

Lesson Study in Mathematics

Spring 2003-2004 3 credits

Instructor: Jane Gorman

Framingham State College Division of Graduate and Continuing Education

Meeting Times/Dates:

4 All-day workshops [total = 30 hours]

8/19/03, 8/20/03, 12/5/03, 3/3/04

Research-lesson colloquia: To be scheduled at individual school sites at a date when the selected content topic occurs in the local curriculum.

Course Description

The course will provide secondary mathematics teachers with an introduction to lesson study in mathematics, a simple but powerful model of professional development commonly used in Japan. The focus of the course will be on what lesson study is, how it is used and understood in Japan and how U.S. secondary mathematics teachers are implementing lesson study. While learning about lesson study, teachers will also be conducting their own lesson study and will plan two research lessons in mathematics. The course will include a series of all-day workshops at Education Development Center, Inc., as well as participation in a school-site research lesson colloquium.

Course Requirements

- Participation in all workshop activities.
- Participation in lesson study at school site.
- Readings and written responses to discussion questions.
- Final Paper

Grading criteria

- Final paper and reading reflections: 50%, Workshop participation: 50%

Assignments: Reading assignments will be due as listed below:

1. Lesson Study and the culture of teaching.
Due date: This reading and reflection can be done at any time during the year, but must be before the final paper.
Reading: *The Teaching Gap*, James Hiebert and James Stigler, 1999, The Free Press.
Reflection: Select one idea from the *Teaching Gap* that you most agree with, and another that you disagree with or found surprising. Explain your positions, drawing from your experience with teaching or with lesson study.
2. Topic: An introduction to lesson study as practiced in Japan.
(Note: these were due 10/1 but are still being accepted, since people hadn't yet enrolled)
A Lesson is Like a Swiftly Flowing River, Lewis and Tsuchida (at www.lessonresearch.net)
Reflection: Which impact described in the article would you most like to achieve through lesson study? Why? And what do you think the challenges will be?
3. Implementation of lesson study in the U.S.
(Due date: December 1, 2003)
Does Lesson Study Have a Future in the United States? Catherine Lewis, Nagoya Journal of Education and Human Development, January 2002. (available at www.lessonresearch.net)
Reflection: Do you believe lesson study can be effective in the United States? Why or why not?

4. Learning from lesson study in the U.S.

(Due date: Feb 1, 2004)

"Lesson Study as a Model for Improving Teaching: Insights, Challenges and a Vision for the Future." Clea Fernandez and Makoto Yoshida, Teachers College, Columbia University, available on-line at <http://www.c-b-e.org/PDF/EyeoftheStormFernandez.pdf>.

Reflection: What experiences can you relate to in this article? What other challenges did you (or your team) face and/or what are you doing to overcome some of the challenges described?

Final paper: suggested length 5 pages

Due date: 6/30/04

Topic: Lesson Study and the Culture of Teaching in the U.S. and Japan

What is the impact of lesson study on the culture of teaching in the U.S. secondary school mathematics department? Use information gained from the readings and analysis of a local lesson study implementation to discuss what changes lesson study may be expected to bring to the profession of teaching in the U.S. Compare and contrast the role of lesson study as professional development in the U.S. and Japan.

Note: Some teachers may have an interest in using their final paper to discuss a particular aspect of their experience with lesson study in mathematics. This is acceptable, but please check with Jane Gorman in advance of writing, for approval of new topics.