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# Learning Curve

## Measuring Instructional Impact on Student Learning



Math Solutions®  
FOUNDED BY MARILYN BURNS

[#LearningCurve](#)

[#learnfwd18](#)

# Welcome! Before the session begins...

- Please make a name tag. Use marker to write your first name in large letters.
- Introduce yourself to others at the table. Share where you're from and your role.
- Share why you wanted to attend this session.

"As teachers, we have the potential for tremendous agency - to make learning happen - if we'd only seize the chance to do so. Being a change agent means bearing witness to student learning, reflecting on it, and recognizing that student progress tells us something about ourselves."

John Hattie, *Visible Learning for Mathematics, What Works to Best Optimize Student Learning*, Corwin, 2017.

# Essential Questions

- What approaches/pathways can we use to be effective change agents?
- How can we help teachers develop sharper eyes for looking at student learning?

# Overview of Session

- The Instructional Practices Inventory (IPI)
- **First Approach:** Build understanding of an effective mathematics classroom
- **Second Approach:** Reflect on student learning using the IPI
- **Third Approach:** Collect data to examine effect of instructional practices

# Instructional Practices Inventory

Learning  
Environment

Reasoning  
and Sense-  
Making

Focus and  
Coherence

Formative  
Assessment

# First Approach

**Build Understanding of an  
Effective Mathematics Classroom**

# Math Task

Design a parking lot for cars (dimensions shown on the handout).

Work individually until we signal “time”. Then you’ll collaborate with a partner



# Partner Task

## Design a Parking Lot

1. Share your design with a partner.
2. Collaboratively create one more design.
3. Decide together on the best design.
4. Explain what it means to be “best.”

# Reflect

What indicators of the IPI were a part of this experience?

# Connecting to Your Work

- How could your colleagues benefit from an experience like this?
- What are the ways you could build understanding in a similar way?

# Second Approach

**Reflect on Student Learning and  
Set Goals with the Instructional  
Practices Inventory**

# Quiet Write

**Which of these indicators  
do your students do well?**

**Which would you like to see  
them do more?**

# High Five Partner Discussion

- Share your indicators for each question.
- How could using the IPI and asking these questions support your coaching with teachers?
- How might you replicate this method in your work? Be specific.

# Reflection and Goal Setting



## Reflection and Goal Setting Tool



### Positive Math Behaviors We See in Students

*What student indicators on the IPI do students already do well?*

### Math Behaviors We Want to See More in Students

*What student indicators on the IPI do you want to see students doing more often?*

### Specific Actions We Can Take to Foster the New Behaviors

*What instructional strategy will you try to support students with the desired behavior?*

### Ways We Will Measure Progress

*How will you measure the impact on student learning?*



# Third Approach

**Collect Data to Examine Effect of  
Instructional Practices**

**When we try new  
instructional strategies,  
how do we know we're  
really making a difference in  
student learning?**

# Data Displays

# The What...

- Descriptive, non-judgmental
- Captures a teacher's practice around an identified focus
- Provides the foundation for a productive collaborative coaching conversation
- Visual representation of what the coach observed
- Used to engage the teacher in conversation about instruction

# The Why....

- Helps coach to step out of the role of evaluator
- Ensures the coaching stays student-centered.
- Judgement about the data developed by the teacher/allows teachers to interpret their own data
- Teacher feels ownership of the feedback and set goals for future learning or more coaching
- Creates a structure for the conversation

# Characteristics of Strong Data Displays

- Connect to one key area of practice.
- Align data to the guiding question.
- Make it clear and simple.
- Use specifics.
- Be descriptive, not interpretive or evaluative.

(Adams, Ross, Burns, Gibbs, *Talking Points*, JSD, February 2015, Vol. 36 No. 1.)

## Reflection and Goal Setting Tool



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### Ways We Will Measure Progress

*How will you measure the impact on student learning?*

# Triad Task- Creating Data Displays

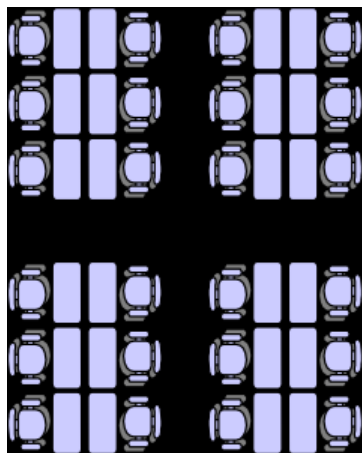
- Read the task card given to your group.
- Discuss with your group ways that you might collect data around the given action step and goal.
- Working together, design several data displays that you could use to collect data.
- Be prepared to share your ideas.



# Ideas to Get Us Started



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# Gallery Walk

Use a sticky note to...

- Add an idea for the data chart
- Compliment what you like and WHY you like it
- Suggest a tweak and reason behind it

# Share and Reflect

- What intrigues you about this method?
- How do you imagine using it in your work?

# Essential Questions

- What approaches/pathways can we use to be effective change agents?
- How can we help teachers develop sharper eyes for looking at student learning?

“Data is fundamental to student-centered coaching. It moves the coaching conversation away from what a teacher and coach *think* the teacher should be doing and focuses it on using student evidence to determine what they now know the teacher *can* be doing to improve student achievement.”

*Student-Centered Coaching, Sweeney, (p. 63)*

# Please, before you leave...

## Post-Session Evaluation

Take our 3 minute survey!

Your feedback will be used to:

- Understand the impact of our session
- Improve our facilitation


[bit.ly/2018SessionFeedback](https://bit.ly/2018SessionFeedback)

Session Number: 2403

**NOTE:** Session ID should be in all CAPS and is case-sensitive.

The screenshot shows a 'Session Feedback' report with a table of scores. The table has columns for 'Submitted By' (All Districts, No Session, Private School District, Leeward School District) and rows for 'Session Learning', 'Session Reactions', and 'Overall Feedback'. The scores are as follows:

Submitted By	All Districts	No Session	Private School District	Leeward School District		
Session Learning	2.0	1.5	1.5	3.0		
Session Reactions	2.3	2.0	1.0	2.3	3.0	2.5
Overall Feedback	3.0	3.0	3.0	3.0	4.0	

★ Your responses power our  kickup report



# Thank You

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