



The Learning Laboratory

How do students use each other as resources as they make sense of math and science ideas?

What kinds of thinking are happening (procedural, conjectures, justifications, revising, generalizing, etc)?

What evidence exists that students are engaged in the math or science content?

What is the relationship between doing procedures and exploring ideas in the math or science? What evidence is there for this?

Exploring questions such as these, participants in an MSC Learning Lab will have the opportunity to investigate and analyze student learning by directly observing students being taught math and science concepts by our MSC Collaborative Teachers.

A Learning Lab Academy Awaits You!!!

K-12 Math and Science Teacher Leaders and K-12 Administrators are invited to participate in the MSC Learning Laboratory Academy. The Learning Laboratory incorporates “fishbowl” approach for observing and analyzing student science/math thinking. Participating educators observe and hear the math and science learning of an assigned student for a three day period. In this opportunity, the teachers experience the application of the content featured in Teacher Leadership Academies to a real-life setting rather than through videos or written cases. In using the fishbowl approach, observation leads to analysis, and the teacher learning, based upon the student learning, continues to grow. Generative learning is at work! The concept is based upon the premise, “We are all teachers; we are all learners”.

After observing the students learning in the math/science lesson, teachers and administrators will:

- Practice/engage in accountable and constructive discussion.
- Share their own content understandings.
- Share their interpretations based on evidence, of student content understandings.
- Build on each other’s understandings of the student learning.
- Recognize and discuss students’ misconceptions.
- Analyze and discuss the learning environment which contributes to student understanding of the math/science concepts.
- Analyze and discuss curriculum content related to student learning.

The format for each of the three days evolves around the following:

PRE-LESSON—Participants will engage in discussion about what to expect concerning student learning of the concepts being taught. How will students approach the understanding of the concept/s? What problems could arise? What kinds of questions would be good probing questions?

DURING THE LESSON—All will observe the learning of the individual students and take thorough notes on that learning. A guide, developed from the expanded observation tools from *Lenses on Learning*, will be used.

POST-LESSON—Thorough analysis of the learning that was witnessed will be discussed. How did what was observed, analyzed, and discussed relate to the content that been developed in the academy sessions? What did the participating educator learn from each daily session?

The Learning Laboratory will meet for 3 days in the summer, 8:30 to 3:30. This year, 3rd, 6th, and 7th grade students will be taught and observed at two regional school districts (to be announced)

The dates for this summer's Learning Labs are:

*** June 22-24, 2010**

OR

*** June 29-July 1, 2010**

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