li>• Gaining some control over the content of the discussion</li></ul>	<ul style="list-style-type: none"><li>• <i>Anticipating and monitoring</i></li><li>• Planning in advance which types of responses to select, perhaps considering an incorrect solution to illustrate a typical misconception</li><li>• Being ready to consider unanticipated solutions</li></ul>

— Adapted from Smith, M. S., & Stein, M. K. (2011). *5 practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5-practices-for-orchestrating-productive-mathematics-discussions>

23

- **Duration: 5 minutes**
- **Critical Idea:** The practice of *selecting* is critical because it gives the teacher control over what the whole class will discuss ensuring that the mathematics is at the heart of the lesson.
- **Facilitator says:** Take a quick minute or two to review the slide and share your understanding of the process of **Selecting** with those at your table.
- **Facilitator does:** Give participants a couple of minutes to talk with those in their groups, share the following with them:
- **Facilitator says:** The third process, *selecting particular students, or groups of students, to present their mathematical work*, happens after students have completed the task. *Selecting* is supported by anticipating possible responses, both correct and incorrect, before, and by monitoring students as they work on the task. This process involves reflection on the part of the teacher. When selecting students to present their work, the teacher must think about what was observed during the task, what strategies— both correct and incorrect— that individuals or groups used to complete the task, and what insights students might be able to share. Teachers must also recognize that over time, ALL students, including special needs students, should have opportunities to share their thinking and demonstrate competence so that all students are seen as authors of mathematical ideas.

## Sequencing Work to Support Discourse

### *Sequencing* students' responses in a specific order for discussion

What does this involve?	How is this supported?
<ul style="list-style-type: none"><li>• Purposefully ordering presentations so the mathematics is accessible to all students</li><li>• Building a mathematically coherent storyline from prior knowledge to current grade-level standards.</li></ul>	<ul style="list-style-type: none"><li>• <i>Anticipating, monitoring, and selecting</i></li><li>• During anticipation of work, considering how possible student responses are mathematically related</li></ul>

— Adapted from Smith, M. S., & Stein, M. K. (2011). 5 practices for orchestrating productive mathematics discussions. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5---Practices-for-Orchestrating-Productive-Mathematics-Discussions>

24

- **Duration:** 5 minutes
- **Critical Idea:** The key to *sequencing* is to order student work in a way that makes the mathematics accessible to all students and to build a mathematically coherent storyline.
- **Facilitator says:** Take a quick minute or two to review the slide and share your understanding of the process of *Sequencing* with those at your table.
- **Facilitator does:** Give participants a couple of minutes to talk with those in their groups.
- **Facilitator says:** The fourth process, *sequencing students' responses in a specific order for discussion*, also happens after students have completed the task. Sequencing is supported by anticipating possible responses beforehand, monitoring students as they work on the task, and taking time to reflect on students' work in order to select those who will present their work to the class. This process also involves reflection on the part of the teacher. When selecting students to present their work, the teacher must think about how to order student presentations so that a coherent 'storyline' is created, which will make the mathematics accessible to all students and will build students' understanding of the mathematics.

## Sequencing Work to Support Discourse

### Ways to Sequence

- Begin with the strategy used by the majority of students before moving to those strategies that only a few students used.
- Begin with a strategy that is more concrete, then move to strategies that are more abstract.
- Present strategies that address common misconceptions.
- Have related or contrasting strategies presented one right after the other.

25

**Duration:** 5 minutes

- **Critical Idea:** *Sequencing* students' responses for discussion is a critical step in developing student understanding of the mathematics. There are a number of ways teachers can sequence students' responses.
- **Facilitator says:** There are a number of ways in which we can sequence the presentation of student work.
- **Facilitator does:** Give them a minute or two to read the information on the slide, then provide clarification, if needed.
  - "The way in which responses are sequenced will depend on a number of factors, such as:
    - The learning objective for students,
    - The mathematics involved, and
    - Students' current level of understanding."

**Words of Wisdom:** This slide is important. Clarify that one approach to sequencing solutions is by presenting the most commonly used strategy first. However, it may not always be the best approach to sequencing student responses.

## Practice: Selecting, and Sequencing

With your group, analyze the student work samples for strategies and misconceptions and compare to the strategies you anticipated, then...

- **Select** student work that would best represent the strategies that would help build understanding of the math.
- **Sequence** the selected student work in the order that your group determines would best help the students make sense of the math.
- Create a chart that illustrates your selected strategies in the sequence you would have discussed them with students in your class to help students make sense of the math. Tape the student work to the chart paper in a way that you think supports student learning.

26

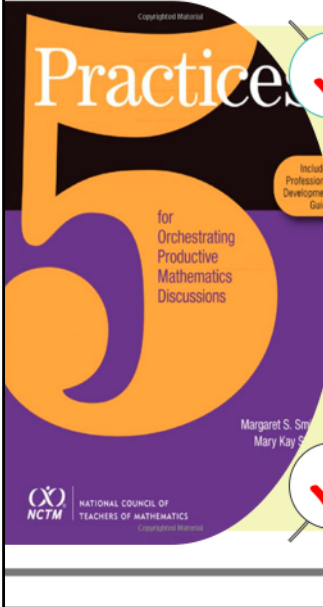
**Duration:** 20 minutes

**Critical Idea:** Participants will apply their knowledge of the “5 practices” to select and sequence student responses to a math task.

- **Facilitator does:** Hand out a set of student work, a sheet of chart paper, a length of tape, and several markers to each group.
- **Facilitator says:** In Module 2 (was Module 4 in Year 2) we reviewed the Flowing Liquids task and video. For this activity we are going to use a set of student work from that class. Each page of student work has a different student’s response to the task. As a group, you are going to analyze the student work and look for strategies, misconceptions, and different levels of understanding. These samples are from students who completed the independent practice. Each sample represents the final work for a student. You are going to take on the role of the teacher and work with your group to analyze the student work for strategies and misconceptions. **Animate the slide.**
- Then, your group will select the student work that you feel would best represent the strategies that would help build understanding of the math. **Animate the slide.**
- You will also **Sequence** the selected student work in the order that your group determines would best help the students make sense of the math. **Animate the slide.**
- You will then work with your group to create a chart that illustrates your selected strategies in the sequence you would have them presented in your class to help students make sense of the math. You will tape the student work cards onto the chart paper in an order that you think would support student understanding.
- Remember, as you look at these samples, it is not about only showcasing the correct answers or successful strategies. Sometimes it is just as meaningful to students’ understanding to look at strategies that didn’t work. There is **not** one correct way to sequence these strategies—just be ready to explain why your group chose to sequence them the way that you did and how that sequencing will help with student understanding.
- You can record your selection and sequencing on **PAGE 19**
- **Facilitator does:** Give groups time to Analyze, **Select** and **Sequence** student work as they plan for mathematical discourse. Have groups hang their charted strategies as they finish. If there is time, have participants share some of their thinking for their charts with the whole group. If running behind on time, groups can also do a gallery walk to see how others decided to select and sequence the student work.

**Words of Wisdom:** Remember that these are the 3rd and 4th steps in the process of facilitating meaningful mathematical discourse. Before completing these steps, you would have anticipated student responses and monitored students as they worked, asking probing questions as you monitored. After you have selected the student work to discuss and determined the sequence to discuss them, you’re ready to facilitate the discourse discussion, during which you’ll connect student responses. We’ll focus on that last practice after the break.

## 5 Practices for Orchestrating Productive Mathematics Discussions



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Practices

for Orchestrating Productive Mathematics Discussions

Margaret S. Smith  
Mary Kay Stein

NCTM NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

Includes Professional Development Guide

- ✓ Anticipating student responses prior to the lesson
- ✓ Monitoring students' work on and engagement with the tasks
- ✓ Selecting particular students to present their mathematical work
- ✓ Sequencing students' responses in a specific order for discourse
- ✓ Connecting different students' responses, and connecting the responses to key mathematical ideas

27

**Duration:** 1 minute

- **Facilitator says:** Before our break, we engaged in the first 4 practices. Now, we are going to look at the last practice, **Connecting student work samples** to each other and to the key learning goal (connecting different students' responses, and connecting the responses to key mathematical ideas). This practice happens during the math discourse (remember, in an EngageNY lesson, that's called the Student Debrief).

## Connecting Responses and Key Idea

**Connecting** different students' responses, and **connecting** the responses to key mathematical ideas

What does this involve?	How is this supported?
<ul style="list-style-type: none"><li>• Encouraging students to make mathematical connections between different student responses through questioning</li><li>• Making the key mathematical ideas that are the focus of the lesson salient</li><li>• Considering extensions as they come from the students or the teacher</li></ul>	<ul style="list-style-type: none"><li>• <i>Anticipating, monitoring, selecting, and sequencing</i></li><li>• Considering how students might be prompted to recognize mathematical relationships between responses</li><li>• Cultivating a classroom culture with explicit supports for student discourse</li></ul>

— Adapted from Smith, M. S., & Stein, M. K. (2011). *5 practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics. Available at <http://www.nctm.org/Store/Products/5--Practices-for-Orchestrating-Productive-Mathematics-Discussions>

28

**Duration:** 5 minutes

**Critical Idea:** *Connecting* students' responses requires the teacher to craft questions or select questions from your Tier 1 curriculum resource that will make the mathematics visible and understandable. Questions must go beyond clarifying and probing, and must focus on mathematical meaning and relationships and make connections between mathematical ideas and representations.

