

Developing Eyes to See Students: Using Lesson Study to Improve Teaching

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Adapting Lesson Study Project

- Three community college teams participate in four cycles of Lesson Study with support from experts at Education Northwest
- CCRC researches feasibility and faculty experiences and collects formative data on student learning and outcomes



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Lesson Study

Lesson study is a structured professional development model comprised of *activities* and *practices*

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Adapting Lesson Study for Community College Mathematics Instruction

Early Observations

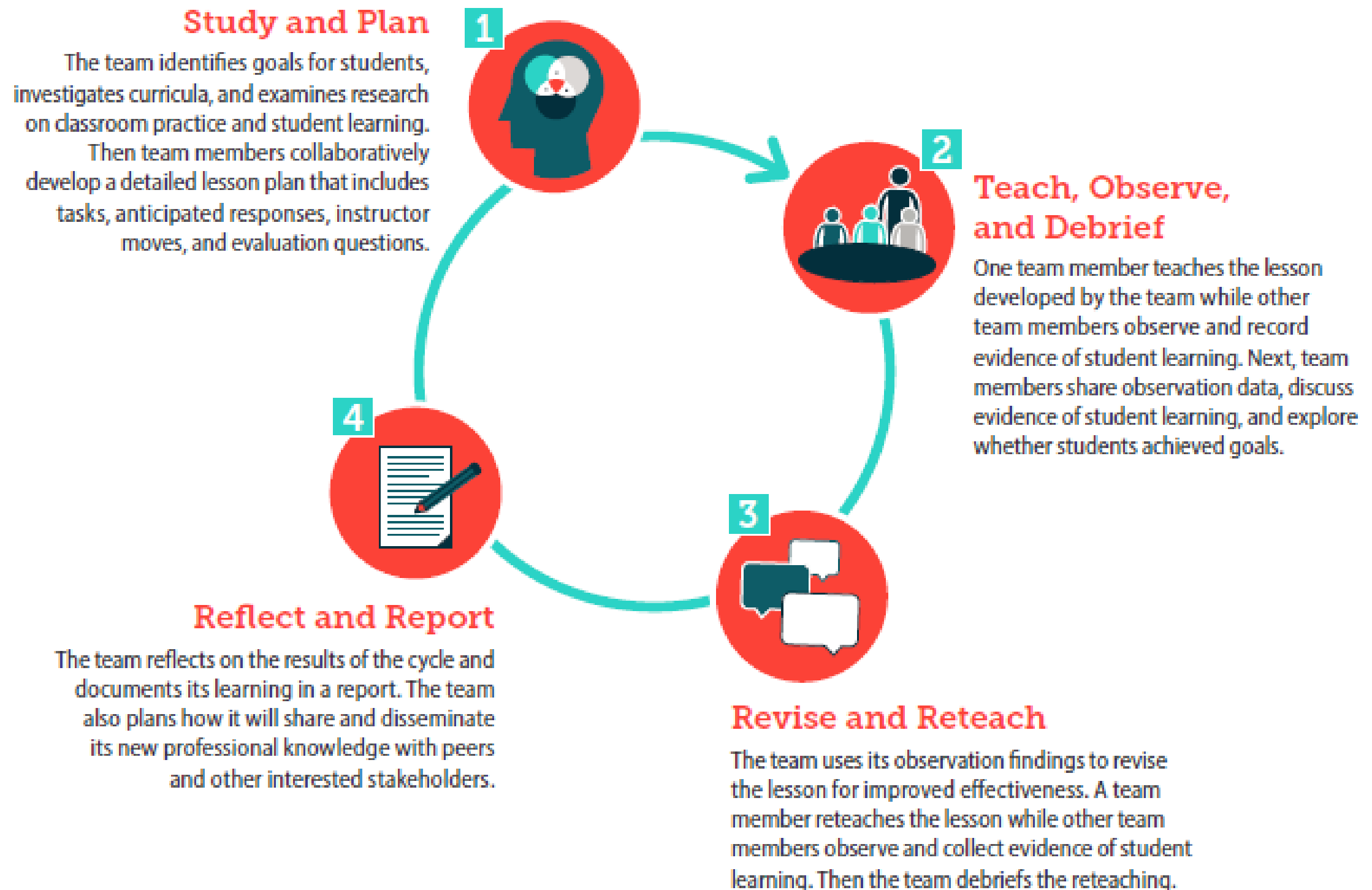
By Susan Bickerstaff, Jacqueline Raphael, Diana E. Cruz Zamora, and Melinda Leong

