



Studio Day

Session Goals and Content

The goals of each Studio Day session are to

- Provide opportunities for teachers to focus on the Standards for Mathematical Practice in real-time, thereby increasing the level/quality of implementation,
- Recognize and enhance cognitive demand of tasks and lessons and integrate that knowledge into teaching practice,
- Develop shared images and understandings while deepening teachers' mathematical knowledge for teaching
- Foster new norms and habits-of-practice (individual & collective) in terms of planning, in-the-moment reflection, and a focus on student thinking guiding the trajectory of classroom discourse, and
- De-privatize practice and build professional community, and increase all students' achievement.

Pre-Observation Planning

Part 1 – Setting up the task: The studio teacher sets the stage in terms of a mathematical task that is central to the lesson, the mathematical goals of the unit, what has happened previously, what tools students will have, the groups students will be working in, etc. After this section, all participants share equally in the thinking around each of the subsequent sections. (*Thinking Through a Lesson Protocol (TTLP)*, NCTM 1998)

Part 2 – Participants do the math, look at multiple ways to solve the task, and explore:

- Which of the methods do you think students will use?
- What misconceptions might students have?
- What errors might students make?
- What particular challenges might the task present to struggling students or students who are English Language Learners (ELL)? How might these challenges be addressed?
- How will students record and report their work? (*TTLP*, NCTM 1998)

Part 3 – Analyzing the cognitive demand of the task: Participants work together to determine the cognitive demand of the task using a guide* adapted from "*Levels of Demand*", NCTM (1998). Participants then explore the question, "How will the activity be introduced to students so as to provide access to all students while maintaining the cognitive demands of the task?" A guide* derived from "*Factors Associated with the Maintenance and Decline of High-Level Cognitive Demands*", NCTM (1998), is helpful to this conversation.

Part 4 – Supporting Students' Exploration of the Task: Participants discuss how students will be supported in exploring the task using a protocol* adapted from the *TTLP*, NCTM (1998).

Part 5 – Sharing and Discussing the Task: Participants discuss considerations teachers might have while processing the task (see *TTLP* "Sharing and Discussing the Task" section).

Part 6 – Introduce the *Classroom Observation Guide* and establish the foci for the observation: The studio teacher chooses two of the six optional dimensions for participants to focus upon based upon the teacher's current goals in the

classroom. During the observation, the observers are to record *specific evidence* related to each of the dimensions being observed during the lesson.

Classroom Observation

Teacher enacts the lesson in the Studio Classroom in “real-time” with students. Participants observe and collect data on the ***Classroom Observation Guide*** as discussed above.

Debriefing the Session

The studio teacher and participants debrief the lesson. The purpose here is to examine and analyze the data from the ***Classroom Observation Guide*** and reflect upon the impact of the task and the impact of the teaching moves on student learning.

Give participants time to quietly record their reflections in writing on the ***Debriefing the Lesson*** form. These sections refer directly to the sections on the ***Classroom Observation Guide*** with questions #5-6 to be filled in with the optional dimensions established in the pre-observation session. For question #2, ask them to try to cite specifics from “*Factors Associated with Maintenance and Decline of High Level Cognitive Demands*” and “*Mathematical Task Framework Expanded*”, NCTM (1998), when recording evidence.

First, give the studio teacher the opportunity to comment on the lesson and any changes he or she would make. Then invite others to share their observations. Keep the focus on the evidence cited in their reflections and on student learning, rather than critiquing the teacher or making suggestions based upon participant perceptions of what could have been done better.

End the discussion by focusing on next steps in terms of student learning and potential next steps for the students involved in this lesson. You may also discuss potential next steps for the teachers engaged in this type of study of practice through Studio Days.

Works Cited

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