

Embedding Formative Assessment Within an Instructional Routine

April 6th, 2017 9:45am - 11:00am
NCTM ANNUAL MEETING, SAN ANTONIO

Session Goals:

1. Participants will learn about an instructional routine they can use with their students by experiencing the routine as learners as I model the routine.
2. Participants will learn how to embed formative assessment strategies within an instructional routine by unpacking the instructional routine to make explicit the formative assessment strategies embedded within it.

AGENDA

Welcome

What are Dylan Wiliam's 5 Formative Assessment Strategies?

Experience an Instructional Routine #1

Experience an Instructional Routine #2

Connect the Instructional Routine to the 5 Formative Assessment Strategies

Closing and Next Steps



curriculum.newvisions.org/math

Participation Norms

1. **Help one another to speak.**

We stay aware of and contribute to the equity of voices in the room. If we usually don't talk much, we will challenge ourselves to speak more. If we find ourselves talking more than others, we will speak less.

2. **Welcome Diversity**

We value and learn from our different opinions, experiences and practices. We respect all cultures, races, sexual orientations, gender identities, class backgrounds, abilities, and perspectives.

3. **Collaboration & Relationships**

We collaborate to improve our practice and the learning and experiences of our students. We are in this together. We are authentic in our questions, concerns and feedback.

4. **Bring a Growth Mindset**

We enter each session with a growth mindset in order to be open to change and new ideas. We are willing to receive feedback from colleagues in order to grow as individuals and a community and willing to provide feedback that supports growth.

5. **Self Responsibility**

We take care of our physical, mental and emotional systems. We candidly ask our questions, voice our concerns and share our feedback. We take what we came for--this workshop is entirely meant to support us.

6. **Say The Thing**

We take responsibility for saying the thing that everyone is thinking, but that others might be scared or hesitant to say. We say the thing that might make us sound different, but that no one else will ever say.

USEFUL LINKS:

Copies of this booklet and all resources from today can be found at:

<http://math.newvisions.org/workshops>

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Connecting Formative Assessment to Instructional Routines

	Where in the instructional routine do you see evidence of this formative assessment strategy?
Clarifying, sharing, and understanding learning intentions and criteria for success	
Engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning	
Providing feedback that moves learning forward	
Activating learners as instructional resources for one another	
Activating learners as owners of their own learning	

Further reading: **Embedded Formative Assessment** by Dylan Wiliam

CONTEMPLATE THEN CALCULATE #1

META-REFLECTION #1:

CONTEMPLATE THEN CALCULATE #2

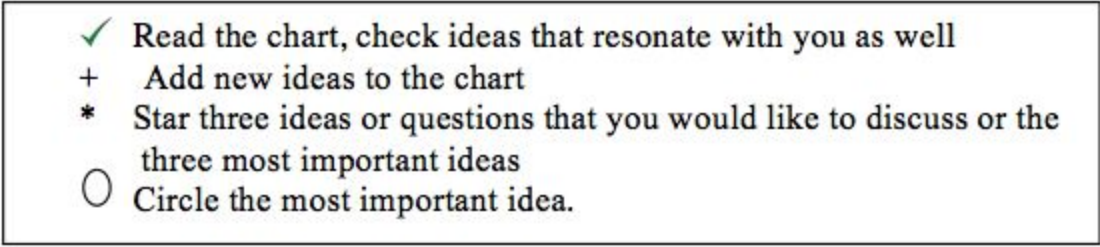
META-REFLECTION #2:

NOTES/QUESTIONS ABOUT THE ROUTINE

Further reading: ***Routines for Reasoning*** by Grace Kelemanik, Amy Lucenta, and Susan Janssen Creighton

Idea Carousel

1. Post topics and chart paper around the room (one topic per chart paper).
2. Ask participants to go to a topic that interests them most (no more than three people to a group – so some may have to choose 2nd choice).
3. Brainstorm things you think that you know, questions, or concerns that you have about this topic onto the chart paper. Divide chart paper if more than one task is given such as things you think that you know and questions.
4. Rotate to the next chart and take your marker. Change who is the recorder.

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- ✓ Read the chart, check ideas that resonate with you as well
 - + Add new ideas to the chart
 - * Star three ideas or questions that you would like to discuss or the three most important ideas
 - Circle the most important idea.

5. Repeat step four as many times as is necessary for each group to rotate to each other group's poster.
6. Gallery walk around to see the other chart papers – end at your starting place. Notice the changes to your chart. Put an ! point next to things that surprise you.
7. Sit down – discuss the charts –
 - a. See: Ask participants what they see in the charts,
 - b. Think: Ask participants what they think about the circles and underlines,
 - c. Wonder: Ask participants what questions should we pursue and what are our next steps.
8. Take a moment to write a down your own learning or take away from this activity.

Contemplate then Calculate

This instructional activity is intended to support students in making sense of mathematical ideas through mathematical structure (MP7) and to learn how to have mathematical discussions with each other (MP3).

In the activity students are given a quick flash of a mathematical object and asked to share what they noticed. From these noticings, students work together to create a shortcut to solving the question posed by the teacher. At the end of the routine, students reflect on what they paid attention today that might be useful to pay attention to tomorrow.

The flow of the instructional activity is:

<u>Launch:</u> 1. What is the thinking goal?	Tell students why they are doing this activity and how the activity will run.
<u>Orienting to the task:</u> 2. Noticings: (2 - 3 minutes)	Flash image <i>Circulate to hear what students noticed.</i> Think/Pair/Share, Record noticings.
<u>Come up with shortcuts/strategy:</u> 3. Individual Think Time: (10 - 30 seconds) 4. Partner work: (2 - 5 minutes)	<i>Circulate to select strategies to share.</i> Ask students to consider the task individually. Students design shortcuts together.
<u>Sharing Shortcuts/Strategies:</u> 5. Full group share: (2 - 3 minutes per shortcut/strategy)	<i>Include a variety of students to see how students collectively understand the strategies.</i> Students present connections, restate & annotate, agree/disagree, repeat 2 to 3 times.
<u>Meta-reflection:</u> 6. Individual writing: (1 - 2 minutes) 7. Pair: (30 seconds) 8. Share: (2 - 3 minutes)	<i>Circulate to select meta-reflections to share.</i> Students write a meta-reflection response. Example: "When interpreting ... I should look for ..." Students share their meta-reflection with their partner. Next ask specific students to share their meta-reflections while the teacher(s) record them for the class to read.

Notes