Warm-up

• Solve at least two of the problems from the problem sheet.

• Then, discuss similarities and differences between the problems with a partner.
Developing a Research Lesson for Preservice Teachers: Lesson Study in Higher Education

Presenters
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Who we are!

Edna (Morehead)

Landrea (Lexington)

Pat (Richmond)

Mike (Columbia)
What is Lesson Study?

Lesson Study is a form of professional development where groups of teachers (educators) meet regularly over long periods of time to work on the design, implementation, testing, and improvement of one or several “research lessons” – a modified working definition from *The Teaching Gap* (Stigler & Hiebert, 1999).
The Lesson Study Process

1) Focus on a concept or topic
The Lesson Study Process

1) Focus on a concept or topic

2) Plan the lesson collaboratively
The DEFINITION Conversation

The Math Resource Center (i.e., The Mathskeller)
University of Kentucky
April 6, 2005
The Lesson Study Process

1) Focus on a concept or topic
2) Plan the lesson collaboratively
The Lesson Study Process

1) Focus on a concept or topic

2) Plan the lesson collaboratively

3) Teach and observe the lesson
Teaching and Observing

The First Teaching
Eastern Kentucky University
May 31, 2005
The Lesson Study Process

1) Focus on a concept or topic
2) Plan the lesson collaboratively
3) Teach and observe the lesson
The Lesson Study Process

1) Focus on a concept or topic
2) Plan the lesson collaboratively
3) Teach and observe the lesson
4) Discuss and reflect on the lesson
Discussing and Reflecting

The Debriefing Session
Eastern Kentucky University
May 31, 2005
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The Lesson Study Process

1) Focus on a concept or topic
2) Plan the lesson collaboratively
3) Teach and observe the lesson
4) Discuss and reflect on the lesson
5) Revise the lesson
The Lesson Study Process

1) Focus on a concept or topic
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3) Teach and observe the lesson
4) Discuss and reflect on the lesson
5) Revise the lesson
6) Reteach and observe the lesson
Students and Definition

The Second Teaching
Bluegrass Community
& Technical College
November 9, 2005

Students wrote a definition, and then applied (tested) it.
Activity 3 Handout

Use the definition of a fraction to identify 2/3 of the following wholes.

1. [Diagram of seven circles]
2. [Diagram of a trapezoid]
3. [Diagram of a line segment]
4. [Diagram of a circle with a smaller circle inside]
5. [$30$]
After the collaborative group work, students evaluated each definition and chose one as the ‘best’ definition. By testing it with the activity problems, modifications were made to the definition.

-Fraction - a chosen portion of the total amount of parts in a whole

- numerator: The chosen portion
- denominator: The total amount of equal parts in a whole.

- make the total amount of objects

Hannah
Derek
Susan.
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7) A research lesson that may be used by others
What is the “research” in a research lesson?

• Analysis of data collected via observations
• Using resources to inform the lesson
• Using team members’ experiences to inform the lesson
• Literature review to identify misconceptions
Challenges

- Physical distances
- Incongruent schedules
- Investment of time
- Meeting locations
Benefits

- Self-reflection and life-long learning
- Mechanism for increasing content knowledge
- Opportunities to observe student learning
- Increased pedagogical content knowledge
- Improved individual lesson planning
- Collegiality
- Respect and trust
References


Lewis, C. “Lesson study PowerPoint presentation.” Can be found at: [http://www.lessonresearch.net/res.html](http://www.lessonresearch.net/res.html)