



**Math Solutions.**

FOUNDED BY MARILYN BURNS

# Measuring Impact: Coaches and Teachers Taking a Lab Approach to Teaching and Learning

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# Welcome!

Before we begin, please...

- Introduce yourself to others
  - Name
  - Where you're from
  - Your role in your school/district
- Share why you chose to join this session.



# Essential Questions

- How can we measure our impact on student learning?
- What are the advantages to taking a “lab approach” to teaching and learning?

# Overview

Welcome

Analyze Sample Data Collection Tools

Apply Key Characteristics

Create a Data Collection Process

Reflect on Learning




# Turn-and-Talk

How do you measure the effectiveness of the instructional strategies you use in the classroom?

# Quote Slide

“It is the specific mind frames that teachers have about their role – and most critically a mind frame within which they ask themselves about the effect that they are having on student learning.”

*John Hattie,  
Visible Learning for Teachers:  
Maximizing Impact on Learning  
Thousand Oaks, CA: Corwin, 2012*



How can we measure our  
impact on student learning?

# Task

Examine the tools and discuss:

- How does the data collection process support the question the teachers are exploring?
- What are your wonderings about data collection and data collection tools at this point?



# Key Characteristics

- Brief (no more than two pages long)
- Easy to understand
- Non-evaluative
- Descriptive
- Focused/Specific

*Talking Points: Data Displays are an Effective Way to Engage Teachers, JSD, February 2015.*

# Coaching Scenario Task

## Student Learning Target:

Students persevere in making sense of rigorous problems

# Discuss

What would students look like and sound like if they were *persevering in making sense of rigorous problems*?

List somewhere to use shortly.

# Choose an Action Steps

## Action Steps

Ask questions that support students' sense-making, while not telling them the answer. "What do you know about the problem so far?" "How have you solved other problems that could help you with this problem?"

Acknowledge students for their efforts, not for their intelligence.

Encourage students to verbalize what they have learned from mistakes and how they will apply what they have learned.

Encourage students to ask questions of their peers and their teacher.

Remind students that mistakes are not failures, but are opportunities to learn

# Select a Data Point

## Data Points

Examples of students working on problems when a solution is not readily apparent.

Examples of students continuing to work on problems even after finding initial solutions.

Examples of students asking each other questions about mathematical ideas when working with a partner/small group.

# Create the Data Collection Process

1. Design your tool together
2. Include the Student Learning Target, Action Step, Data Point(s), and a description for how you will collect the data

## BONUS:




Include a measurement goal

# Gallery Walk

As you review the data collection tools, discuss...

- What was easy and what was difficult about this process?
- What supports might you need to try out this process back at your school?



What are the advantages to taking a “lab approach” to teaching and learning?





# Five Steps for Getting Started

1. Find a team.
2. Start simple!
3. Be focused.



# Instructional Practices Inventory

Learning Environment

Reasoning and Sense Making

Focus and Coherence

Formative Assessment



# Five Steps for Getting Started

1. Find a team.
2. Start simple!
3. Be focused.
4. Celebrate success!
5. Make students part of the process.



# Call to Action

What's your next step in learning from the experiences in this session?

- A. Find a team/partner
- B. Share what you learned in the session with someone else
- C. Choose a goal and create your first data collection process
- D. All of the above (You overachiever!)



# Thank You

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