- **Facilitator says:** Take a quick minute or two to review the slide and share your understanding of the process of **Connecting** with those at your table.
- **Facilitator does:** Give participants a couple of minutes to talk with those in their groups.
- **Facilitator says:** The fifth and final process, connecting different students' responses, and connecting the responses to key mathematical ideas, happens after a sequence is determined. Connecting is supported by the other four processes — anticipating, monitoring, selecting, and sequencing — because the way you choose to connect students' ideas to one another and to key mathematical ideas will depend upon the observations and decisions you make when implementing the other four processes. Like other processes in this framework, this process also involves reflection and planning on the part of the teacher. During the connecting process, the teachers must think about how to keep the key mathematical ideas as the focus of the lesson, as well as how to use questions to help students make mathematical connections between the different responses that are presented. Teachers should also consider possible extensions that may surface during the discussion.

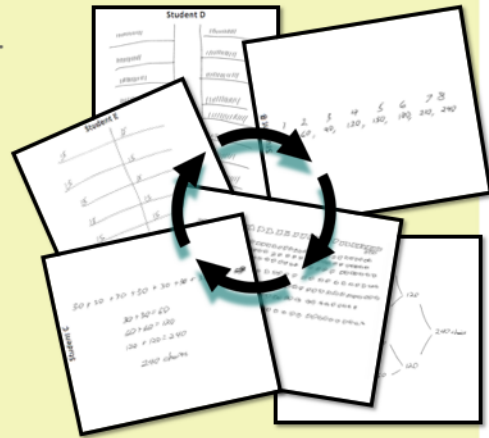


## Practice: Connecting Responses and Key Idea

Write notes to describe how you would make connections between the students' strategies—and how you would connect these strategies to the learning goal.

What questions and/or strategies might you use to make connections between...

- each of the samples of student work, and
- the student work samples and the intended mathematical learning?



→ 29

**Duration:** 20 minutes

**Critical Idea:** *Connecting* students' responses requires the teacher to craft questions or select questions from the Tier 1 curriculum that will make the mathematics visible and understandable. Questions must go beyond clarifying and probing, and must focus on mathematical meaning and relationships and make connections between mathematical ideas and representations.

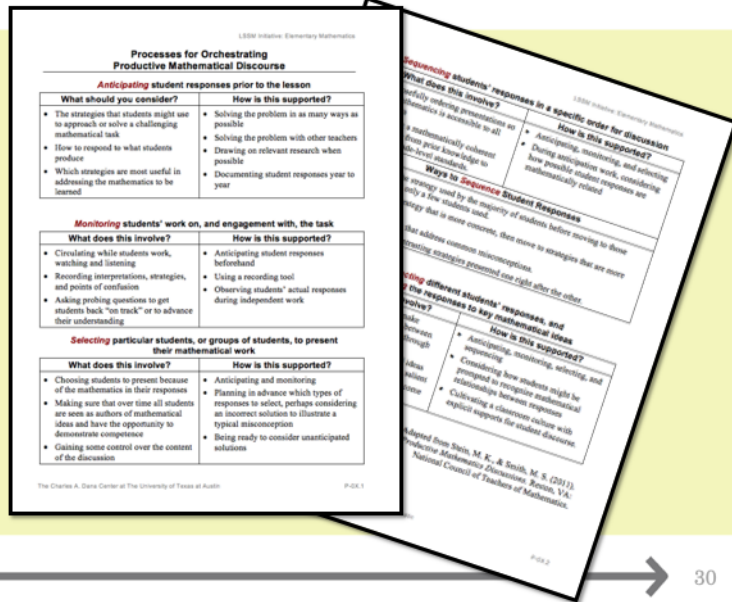
- **Facilitator Says:** In order to practice the connecting process, we are going to use the student work you selected and sequenced before the break and look for possible connections we can make. The connecting process involves making connections between student responses and also connecting those responses to the intended mathematical learning,
- You will go back to your charts from before the break where you've sequenced the student work. Now, you will write to describe how you would make connections between the students' strategies and how you would connect them to the learning goal. You will have about 20 minutes to work on this, please hang your chart back up when your group is finished.
- There is also a place to record the connection in your handout on **PAGE 19**.
- **Facilitator does:** Give the groups 15 minutes to complete their charts. Debrief the activity by either highlighting some unique connections you noticed on the various charts or by asking participants to share out any "ah-has" they may have

had while completing the activity.

**Words of Wisdom:** Walk around while groups are completing their charts and look for groups that may be making some unique connections that others may not have thought of.

# Orchestrating Productive Mathematics Discussions

Read the document on **PAGES 20-21** to review the discourse process.



**Duration:** 10 minutes

- Facilitator says:** Now to finish, I would like to take some time to review the practices. This document highlights all '5 practices for orchestrating productive mathematical discourse'. Take a minute to read through the 5 practices and think about how this process will affect teaching and learning in your classroom and your mentor practices on **PAGES 18-19**. Feel free to make notes.

## Mathematics Teacher Preparation Competencies

Work with a partner:

- Examine the Mathematics Teacher Preparation Competencies (p. 11-12) and note alignment between the competencies and mathematical discourse
- Where in the competencies is facilitating productive math discourse evident?
- Be ready to explain.

31

**Duration:** 15 minutes

- **Facilitator says:** Pull out your Teacher Preparation Competencies document and examine the Mathematics Content Knowledge and Content-specific Pedagogy competencies in mathematics on **PAGES 11-12**.
- Identify specific competency areas where facilitating productive math discourse is evident.
- **Facilitator does:** Give participants time to review the math competencies. Then solicit responses from participants.

## Orchestrating Productive Mathematics Discussions

Take a few minutes to think about and answer the following questions:

- What strategies can you use to ensure that **ALL** students engage in mathematical discourse in your classroom?
- What can you do to leverage incorrect or incomplete reasoning or solutions to strengthen the learning of all students?
- Based on your learning for this section, what action step(s) might you take in order to foster a safe and positive environment for student discourse in your classroom?
- How can you apply your understanding of productive math discourse to facilitate your mentee's growth?

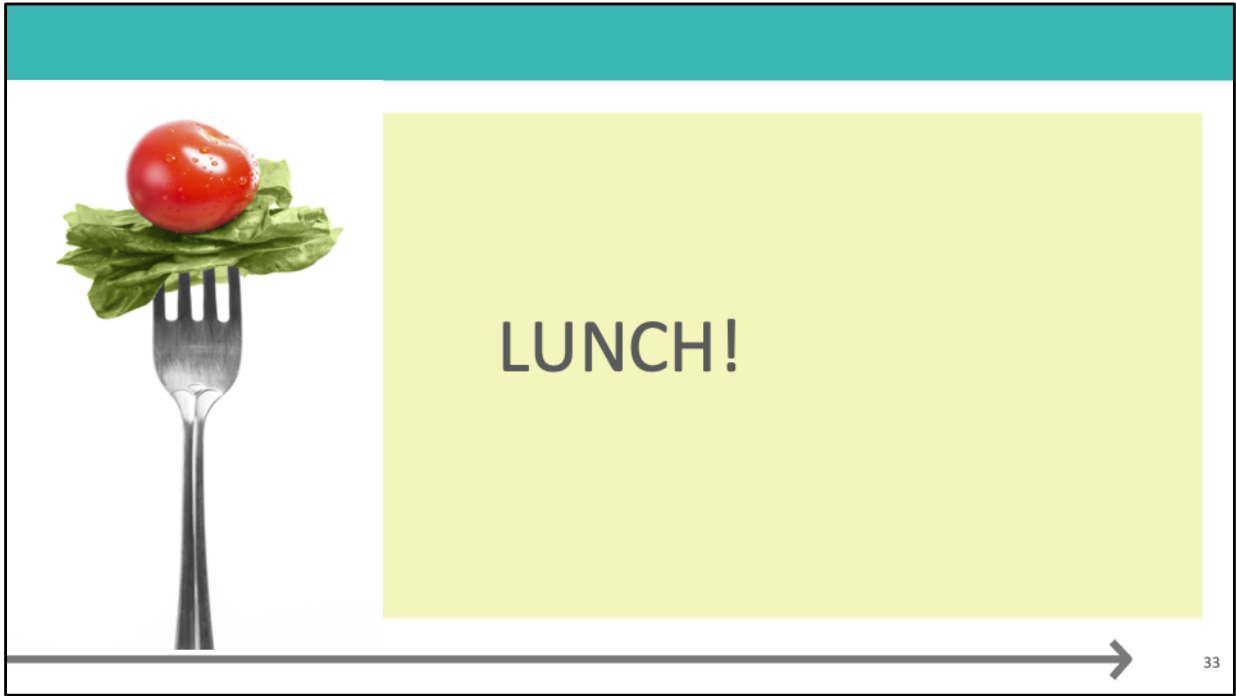
32

**Duration:** 10 minutes

**Critical Idea:** Determining action steps based on learning is a fundamental component to long-term success.

- **Facilitator says:** When you have finished reading, let's take some time to pause and reflect on our experience in planning for mathematical discourse. Take a moment to read the questions on the slide.
- **Facilitator does:** Give them individual time to think about the questions on the slide. Encourage them to jot down their thinking on a sticky note. After a few minutes, ask a few participants to make eye contact with someone they haven't worked with today and move to meet them in the room to share their reflections. Allow a couple minutes for participants to share. Ask a few participants to share what they discussed with the whole group.

