

# Observing Instruction in STEM Classrooms

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**Scaling STEM – Strategies That Engage Minds  
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# Learning Outcomes (Goals)

- You will learn about research-based important features of classroom instruction
- You will think about examples of these features and their relative importance
- You will practice using observation protocol and consider its usefulness for in-school professional development

# What We Will Do Today (Agenda)

- Overview of the observation protocol
- Activity 1: Read and discuss the training guide for a selected dimension of instruction
- Activity 2: Watch a video segment of a high school classroom and rate sub-scales for your dimension
- Activity 3: Discuss the ratings and the use of the observation protocol as a PD tool

# Overview of the Protocol

- Mathematics and Science Content
- Student Cognitive Engagement
- Inquiry/Problem-based Learning
- Formative Assessment
- Common Instructional Framework
- Student Engagement
- Use of Technology
- Classroom Culture

# Activity 1: A Close Look at One Dimension

- Read the Training Guide for your table's dimension
- Discuss with your table:
  - How accurately do the examples represent the features for your dimension?
  - Can you provide additional examples?
  - Consider the relative importance of features for the summary rating of your dimension

# Activity 2: Watch and Rate a Video Segment of a High School Classroom

- Watch a video segment
- Rate this segment on your table's dimension
- Discuss with your table:
  - What are the discrepancies in ratings?
  - Which examples from the video can you use to justify your ratings?
  - How did you come up with a summary rating?

# Activity 3: Consider an Observation Protocol as a PD Tool

- Discuss with your table:
  - How does this protocol reflect Strategies that Engage Minds?
  - How may this protocol be used as a tool for coaching and professional development?

# Thank you!

## For more information, contact:

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You can find materials from this workshop here:

SERVE STEM Resources:

<http://www.serve.org/STEM.aspx>