

Lesson Study in the Preservice Program

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What is Lesson Study?

- n It is a form of practitioner research originally developed in Japan.
- n It involves teachers collaborating to research a topic, then planning, teaching, and revising a lesson.
- n Where possible, teachers watch one another teach the jointly planned lesson.

Why include lesson study in preservice?

To instill the following ideas:

- n that competency in teaching develops over time,
- n that sharing ideas and results with colleagues is important, and
- n that exemplary lessons are the result of analysis and deep knowledge.

(Hiebert, Morris, & Glass, 2003)

My Research

- n Pilot test of a lesson study assignment in 2003-2004 with 2 classes – 1 Primary/Junior (PJ), 1 Junior/Intermediate (JI)
- n Enlarged testing of a revised assignment in 2004-2005 with 4 classes – 2 PJ, 1 JI and 1 Intermediate/Senior (IS).

Some Impressions from the Pilot

- n Most students responded positively to the experience – especially those who arranged to watch one another teach.
- n The activity generated a lively, ongoing conversation in both classes about how to present concepts.

Possible benefit

- n In several cases, candidates' attitudes towards their own teaching changed. They focused less on their "teaching mistakes" and more on finding methods to help students make conceptual links.

Revisions to assignment

- n Require preservice candidates to include information about timing, choice of manipulatives, and distribution of materials in addition to concepts.

Note: This is in line with findings on the beginning teacher's need to address class management and timing in addition to subject-related concerns.

Additional Revisions

- n Include more preparation in the course to help preservice candidates evaluate student understanding based on work samples.
- n It is crucial for partners to be teaching the same grade.

Revised Assignment Part 1

With a partner, submit the following.

1. A description of your planning, addressing the requirements under each of the headings: Research, Theory into practice, Lesson planning and preparation as outlined below.
2. A Lesson plan, developed according to the 3-part lesson format.

Research

Briefly outline two or more methods for developing conceptual understanding of the concept that you have chosen. These methods should reflect recent research in mathematics education. Please cite sources.

Theory into Practice 1:

- n Describe any mathematical misconceptions that students may have.
- n State the central problem or question that students will investigate and your rationale for selecting that problem.
- n Solve the chosen problem using two conceptually different strategies

Theory into Practice 2:

- n Describe how the opening of the lesson will link to students' prior knowledge.
- n Describe ideas, responses, or questions that you anticipate students might develop as they struggle with the problem.
- n Describe how you will draw together student ideas/strategies in the closing.
- n List at least 5 questions that you plan to ask to promote student thinking.

Lesson Planning and Preparation

- n Identify the curriculum expectation(s) that you will address in the lesson;
- n Include estimates of timing;
- n Describe how you plan to use the board, distribute materials and form groups;
- n Describe your assessment method(s) for the lesson;
- n Describe how you plan to address individual differences in level of math preparation.

Revised Assignment Part 2

Please submit the following.

1. Work of 4 students from each class, and your analysis of whether, and how that work provides evidence of student understanding of the concept(s) taught.
2. An analysis of the two sessions, addressing what went well, and what did not go well in light of your original plan.
3. A revised lesson plan accompanied by a brief rationale for the changes.