**Words of Wisdom:** This is an important conversation about the role of the classroom environment in ensuring all students openly engage in meaningful discourse. Participants need time to think about and discuss questions like these, and they need the support that they can find from one another as they think and talk about ways to support students as they engage in meaningful discourse.



**Duration:** 45 minutes

# The Mentoring Cycle



34

● **Duration:** 30 seconds

● **Facilitator says:** Remember, all of our work is grounded in the mentoring cycle.

## Module 7 Afternoon Outcomes

### MEASURE PROGRESS

- Engage mentee in reflection on practice.

### COACH

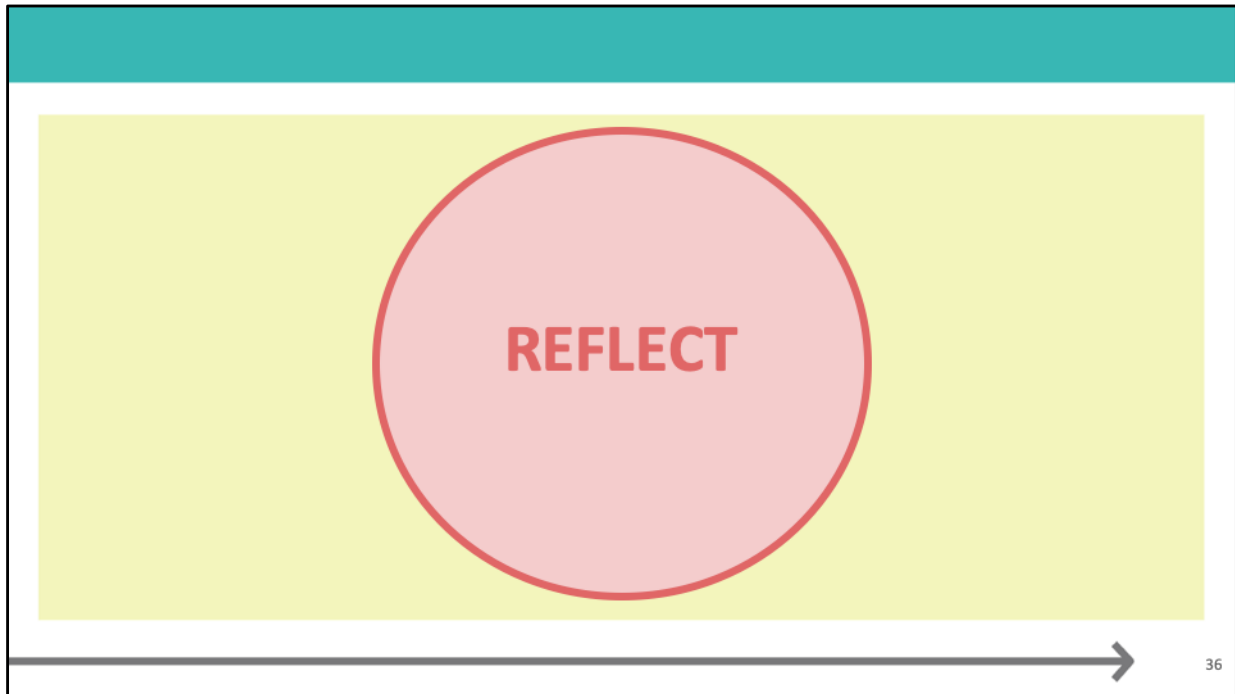
- Facilitate difficult conversations using the “Opportunity Conversation” protocol.

35

● **Duration:** 2 minutes

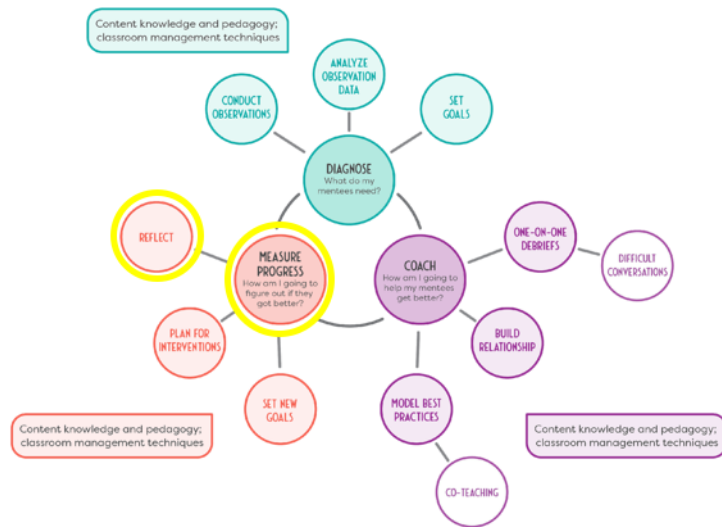
● **Facilitator says:** During this afternoon, we will focus on two mentoring outcomes.  
[read slide]





- **Duration:** 30 seconds
- **Facilitator says:** Yesterday in Module 6, you learned several important parts of Measure Progress - how to analyze your mentee's growth, set new goals, and plan for further interventions. Today, we're going to learn about an important component of the measure progress work - engaging your mentee in reflection on their practice.

# The Mentoring Cycle



37

- **Duration:** 30 seconds
- **Facilitator says:** Reflecting is the final step in the mentor cycle, and an important practice to have your mentee engage in before beginning the cycle again with them.

## Reflect: 3 Key Components

- Facilitate reflective conversation
- Engage in self-reflection
- Celebrate wins and determine areas of growth

38

- **Duration:** 1 minute
- **Facilitator says:** Today, you'll learn how to facilitate a reflective conversation with your mentee and help your mentee engage in self-reflection to help them celebrate their wins and determine their areas of growth. We will revisit Reflect during Module 9, where you will practice your own self-reflection and celebrate your wins and determine your areas of growth as a mentor.

# The Three Levels of Text Protocol

1. Get together in groups of three. (2 minutes)
2. Assign one person to be the timekeeper. (1 minute)
3. Independently read the pieces on reflection and identify several passages that stand out to you because they have implications for your mentor practice. (10 minutes)
4. One person shares the following three levels of thought about the text .(3 minutes)
  - LEVEL 1: Read aloud a passage you have selected.
  - LEVEL 2: Say what you think about the passage (interpretation, connection to past experiences, etc.).
  - LEVEL 3: Say what you see as the implications for your work.
5. The group responds to what has been said. (2 minutes)
6. Repeat steps 4 and 5 for the remaining group members, not duplicating a passage that has already been shared. (10 minutes)
7. Discuss and summarize the implications for your work and be ready to share. (5 minutes)

- **Duration:** 40 minutes
- **Facilitator says:** So let's jump right in! Why is reflection a component of the mentor cycle? Why is it an important practice to engage in? We're going to engage in a reading and discussion of two short pieces to learn why self-reflection is a powerful learning tool - for all people, in all situations, not just for mentors. We've deliberately chosen pieces that are about the power of reflection itself, not only on reflection in teaching or in the classroom. The two pieces have very different approaches to the concept of reflection, to help us build understanding of this practice from two different angles. The first piece tackles reflection from a quantitative research and business perspective. The second piece tackles reflection from a feeling and believing perspective. We're going to use The Three Levels of Text Protocol from the National School Reform Faculty to deepen our understanding of the practice of reflection and explore the implications for our work. The steps in this protocol can be found on page 23 of your packet. They are also on the slide for you to refer to as you proceed through the protocol. Note that you need to stick to the time limits, and be careful of air time during the brief group response segment so that everyone in your group has the opportunity to participate. In addition, the reason you will select several passages but only share one is to ensure that everyone shares a different passage - if someone

who goes before you shares the passage you have chosen, share one of your other selections. You'll share across both texts, but it's fine if all three of you happen to all share passages from one text - that just means that that is the one that spoke to your group the most! (Note: texts are on p. 24-29 of the handout)

- **Facilitator does:** Sit in on text discussions, participating as needed to prompt and guide the discussions and to keep timekeepers moving through the protocol. Listen for particularly compelling implications for mentoring practice and ask those mentors to share out to the whole group at the end of the protocol. Take 5 minutes for whole group sharing. Have participants return to their spots.

## When to Engage Your Mentee in Reflection



- At the end of each mentor cycle, when you're deciding to move on to another goal or do further work on the same goal.
- At the end of the school year when you're wrapping up your formal relationship.

