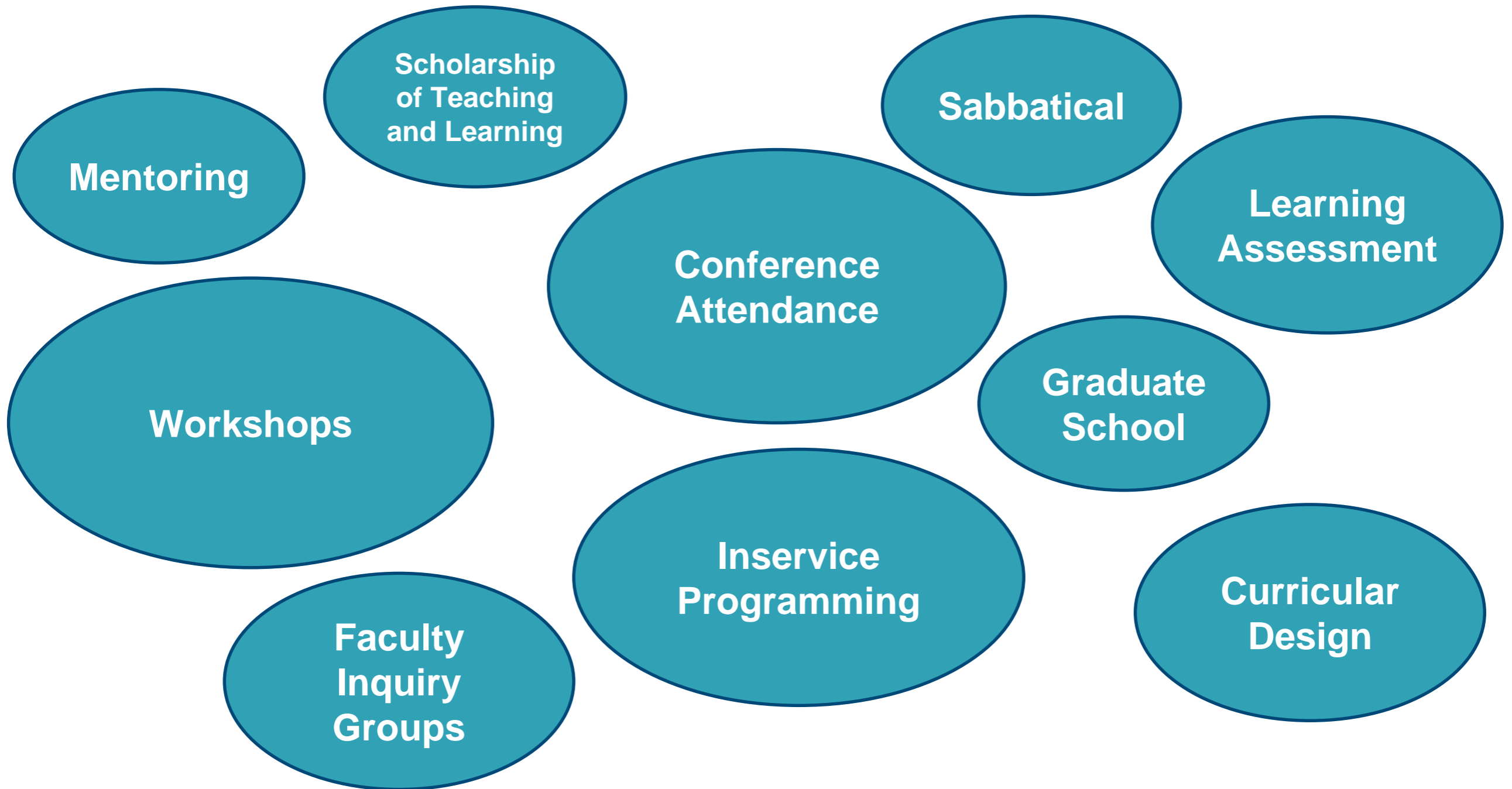


Using Lesson Study to Improve Teaching and Learning

Susan Bickerstaff, CCRC
Carrie Kyser, Clackamas Community College
Jacqueline Raphael, Education Northwest

What professional development opportunities are available to you?



Professional learning opportunities for math faculty at three community colleges

	Full-time	Part-time
More than five hours of PD on any topic in the past year	91%	48%
More than five hours of PD focused on mathematics instruction in the past year	55%	34%
Observe others teaching at least once each year	50%	11%
Received feedback on teaching from colleagues in the past year	37%	56%

Features of professional learning experiences that support instructional improvement

- Focused on specific student learning outcomes
- Provide opportunities for reflective practice
- Collaborative and sustained

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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What is Lesson Study?