Community colleges have undergone significant reform in the past decade, much of it faculty-led. Yet there have been few documented efforts to systematically support faculty in improving teaching and learning. The Community College Research Center (CCRC), Education Northwest (EdNW), and three Oregon community colleges have embarked on a project, funded by the Institute of Education Sciences, to adapt and implement Lesson Study

Lesson Study (LS) is a structured, collaborative professional development approach that gives instructors a framework for actively investigating how to improve student learning in their classrooms. Despite evidence of LS improving teacher practice and student learning in K-12



Activities: Lesson Study Cycle



Activities: Ten Steps to Lesson Study



STUDY AND PLAN

- 1 Develop Collaboration Norms*
- 2 Establish a Research Theme*
- 3 Identify and Study the Topic
- 4 Plan the Lesson



TEACH, OBSERVE, AND DEBRIEF

- 5 Teach and Observe the Lesson
- 6 Debrief and Discuss Observation Data



REVISE AND RETEACH

- 7 Revise the Lesson
- 8 Reteach, Observe, and Debrief



REFLECT AND REPORT

- 9 Reflect and Report
- 10 Share and Disseminate Knowledge

* This step may not need to be repeated after the first cycle.

Sample Lesson Study Schedule

Timeline	Phase	Schedule
August – September	Study and Plan	Two-hour meetings on three consecutive Fridays
October	Teach, Observe and Debrief	Lesson is taught in Instructor A's section on a Thursday; debrief occurs for one-hour after class
October	Revise	Two-hour meeting on Friday
October	Reteach and Revise	Lesson is retaught in Instructor B's section the following Tuesday; debrief occurs for one hour after class
November	Reflect and Report	Team reconvenes for a final two-hour meeting

Three *Practices* to Realize the Benefits of Lesson Study



DEVELOP AND SUSTAIN A COLLABORATIVE TEAM

- Establish purpose and long-term goals
- Articulate and attend to collaboration norms
- Maintain an inquiry focus on student learning



STUDY RESEARCH AND APPLY EVIDENCE-BASED PRACTICES

- Explore research literature on student development of mathematical understanding
- Investigate evidence-based instructional approaches and practices



GENERATE AND SHARE PROFESSIONAL KNOWLEDGE

- Synthesize and document lessons learned
- Consider broader application for teaching practice
- Share knowledge with the field

What are the features of lesson study that encourage changes to teaching practice?

1. Grounds conversations about instruction in long-term goals for students
2. Focuses attention on students and their learning
3. Provides a supportive environment to experiment with something new

1. Long-Term Goals for Student Learning

- A lesson study team selects a **research theme** to guide their work over multiple cycles
- Research theme defines a broad long-term goal that is focused on improving student learning
- Sample research theme:
 - How do we build students' confidence in their mathematical reasoning and willingness to persevere in problem solving?

2. Attention on Student Learning

- Because the lesson was co-developed by the entire team, during the teaching, **observers focus on students, not the instructor**
- Questions to consider during the observation:
 - How do students interact with the mathematical tasks we developed?
 - What does that suggest about their understandings and misunderstandings?
 - What are the implication for instruction?



3. Supportive Environment to Experiment

Because of the [debriefing] protocol there's no finger pointing. Everybody [on the team] developed the lesson and everybody thought that this is the way that things should go, so you're off the hook with that. So you're taking a risk by having people watch your class, but at the same time it's not. So I think that that's a great thing about this is that you can kind of experiment with teaching without it necessarily being about judgment. - faculty member

Thank you!

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