40

- **Duration:** 2 minutes
- **Facilitator Says:** As you just discussed in the protocol, reflection is not a “one and done” practice. It’s a practice you’ll want to engage your mentee in regularly to help them consolidate, understand, and celebrate their learning and to help the two of you determine where to focus learning next
- There are two specific times you’ll want to engage your mentee in reflection. The first is at the end of each mentor cycle, every time you engage in a cycle with them, when you are deciding to move on to a new goal or do further work on the same goal. The second is at the end of the school year when you and your mentee are wrapping up your formal relationship and they are getting ready for another year of teaching without your formal guidance.

# Engage Your Mentee in Reflection

What is a specific skill or area that your mentor has helped you improve in? How do you know that you have improved in this skill or area?
Which supports were most critical in meeting your needs as a new or resident teacher?
What are your goals to continue to improve in this area?

- Read through the mentee self-reflection sheet.
- Independent plan: When and how will you engage your mentee in self-reflection? (5 minutes)

41

- **Duration:** 6 minutes
- **Facilitator Says:** When engaging your mentee in reflection, you'll need to build on the relationship pieces you have already put in place to determine how reflection will work best for your mentee. Turn to page 30 in your packet. This is a sheet that you can use to engage your mentee in self-reflection. It aligns to both the best practices of reflection that we learned about in the articles and aligns to the reflection expectations of the assessments. Think about your relationship with your mentee, the mindset your mentee has displayed so far, and the logistics of your mentoring practice. When and how will you engage your mentee in self-reflection?
- **Facilitator Does:** Ask participants to read through the sheet and take 5 minutes to plan on their own when and how they will engage their mentee in self-reflection.

## Engage Your Mentee in Reflection



- Whip-around: Share one aspect of your plan with your table
- Table discussion: How will engaging in reflection with your mentee help you to be a more effective mentor?

42

- **Duration:** 11 minutes
- **Facilitator Says:** Now, you're going to choose one aspect of your plan to share with your table. Choose one person to start and whip-around your table with each person sharing one aspect of your plan. Then, transition to the table discussion prompt on the slide: how will engaging in reflection with your mentee help you to be a more effective mentor? You'll have 10 minutes to both share and discuss.



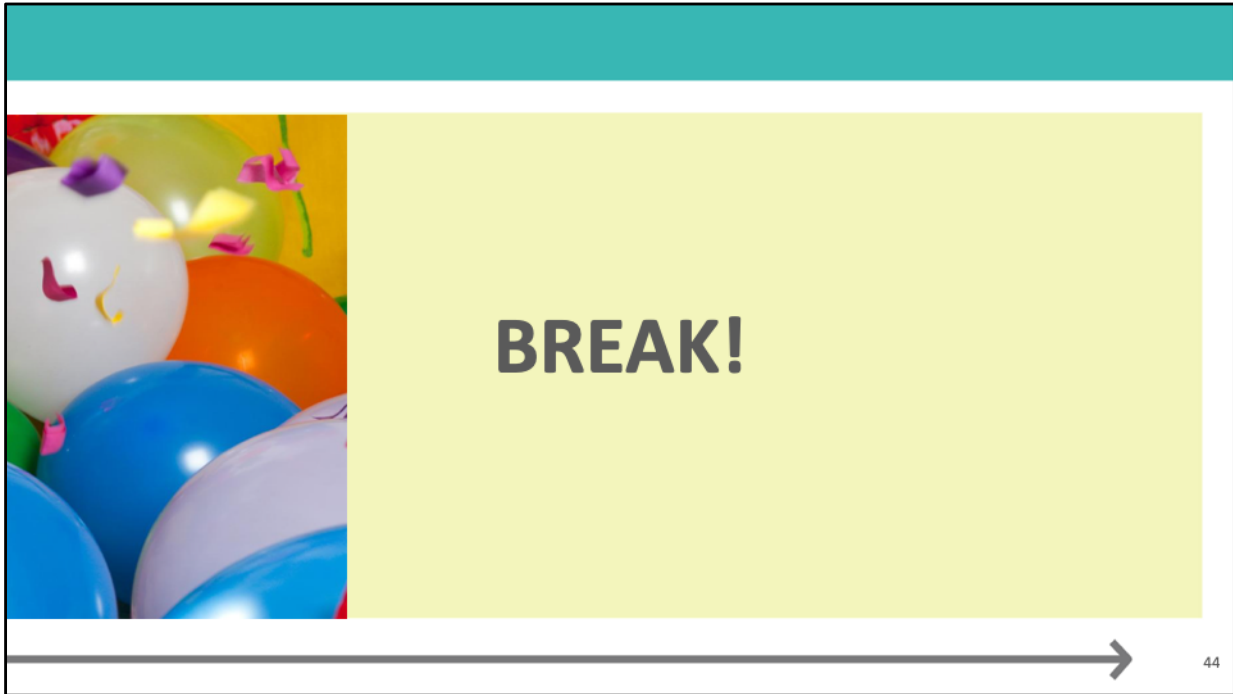
## Key Takeaway

Engaging in self-reflection is an effective strategy for consolidating, understanding, and celebrating learning and for determining where to focus learning next



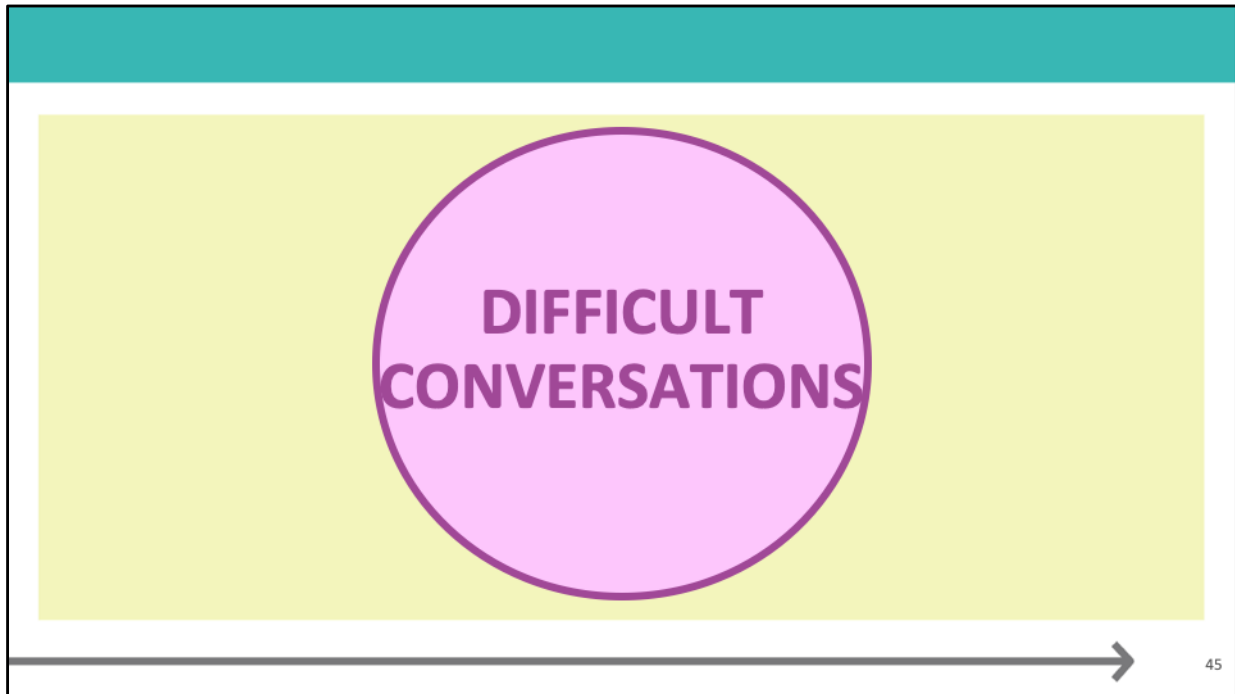
43

- **Duration:** 1 minute
- **Facilitator says:** Remember, the reason we engage in reflection is [read slide].



**SECTION START: 1:45**

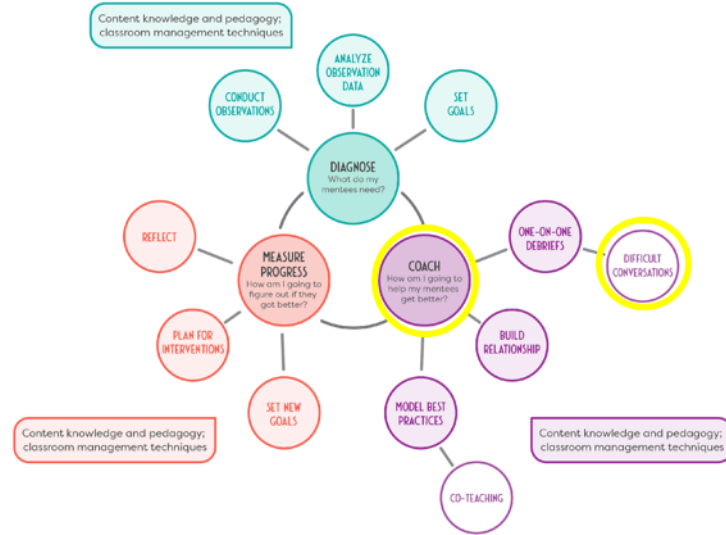
●**Duration:**15 minutes



**SECTION START: 2:00**

- **Duration:** 1 minute
- **Facilitator says:** Welcome back from the break. We're now going to return to a topic that first came up when we discussed debriefing - difficult conversations. This was an area that folks brought up as an area of concern. When we were discussing your concerns about leading one-on-one debriefs, several people shared in their partnerships that they were worried that they'd have debrief conversations that are difficult. That's a very real concern -- discussing growing and changing can be difficult. We promised we would be returning to this topic once the school year was underway and you had some conversations with your mentees under your belts. So let's dive into that now. We'll be practicing a protocol you can use with your mentee when you find yourself having a difficult conversation.