Lesson Study

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

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Adapting Lesson Study for Community College Mathematics Instruction

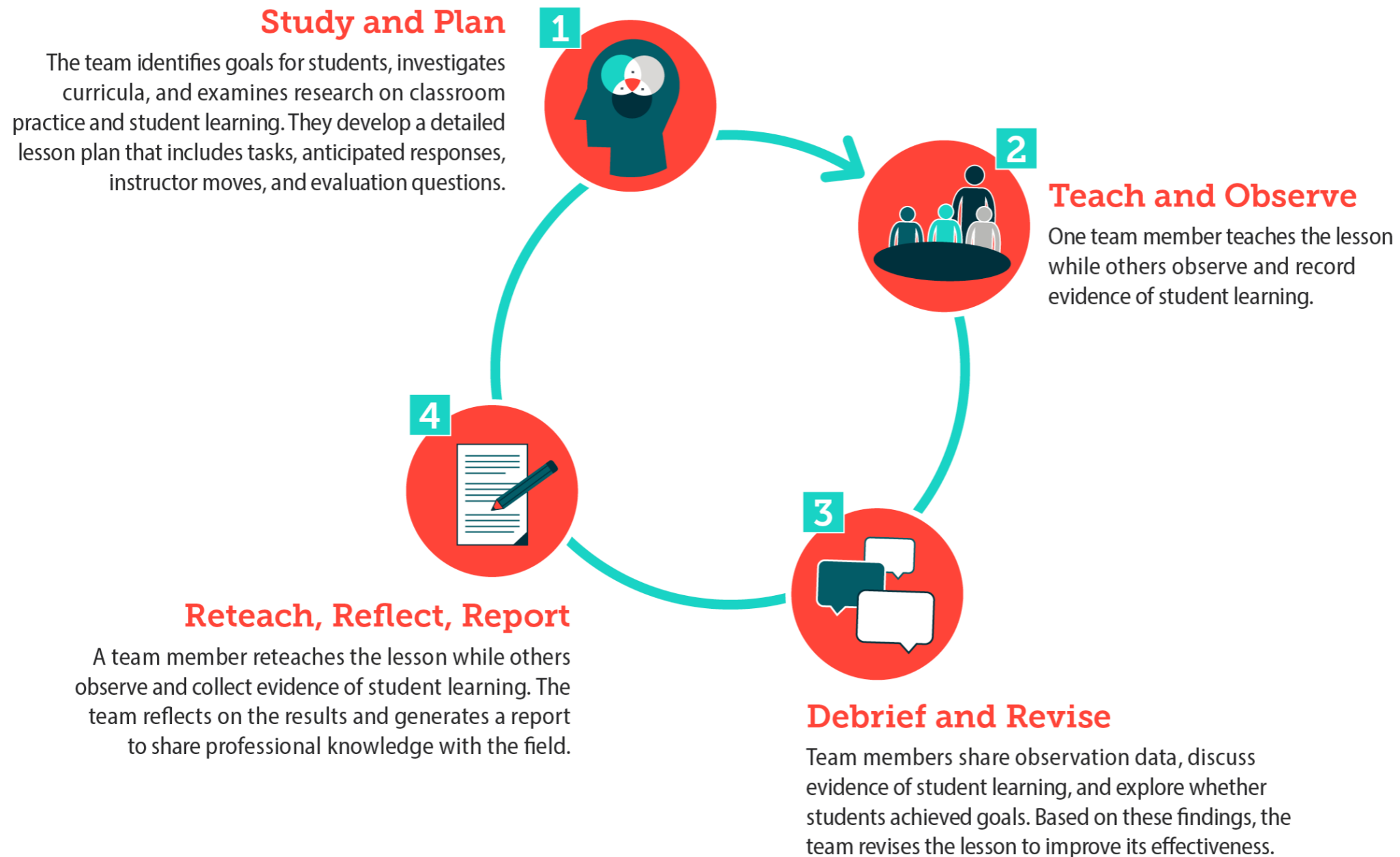
Early Observations

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



Ten Steps to Lesson Study

STEP	TIME
Study and Plan	
1. Develop collaboration norms*	30 mins
2. Establish a research theme*	1 hour
3. Identify and study the topic	2 hours
4. Plan the lesson	3-6 hours
Teach and Observe	
5. Prepare to teach and observe	1 hour
6. Teach and observe the lesson	1-2 hours
Debrief and Revise	
7. Debrief and discuss observation data	1 hour
8. Revise the lesson	1-3 hours
Reteach, Reflect, Report	
9. Reteach, observe, and debrief	2 hours
10. Reflect and report	1 hour

Lesson Study Implementation Practices

1. Develop and Sustain a Collaborative Team

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



Lesson Study Implementation Practices

2. Study Research and Apply Evidence-Based Practices

- Explore research literature on student development of mathematical understanding
- Investigate instructional approaches aligned with evidence-based practice



Lesson Study Implementation Practices

3. Generate and Share Professional Knowledge

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



Now you try it!

Lesson Study Simulation

- In groups of four, designate one “observer” and others as “students.”
- While students discuss and work on the task, the observer takes notes on how students use the materials and the reasoning they employ.

Task Prompt

Let's explore the following statement:

The wealthiest 20% in American own 90% of the wealth.

Task Prompt

Model with your pennies:

.... if wealth were distributed equally.

... if wealth were distributed the way you think it should be.

Debrief the Lesson



- First, share observational data without opinion or commentary
- Then reflect on to what extent the goals of the lesson were met and ideas for strengthening the lesson.

Can lesson study be feasibly implemented in community colleges?

Challenges

- Perceptions of “what counts” as professional development
- Norms of independence, competitiveness, autonomy, and privacy
- Priority of subject area expertise
- Lack of common language to discuss teaching

Benefits

- Structure of Lesson Study helps to develop that *language* to discuss teaching
- Frameworks and protocols create safety and inclusivity
- These conversations lead to discussions of *purpose* and *value* of content and pedagogy
 - Issues that are particularly critical for math instructors to explore!

Thank you!

bickerstaff@tc.edu

carriek@clackamas.edu

jacqueline.Raphael@educationnorthwest.org

 ccrc.tc.columbia.edu  CommunityCCRC  CommunityCCRC

 ccrc@columbia.edu

 212.678.3091