Improving Instruction through “Lesson Study”

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21 October 2018
Overview of today’s session

• The enduring challenge of improving teaching
• What is “lesson study”? A brief sketch
• What lesson study has to offer for improving instruction (where other efforts have failed)
• Where is lesson study problematic?
Point of Departure

Consensus that we need to improve learning and achievement
We would need...
- Teachers’ deep content knowledge
- Teachers’ pedagogical knowledge
  - Both necessary but not sufficient
- Collective work on teaching

and this implies...
- Serious content learning for teachers
- Linked to instruction
- Collaborative, ongoing, long-term
- Broad view of authentic learning
- Takes school mandates seriously
BUT... instructional improvement eludes us

- Lortie’s “apprenticeship of observation”: return to defaults
- Teaching is “women’s work” and therefore not professional
- Short period of training
- Difficulty in measuring real success
- Isolated work rooms
- Practice is interactive, contingent, dynamic
- Lack of shared norms and professional language
Lesson Study Cycle

1. STUDY
   Consider long term goals for student learning and development
   Study curriculum and standards

2. PLAN
   Select or revise research lesson
   Do task
   Anticipate student responses
   Plan data collection and lesson

3. DO RESEARCH LESSON
   Conduct research lesson
   Collect data

4. REFLECT
   Share data
   What was learned about students learning, lesson design, this content?
   What are implications for this lesson and instruction more broadly?

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Lesson Study Cycle

1. Set Goals and Objectives
2. Design Lesson
3. Deliver and Observe Lesson
4. Discuss and Reflect

Phases of the lesson study cycle adapted from “Implementing Japanese Lesson Study in Foreign Countries: Misconceptions Revealed” by T. Fujii, 2014, Mathematics Teacher Education and Development, 16(1), p. 4. Copyright 2014 MERGA.
Teachers Study Curriculum and Content
Lesson Plan  
Grade 5  
Designed by members of MTEI Cohort 6

Title of the lesson: Understanding God’s Promise and Our Connection to the Land of Israel

Enduring understanding: “In multiple places, the Bible reports God’s promise[s] of the Land of Israel to the Jewish people, which is a source of our connection to the Land of Israel [even today].” (adapted from CHAI curriculum)

**Goals for this lesson:** Students will:
- read and interpret Biblical texts that describe God’s promise of the Land of Israel to the Jewish people
- gain skills and qualities to work with a Hebrew partner to understand text, hear another’s voice, and develop self-knowledge
- formulate ideas and substantiate them with text and with personal experiences

<table>
<thead>
<tr>
<th>Instructional block</th>
<th>Instructional tasks and questions</th>
<th>Anticipated student responses</th>
<th>Observation notes</th>
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</table>
| **Introduce ourselves**  
5 minutes 4:15 - 4:20 | T: “My name is... and we are visiting your class so that we can learn more about how to teach in Jewish schools. We are all teachers and we are hoping you can help us learn about how to improve our teaching. We’ll be making a video of the class today so that we can go back and see if what are trying is helping kids learn. We’re not focusing on you even though we are very interested in the way you think, but we’re trying to figure out if the way we designed this lesson helps kids learn, so the focus is on how we designed this lesson and how it gets taught. I really hope I can learn all your names today but you might have to remind me.” | | |

| **Launch + pre-assessment question**  
9 minutes 4:20 – 4:29 | Before we begin:  
We will pass out the pieces of Jerusalem stone for students to hold while they eat their snacks  
We will post a writing prompt on the white board: “When I think about the land of Israel, I feel...”  
Music will be playing on the computer and projected.  
T: “It’s just been Yom HaAtzmaut and some of you have been on the walk for Israel. It seems like a great time to be talking about Israel.” | | |
Co-Planning

1. Understand the learning task.
   - Children are lined up in a straight line. Yoshiko is in the 6th person from the front of the line and the 7th person from the back of the line. How many children are there altogether?

2. Individual problem solving
   - 12 people — 6 + 7 = 13
   - 12 people

3. Share the solutions.

4. Compare and critique the solutions
   - 6 + 7 = 13
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people
   - 12 people

5. Summarize in math journal sections.

To develop a sense of ownership of the problem, try to use a familiar situation in students' everyday lives as the setting of the problem.

Make sure students can represent their reasoning using pictures, diagrams, math sentences, words, or manipulatives of blocks.

Make sure that students are sharing the rationale for their answers.

Compare the two answers (12 people vs. 12 people) and examine the pictures, diagrams, and math sentences carefully.

When the different ways of getting the answer of 12 people becomes the topic of discussion, make sure students can explain their thinking. An example is, "Yoshiko is the 6th person in the line, then..."

Go back and forth between pictures/diagrams and math sentences in order to make the structure of the problem more explicit.

Can you represent the relationship in the problem situation with pictures, diagrams, math sentences and words?
Peer Observation: The Research Lesson
Reflection: The Debrief
NAME:

Why do you think the Jewish people feel connected to the Land of Israel?

I think the Jewish people feel connected because they are Jews and Israelis, their home and it's where they pray to G-d.
What does lesson study afford? What is problematic?
Brings together teacher educators, administrators, coaches, teachers around instruction
Brings together math educators, administrators, coaches, teachers around instruction
Evidence of children’s learning in instruction is arbiter
Careful work on routine practice
Operationalizes teachers’ learning for instruction
Problematics of lesson study
Problematics of lesson study

- Long-term effort
- Time-intensive
- (Overly?) focused on detail
- Culturally specific
- Requires unusual facilitation
What might lesson study produce?

- Polished lessons
- Collegial work on instruction
- Testing ideas in practice
- Teamwork on harder or novel ideas for teaching
- Sharpened vision to see student learning
What are teachers learning in lesson study?

• Shared language
• Networks of colleagueship
• Interest and improvement in subject matter knowledge
• Collective tinkering with elements of practice
• “Eyes to see students, ears to hear them”
• School-wide capacity