# The Mentoring Cycle



46

- **Duration:** 1 minute
- **Facilitator says:** Difficult conversations are a part of the coaching section of the mentor cycle. They may come for you or may have come up when debriefing with your mentee. Note that they may come up at other times as well, and so what we're practicing today should feel widely applicable to your work as a mentor - and potentially outside of your work as a mentor as well!

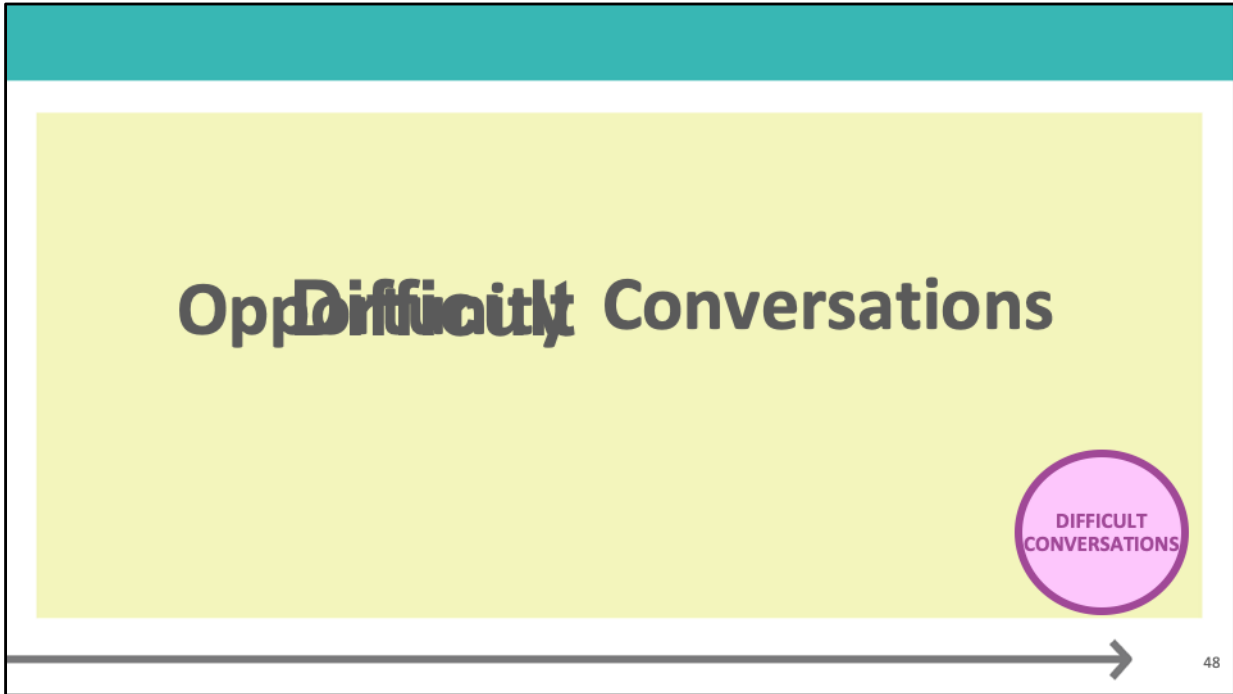
## Difficult Conversations: 3 Key Components

- See difficult conversations as important opportunities
- Use the “Opportunity Conversation” protocol to structure difficult conversations
- Plan for engaging in Opportunity Conversations with your mentee



47

- **Duration:** 1 minute
- **Facilitator says:** There are 3 key components we'll be focusing on with difficult conversations
- **Facilitator does:** Read slide



**Duration:** 1 minute

**Facilitator says:** So when we say “difficult conversation,” I am sensing that everyone immediately got a picture in their heads of the kinds of conversations I’m referring to. Before we share about those thoughts, I want to pause and help us frame how we’re thinking about these conversations. Sometimes by labeling these conversations as difficult, we set ourselves up for a negative response and for assuming things won’t go well. So I’d like to encourage us to try to call them opportunity conversations. When an understanding and processes are in place, difficult conversations can begin to lose the feeling of being difficult and begin to look and feel like opportunities for clarity, deeper understanding and appreciation, and consensus. These conversations can provide you, the mentor, with an opportunity to tackle issues, build self-efficacy, and maintain trust.

**Facilitator does:** Animate slide to replace Difficult with Opportunity.

**Facilitator note:** DO NOT CHANGE SLIDE! IT IS ANIMATED FOR EFFECT.

## Guiding Questions

- What is a difficult/opportunity conversation?
- What kinds of topics might be difficult for mentors to talk about with mentees?
- How do mentors prepare for a difficult/opportunity conversation?
- What process can mentors use to structure difficult/opportunity conversations?
- How are my views about difficult/opportunity conversations changing?



49

● **Duration:** 1 minute

● **Facilitator says:** The guiding questions we will answer about difficult conversations are on p. 32. Take a minute and read through them. Tell the person sitting next to you which questions are most interesting to you.

## Difficult Opportunity conversations are . . .

*those you'd rather not have because  
they are uncomfortable.*



50



**Duration:** 5 minutes

**Facilitator says:** What is a difficult/opportunity conversation? Think of a conversation that you have had that you'd classify as this type of conversation and tell your teammates what makes it, in your mind, a difficult/opportunity conversation. This can be a conversation from any area of your life.

**Facilitator does:** Give teams 2 minutes to share features of a difficult conversation at their tables; listen in.

**Facilitators says:** So we know that these kinds of conversations exist in pretty much every facet of our lives. Let's now reflect specifically about our role as mentors. What qualities make a mentee/mentor conversation difficult?

**Facilitator does:** Give teams 2 minutes to share features of a difficult mentee/mentor conversation at their tables; listen in. Then share a few from the whole group.


**Facilitator says:** Our simple definition of a difficult conversation is on p. 32.



**Facilitator does:** Animates the slide to show the definition.

## Example Topics

What difficult conversations have you experienced so far as a mentor?	What other kinds of topics might be difficult for mentors to talk about with their mentees?



51

**Duration:** 5 minutes

**Facilitator says:** In your packet on pg. 32 is a table that looks like this slide. With your table, please discuss: What difficult conversations have you experienced so far as a mentor? What kinds of topics might be difficult for mentors to talk about with their mentees? What are the kind of things you didn't want to talk about because they were uncomfortable, or could you imagine you wouldn't want to talk about because they're potentially uncomfortable? You can jot your ideas in the table.

**Facilitator does:** After 3 minutes, randomly call on individuals, being sure to distribute responses widely around the room. Gather several ideas.

**Facilitator says:** The tricky thing about difficult conversations is that what may seem difficult for one person to talk about would not be difficult for another person. But we've got a good range of lots of different conversations that could potentially be difficult as mentors.

One other thing to remember is that if the partner in the conversation changes, you may no longer consider the topic difficult. You can imagine all kinds of situations like that—what you talk about with a significant other, for example, might not be as easy to talk about with a colleague at work, or vice versa. All the factors you mentioned earlier influence what is perceived to be difficult, yet the most influential one is the

safety or perceived risk in the conversation. If one person feels that he or she is being threatened or is at risk in some way, the conversation is not only potentially difficult, it can be disastrous. Given that you are the more experienced person in the mentor-mentee relationship and the other person is new, potentially unsure, and looking to you for support, and also possibly anxious or defensive about their teaching abilities, that can make the conversations you have with mentees particularly difficult.

## Why Bother?

- Speaking your truth contributes to an environment of trust.
- Expressing your concerns reduces your level of stress.
- Saying what's on your mind increases your sense of self-efficacy.
- Addressing issues when they arise builds and maintains a productive, trusting relationship.
- Having these conversations models for mentees.
- Tackling issues simply handles them instead of letting them linger and get more difficult to address.



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● **Duration:** 1 minute

● **Facilitator says:** So given the potential risks in engaging in these conversations, why bother? Wouldn't it be so much easier to just avoid them? (haha)

● But in reality, we all have difficult conversations that are a routine part of our days as people and as professionals. Whether these conversations are with students, colleagues, parents, supervisors, etc., we can support mentees in developing capacity to have these conversations by modeling them, making them routine and immediate when necessary, and not being stressed by them.

● Reframing your perception of these difficult conversations as opportunities for growth and learning and committing to developing your capacity and comfort with handling these conversations is an important aspect of your role as mentor.

● These are the reasons why we must commit to having these types of conversations with your mentee.

