

To what extent do you agree/disagree with each of the following statements?

(Circle your answer)

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
a. I learned <i>mathematics</i> more deeply using the collaborative planning technique.	SD	D	U	A	SA
b. Working with others allowed me generate more models and representation to illustrate the mathematical concept.	SD	D	U	A	SA
c. Individual planning allowed me to think more deeply about the mathematical concept.	SD	D	U	A	SA
d. Collaborative planning allows more time for conceptualizing and modeling mathematical ideas.	SD	D	U	A	SA
e. I see the value of planning a lesson collaboratively.	SD	D	U	A	SA
f. The 4 column planning format allowed me to consider other aspects that I did not consider with the traditional format.	SD	D	U	A	SA
g. Anticipating student responses is a critical component to feeling prepared and ultimately good teaching.	SD	D	U	A	SA
h. Collaborative planning seems time consuming and not worth the effort.	SD	D	U	A	SA
i. Collaborative planning seems time consuming but well worth the effort in terms of teacher gain and student gain.	SD	D	U	A	SA
j. I will try to use the 4 column format of lesson planning in my future teaching.	SD	D	U	A	SA

Appendix A: Survey on lesson planning process

What are the most important components of the lesson planning process?

What are some of the considerations you make as you plan for mathematics instruction?

What resources do you use to plan for mathematics lesson?

How do you make sure your lesson is clear and that your explanation or illustrations are understandable to students?

What do you gain most from the lesson planning process?

Appendix B: Post survey questions

Post Lesson Study Survey Questions

1. Describe your experience with the 4 column lesson plan.
2. Which columns were most helpful, and in what way?
3. Which columns were most difficult to construct? Why?
4. How does creating one of these 4 column plans differ from a traditional plan used like the GMU lesson plan format?
5. Where is the main focus in a traditional plan such as that of traditional format?
6. Where is the main focus in the 4 column plan?
7. What might be differences for you as a teacher between using the 4 column plan or a traditional single column plan?
8. What might be differences for your students between using the 4 column plan or a traditional single column plan?
9. Explain how you feel about collaboration on lesson plan writing (helpful or distracting)?
10. Explain how your practice might improve differently using the 4 column than traditional plan.
11. Think of a lesson you have taught. How did the individually planned lesson differ from the collaboratively planned lesson?

The phrase *pedagogical content knowledge* was introduced by Shulman (1986, 1987) to refer to the ability to represent important ideas in a way that makes them understandable to students. Pedagogical content knowledge is what enabled teachers to translate complex or difficult ideas into concepts that students, as novices, could grasp. Shulman was interested in the use of metaphors and other devices to explain, illustrate, or illuminate important substantive ideas. Pedagogical content knowledge depends heavily on conceptual understanding, of course, for a good metaphor is one that captures the essence of the original idea.

Which format of lesson planning helped you gain more pedagogical content knowledge? Why?

Survey 2

1) How do you feel your knowledge of Lesson study will impact your student teaching experiences?

2) How have you found the following elements of the 4-column plan useful?

column 2 detailing student response and questions

column 3 detailing teacher response

column 4 detailing objectives and assessments

4-column structure

Revision of plans

Reflection

Collaboration