● **Facilitator does:** Click to animate and read slide

## Let's Reflect



- How are difficult conversations an opportunity to tackle important issues, build self-efficacy, and maintain trust?
- What does this mean to you as a mentor?



● **Duration:** 3 minutes

● **Facilitator says:** Let's take a minute to connect this idea of turning difficult conversations into opportunity conversations. Take 2 minutes and turn to pg. 33 of your handout packet. Use the space provided to describe in your own words how difficult conversations can be an opportunity to tackle important issues, build self-efficacy, and maintain trust. What does this mean for you in your mentor practice?

## Difficult Conversations: 3 Key Components

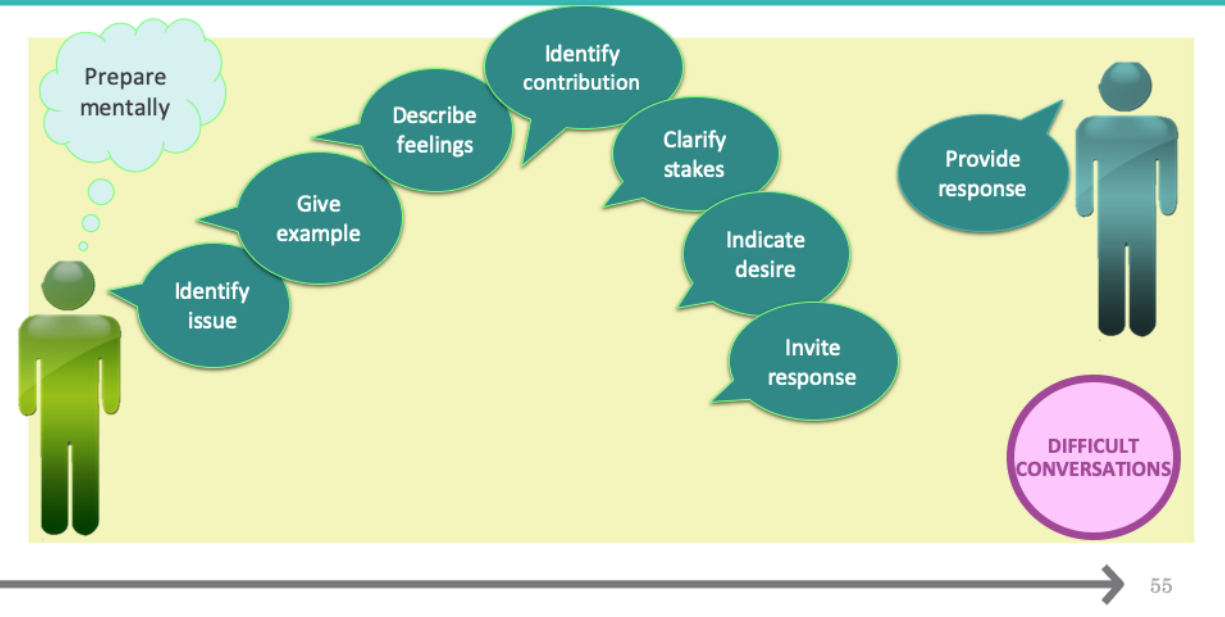
- See difficult conversations as important opportunities
- Use the “Opportunity Conversation” protocol to structure difficult conversations
- Plan for engaging in Opportunity Conversations with your mentee



54

- **Duration:** 1 minute
- **Facilitator says:** So now that we’ve built a shared understanding of what difficult conversations are and how they are golden opportunities for us to mentor our mentees, let’s turn to HOW we can do this! How can we turn these difficult topics into opportunity conversations? We’re going to use a protocol called the Opportunity Conversation Protocol to help us structure these conversations and turn them into opportunities to learn and grow.

## “Opportunity” Conversations Protocol



- **Duration:** 6 minutes
- **Facilitator says:** Knowing how to plan for and engage in conversations that seem difficult yet are opportunities for strengthening relationships gives mentors both confidence and capacity to hold these conversations. This Opportunity Protocol is outlined on p. 34-35 of your handout. Let's first talk through the steps. As I describe each step to you, you'll see that next to it in your packet is a blank space. While I'm talking for each step, sketch a quick doodle of a symbol or visual that represents the step and that will help you remember what happens in that step. This will help you internalize and remember the steps of the protocol.
- First, the mentor prepares mentally and gets in the right frame of mind. Rather than thinking about this situation as a burden, consider it an opportunity. Rather than consider it something you'd rather not do, consider it something that enhances your relationship and your awareness. Think about what you want from the conversation, why it is important to you to have it, and what you want for the other person. What is the positive benefit for the other person? Consider if you are emotionally ready for the

conversation, meaning do you know how you have contributed to the situation, are you ready to take responsibility, and can you envision what is in it for your partner? Have you considered first what you can do to alter the situation and yourself before you ask another person to change? You'll also want to think through all the steps of the conversation so you know what you're going to say.

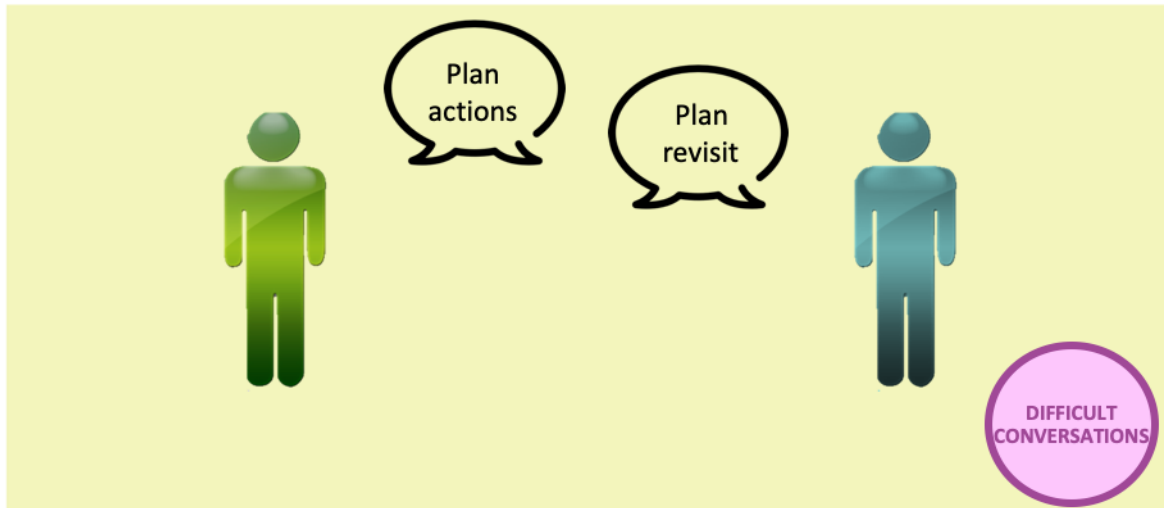
- Second, identify the issue or topic to discuss. Make it clear, factual, important to talk about, and straight-forward. Keep language objective. Use an informational tone. Stay neutral. For example, "I'd like to discuss what it looks like when we are co-teaching together."
- The third step is to give one very specific example—just one. Include in the example as many objective details as possible. For example, you might say, "On Tuesday, during our math co-teaching lesson when I was teaching students about ratios, you were looking at your phone in the back of the room. Our agreement was that when I was teaching you would be assisting the students."
- The fourth step in the conversation is to describe your feelings about the situation. "I was both surprised and disappointed that our agreement was broken and that students and the lesson didn't have your full attention. I was particularly frustrated because this is something we have discussed previously."
- The fifth step is to take responsibility and identify how you are contributing to the situation. You might say, "I take some responsibility for this situation because I have not said that it is absolutely important for you to be completely present and participating during co-teaching so that we are learning together. I made an assumption that you would understand this, and I did not set a firm expectation about it with you. I wish I had made it clearer to you."
- The sixth step is to clarify the stakes. This is a step that includes saying what will happen both to the relationship and to the situation if nothing changes - the impact the issue is having. A possible stake might sound like, "I want you to be successful as a teacher. Being a successful teacher means constantly learning, refining your practice, and making small changes to improve. Not making any changes means that you are unwilling to refine your practice and that will have an impact on your effectiveness as a teacher."
- Step seven is to indicate your desire to resolve the situation. This might be just a simple statement such as this, "I don't want to feel disappointed or frustrated with you because our working relationship is important to me. I'd like to take some time to resolve this now so we can move on."
- Step eight invites a response from the other person. You'll simply ask, "what does that make you think?" The hard part of this step is that you now need to listen fully without the need to advise, fix, or solve at this point. You want to



hear the other person's story so you understand the situation from his or her perspective. This takes patience because in some way you have made up your mind that the situation is serious, yet you don't yet know the other person's perspective. Be patient and hear what the person says without judgment. Your invitation might also require some wait time. The way this conversation started was with you doing all the talking, so it might take a minute for the mentee to find his or her voice. In all likelihood, the mentee might not be expecting a chance to tell his or her story. You might have to say, "I'd like to hear your perspective." And, then genuinely be open to be moved by the rest of the story. You never know, the mentee might say something serious like, "My roommate has been very depressed lately and I am worried about her. I am so worried that she might be suicidal so I respond as quickly as I can to any outreach. This morning she seemed particularly distraught. I am sorry for breaking our agreement, yet I felt like I needed to respond to her." That would be a very different reason for being on her phone during a lesson than that she was checking instagram!

- **Facilitator does:** Animates slide for discussion of each step.

## “Opportunity” Conversations Protocol



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- **Duration:** 2 minutes
- **Facilitator says:** Step nine of the conversation is to ask your mentee to work with you to plan actions to address this situation. This is the point in the process when the mentee becomes a partner rather than a recipient of the process. You might say, “Thanks for letting me know this situation. It must feel terrible to be pulled in two directions—your students’ learning and your roommate’s well-being. I know it may be hard for you to imagine now, however you will often find yourself facing choices like this. How you handle them now will set a precedent for how you handle them later. Let’s talk about some ways to handle this situation and situations like this in the future.” Then the mentor and mentee generate together some possible actions and agree on those they will take. For example, they might agree that cell phones are off limits during instructional time. Or, they might agree that if some dire situation arises that might require immediate response such as when a child is ill or another emergency occurs, they will inform the other ahead of time that this is happening and seek permission to have the phone on to check periodically. They will also consider if their agreement about cell phone use

models the salient practice they want of students.

- The tenth and last step of the process is to plan when they will revisit their new plan to make sure it is working. A mentor might say, “Let’s check in with each other in a week to see if this agreement is working as we hope or if we want to adjust it in some way.”
- What might be obvious to you as we review this process is that the need for conversations like this are increasingly minimal if you and your mentee have invested time in developing your partnership agreements and revisit them frequently. Many breakdowns occur when those in a relationship fail to clarify or establish agreements or when the agreements are not kept.
- **Facilitator does:** Animates slide for discussion of each step.

## The protocol in action



Read the transcript:

- What do you notice about each step?
- What do you want to keep in mind for when you try the protocol?



57

- **Duration:** 12 minutes
- **Facilitator Says:** So we're going to have you get up and find a partner. We're going to give you about 5 minutes to read a transcript of an Opportunity Conversation between a mentor and a mentee and then you'll discuss it. It's on pages 36-37 in your packet. As you read, please mark up and take notes. You'll see that in your handout packet there is space to make notes about each step. There are two guiding questions on the slide to give you a lens for your reading.
- **Facilitator Does:** Provide 5 minutes for participants to read and make notes.
- **Facilitator Says:** Okay, so you just got a chance to read an example of the Opportunity Protocol in action. Take 5 minutes in your partnership to use the two questions on the slide to discuss what you just saw: What did you notice about each step? What do you want to keep in mind for when you try the protocol?
- **Facilitator Does:** Listen in and share out any important noticings.
- **Facilitator Says:** Great, thank you for discussing.

## “Opportunity” Conversation Practice

- Decide who will play the mentor and who will play the mentee.
- Read the scenario.
- Use the “Opportunity” Conversation Protocol to role play how you would turn this potentially difficult scenario into an opportunity for learning and trust.



58

● **Duration:** 15 minutes

● **Facilitator says:** In your packet on pg. 39 you'll see we've also given you two more conversation examples that you can use to support you in the next activity. They are sample “Opportunity” scenarios. You are going to role play the scenarios with your partner. With them, decide who will first role play the mentor and who will role play the mentee. Read through the scenario. Use the steps of the scenario to practice having an “Opportunity” conversation about this scenario. Then switch roles and try again with the other scenario.

● **Facilitator does:** Circulates, support, and facilitates pairs in their practice. After the practice is complete, have them return to their tables.

## Alternative “Opportunity” Conversation Protocol 2

- Review the alternative protocol
- Discuss:
  - How it is different from the first protocol?
  - Looking back at the list of topics we generated earlier, which of the two protocols might be best for each?



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● **Duration:** 10 minutes

● **Facilitator says:** Take a look at the Alternative “Opportunity” Conversation Protocol on p. 40. Read through it and discuss at your table. How is it different from the first protocol?

● **Facilitator does:** Give tables 4 minutes to read and discuss the first question.

● **Facilitator says:** This alternative protocol is useful in teams or when it is best to use a collaborative or inquiry approach to the “opportunity” conversation. So how might we use this protocol? Turn back to the list of possible “opportunity” conversations you identified on p. 32 and consider which of the two protocols might be most appropriate for each situation.

● **Facilitator does:** Give tables 4 minutes to look back at the topics they generated earlier and discuss the two protocols.

## Difficult Conversations: 3 Key Components

- See difficult conversations as important opportunities
- Use the “Opportunity Conversation” protocol to structure difficult conversations
- Plan for engaging in Opportunity Conversations with your mentee



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- **Duration:** 1 minute
- **Facilitator says:** Okay, so now that we've learned how to use the Protocols, let's make a plan for how you'll use this back in your school with your mentee.

## “Opportunity” Conversation Practice

- Plan forward
  - How might you use the Protocol with your mentee?
  - What is a potential future opportunity conversation you anticipate you may engage in?
- Write out your personal scenario
- Jot a few notes for each step
  - What might you say to facilitate the Opportunity Conversation?
- Share your plan with a partner
- Invite feedback on how your example aligns with the aspects each step. What suggestions does your partner have for you?



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### ●Duration: 15 minutes

●**Facilitator says:** You will now have a chance to practice your own personal opportunity conversation. You’re going to work with your New Orleans Saints partner. Once you are seated with them, you’ll each choose an authentic situation so your practice can be beneficial. You might look back at your table of example topics that you generated earlier. It might be something you anticipate coming up soon. It might even be a conversation that you have been postponing or one you tried to have that didn’t go great. You will share your conversation plan with your partner so it is best to choose a situation that is not too personal or confidential. Plan what you would say. Planning an opportunity conversation is one way to remove the emotional load in these conversations and to slow down your thinking so you can create a safe, blame-free, risk-free space for the conversation. It also helps you check your language and your delivery.

●Take 5 minutes to plan what you will say. Then you will share your conversation with your New Orleans Saints partner, who will give you some feedback.

●Partners, take one minute to share with your colleague how closely the conversation followed the process, sounded to you, and felt to you. What



suggestions do you have?

● **Facilitator does:** Circulates, support, and facilitates pairs in their practice, then ask everyone to return to their seats.

## Reflect on “Opportunity” Conversations



How are my views about difficult/opportunity conversations changing as I learn more about how to engage in them?

- Individually jot responses to the questions.



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●**Duration:** 3 minutes

●**Facilitator says:** Take 3 minutes individually to respond to the reflection questions on p. 42

## Key Takeaway

The “Opportunity Conversation” protocol is an effective method for facilitating difficult conversations with a mentee.



63

- **Duration:** 1 minute

- **Facilitator says:** When we come back together for Module 8, we’re excited to hear from you about how you’ve used the Opportunity Conversation protocol with your mentees, and what opportunities arose from them!

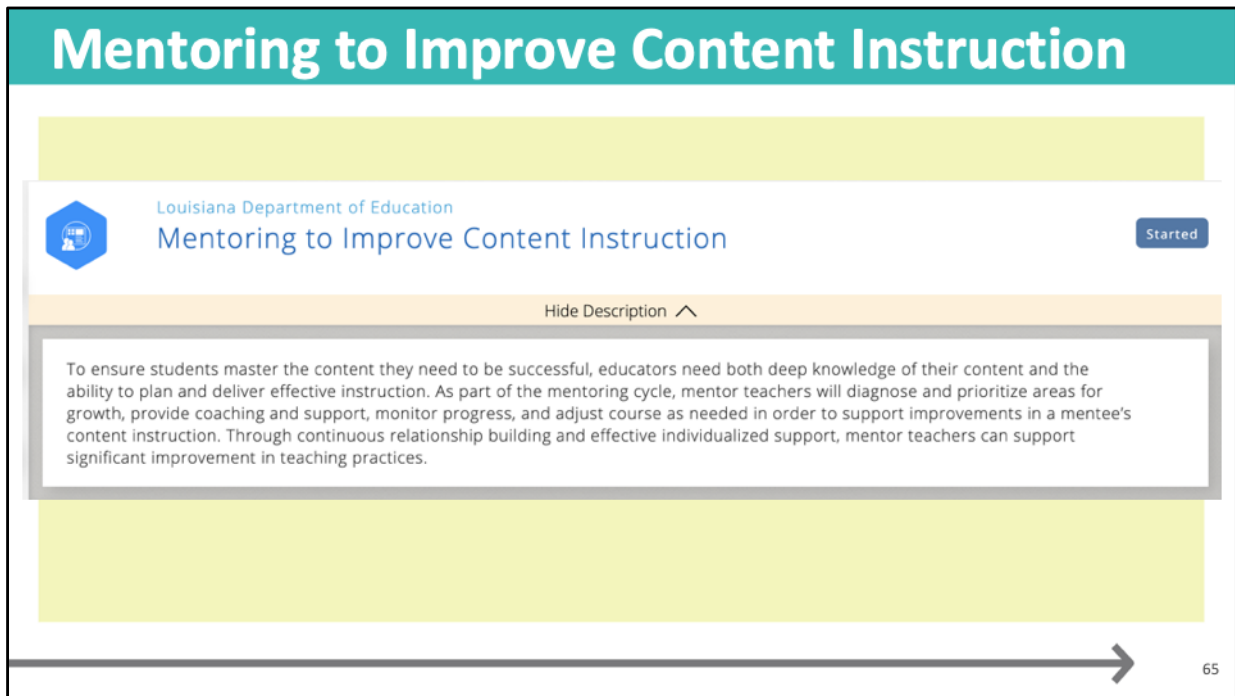
# Connection to Assessments

64

## SECTION START: 3:25

- **Duration:** 30 seconds
- **Facilitator says:** So let's take a look at where reflection and difficult conversations appear in the assessments of your mentoring practice. We will also look at which assessment the morning content aligns with.

# Mentoring to Improve Content Instruction



Louisiana Department of Education

Mentoring to Improve Content Instruction

Started

Hide Description ^

To ensure students master the content they need to be successful, educators need both deep knowledge of their content and the ability to plan and deliver effective instruction. As part of the mentoring cycle, mentor teachers will diagnose and prioritize areas for growth, provide coaching and support, monitor progress, and adjust course as needed in order to support improvements in a mentee's content instruction. Through continuous relationship building and effective individualized support, mentor teachers can support significant improvement in teaching practices.

65

- **Duration:** 2 minutes
- **Facilitator says:** Take 1 minute and read through the description of this assessment. (After 1 minute, ask) Where do you see the connection in this assessment with what we've learned so far? (invite a few answers from participants)
- **NOTE:** Answers should include the following:
  - We've now learned about every aspect of this assessment
  - In particular, today's work on reflection and difficult conversations moved our thinking forward on how to "adjust course as needed" and "continuous relationship building and effective individualized support".

# Demonstrating Math Content Knowledge

The screenshot shows a digital assessment interface. At the top, there is a teal header with the title 'Demonstrating Math Content Knowledge'. Below this is a white header area containing the Louisiana Department of Education logo on the left, the title 'Demonstrating Math Content Knowledge' in the center, and a 'Started' button on the right. A 'Hide Description' link with an upward arrow is centered below the header. The main content area is a white box with a grey border containing the following text: 'The educator connects deep mathematical content knowledge and understanding of the Louisiana Student Standards for Mathematics (LSSM) to the planning and implementation of a Tier 1 math curriculum. Within a Tier 1 math curriculum, the educator applies their knowledge of the key shifts in the mathematics standards focus, coherence, and rigor in order to engage in purposeful, collaborative planning and implement the curriculum with fidelity in the classroom.' Below the text box is a large yellow rectangular area. At the bottom right of the interface, there is a right-pointing arrow and the number '66'.

- **Duration:** 2 minutes
- **Facilitator says:** Take 1 minute and read through the description of this assessment. (After 1 minute, ask) Where do you see the connection in this assessment with what we've learned so far? (invite a few answers from participants)
- **NOTE:** Answers should include the following:
  - "...applies their knowledge of the key shifts in the mathematics standards focus, coherence, and rigor in order to engage in purposeful, collaborative planning and implement the curriculum with fidelity in the classroom" - this morning's focus on purposeful planning.

## The Assessments

<https://my.bloomboard.com/home>

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- **Duration:** 6 minutes
- **Facilitator says:** I'm going to log on to the platform and give just a high-level overview of each of these three assessments so you can continue to make connections between what we've learned so far and the expectations of these two assessments.
- **Facilitator does:** Log on using the generic username and password below.
- Review the following highlights live on the platform for participants:
  - Mentoring to Improve Content Instruction
    - Participants may have already chosen to use Math for this module, which is totally fine. In that case, they should continue on with their math work.
    - Analyze -If participants want to use ELA for this module, they are ready to accomplish this part of the assessment. They know what to "look-for" when it comes to strong ELA instruction and they know how to conduct an observation, analyze that data to prioritize a need, and set goals.
    - Develop - If they want to use ELA, they are ready for this part

- of the assessment as they know how to develop a coaching plan.
- Implement - If they want to use ELA, they are ready for this part of the assessment as they should have already started relationship building, and hopefully have started coaching as well. They now have also learned how to monitor progress.
  - Evaluate - Today we learned how to engage in reflection - once you complete a coaching cycle with your mentee, you'll engage them in a reflection and submit that and then write your own reflection to submit.
- Reading Complex Grade-Level Texts
    - Analyze - You learned how to analyze a text yesterday, so you are ready to do this
    - Develop - You can do this part based on your learning yesterday and today
    - Implement - For this step you'll implement the plan you create for steps 1 and 2 and collect 3 pieces of student work.
    - Evaluate - they will write a reflection on the lesson by answering the questions listed.
  - Expressing Understanding of Text Through Writing
    - Analyze - Today we looked at pieces of student writing; you can use that experience to support you in this part
    - Develop - You can use what we learned this morning to support this; we will also spend more time on this in Module 8
    - Implement - now they will implement the plan from develop and collect 3 more pieces of work; they will learn more about how to do this in Module 8
    - Evaluate - they will write a reflection on the plan by answering the questions listed.

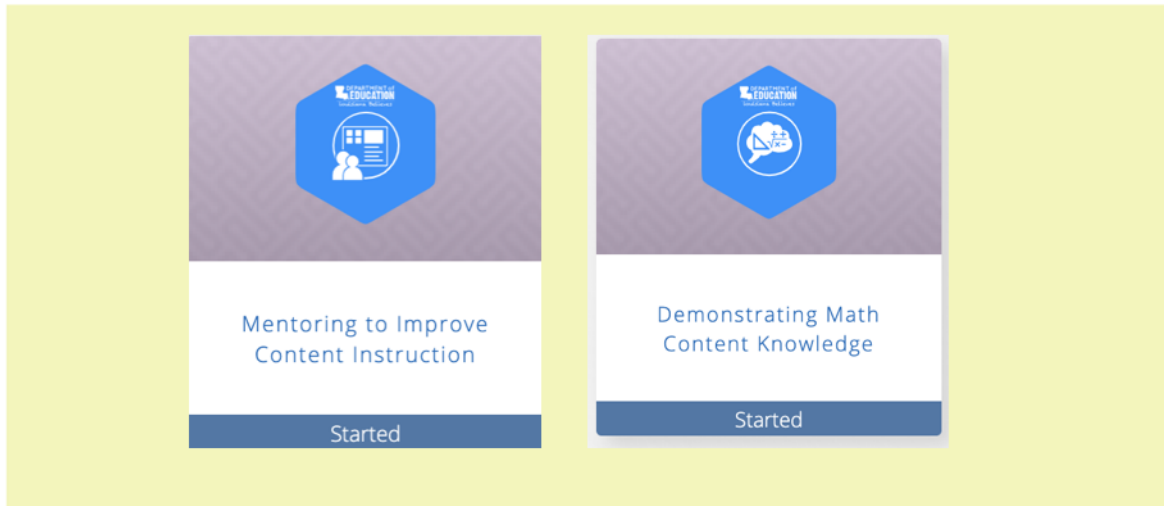
<https://my.bloomboard.com/>

**Username:** learningforwarddemo@bloomboard.com

**Password:** BBLearning4ward



## Work Time



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- **Duration:** 15 minutes
- **Facilitator says:** Now take some time to log on yourself and explore these two assessments and see what additional work you see needing in order to accomplish the tasks. There may be work you can do right now, or there may be planning work that you can do - such as emailing your mentee a schedule for some coaching work you're going to do. Try to take advantage of your team at this time to talk through any issues or questions you are having.

## Work Following Modules 6 and 7

- Engage in the mentor cycle with your mentee
- Check to ensure that you are creating and collecting artifacts you can submit for your assessments

*Bring all of your mentor materials to all of the sessions - especially the artifacts of your work you'll be collecting when you start your work with your mentee!*

**Duration:** 1 minute

● **Facilitator says:** At the end of every module, we'll let you know what makes the most sense for you to focus on back at your school. Now that the school year has started, you have hopefully already begun engaging in the mentor cycle with your mentee. Your job after this module is to continue to do that work, making sure that as you do that work with your mentee you are creating and collecting artifacts that you can submit for your assessments.

## Module 7 Morning Outcomes

- Describe the role of text dependent questions in building knowledge of grade-level complex texts.
- Explain the Guidebooks approach to writing instruction, including an overview of the three types of writing called for by the standards and included in the curriculum.

70

● **Duration:** 30 seconds

● **Facilitator says:** We did it! We're at the end of another jam-packed two days together. This morning, we [read slide].

## Module 7 Afternoon Outcomes



- Engage mentee in reflection on practice



- Facilitate difficult conversations using the “Opportunity Conversation” protocol

71

● **Duration:** 30 seconds

● **Facilitator says:** And this afternoon we [read slide]

## Module 6-7 Survey

Complete the Module 6-7 survey at:

<http://tinyurl.com/y5kyoz9c>



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- **Duration:** 5 minutes
- **Facilitator says:** Please complete the survey before you leave. Your input helps us be better in our work to support your learning. Remember to scroll to the bottom of the page to find the survey. Thank you and we'll see you at Module 8!