Japanese Lesson Study as a Form of Action Research to Improve Discipline Literacy

Irina Falls and Rita Hagevik
The University of North Carolina at Pembroke

Abstract

This mixed-methods study investigated the teachers’ perceptions of participations of a yearlong Japanese Lesson Study professional development project on improving the teaching of Disciplinary Literacy. Analysis of the middle school teachers’ reflections, surveys, and interview data suggested that Lesson Study provided specific traits, such as unique strategies to collaborate, constant focus on student learning behaviors, specific ways to plan and observe how lesson plans are taught, and repetitive cycles, that differentiated it from other forms of Action Research. Through the thus defined features of Lesson Study (LS) as a very special form of Action Research (AR), the data supports Lesson Study’s potential of becoming a sustainable, continual, context-based form of professional development for teachers to use when implementing local and/or statewide policy changes.

Introduction

Objectives
- The study focused on the defining characteristics of LS that make it unique among other forms of AR.
- Conceptualization and classification of LS revealed that it is a very structured form of AR requiring specific team activities for research, decision making, implementation, and reflection.

Theoretical Framework
- The LS method of practitioner inquiry is based on a teacher-generated problem around student learning.
- The ideal attributes of effective professional development are perfectly aligned with the LS model:
  - intensive, ongoing, and connected to practice;
  - focus on student learning and addressing the teaching of specific curriculum content;
  - aligned with school and district improvement priorities and goals;
  - built upon strong working relationships among teachers;
  - engagement in social constructivism and reflection (see figure 1 below).

Participants
26 middle school teachers from 2 school systems in Southeastern USA:
- 15 English Language Arts (ELA) and Social Studies
- 6 Math teachers
- 5 Science teachers
- Ethnic distribution:
  - 19% were African American,
  - 8% Native American
  - 73% Caucasian
- Gender:
  - 35% males
  - 65% females

Procedure
150 hours of Professional Development during the school year
1. During the one week summer institute they learned the three goals of the project:
   - Strategies to teach Disciplinary Literacy (DL);
   - Increase use of mobile devices and teaching apps;
   - Learning the Japanese Lesson Study form of PD.
2. Lesson Study cycle using “practice lessons” focused on what to observe and
   - Interactive online module focused on teaching methods for DL.
3. LS cycles facilitated by LS trainers. The teams formed across schools and around grade levels in one district that had only ELA teachers, and around subject in the school district with math and science teachers (see fig. 2 & 3).

Data analysis

Data analysis (continued)

Results
The results of both quantitative and qualitative data are grouped by research questions below.

Table 1: Select survey responses about the usefulness of the DL strategies in the final survey (N=26)

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What were the teachers’ perceived professional benefits for participating in a professional development through LS?</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Are the teachers’ perception of using LS as a form of practitioner inquiry and continuous form of professional development?</td>
<td>25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Were there any changes in the teachers’ beliefs and perspective on their practice?</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2: Select survey responses about the usefulness of the LS model of practitioner inquiry and professional development in the final survey (N=26)

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What were the teachers’ perceived professional benefits for participating in a professional development through LS?</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Are the teachers’ perception of using LS as a form of practitioner inquiry and continuous form of professional development?</td>
<td>25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Were there any changes in the teachers’ beliefs and perspective on their practice?</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Research Questions

1. What were the teachers’ perceived professional benefits for participating in a professional development through LS?
2. Are the teachers’ perception of using LS as a form of practitioner inquiry and continuous form of professional development?
3. Were there any changes in the teachers’ beliefs and perspective on their practice?

Discussion

- Teachers’ instructional beliefs, perceived benefits, and reported effectiveness of their practice changed remarkably after being involved in a yearlong LS form of AR and PD.
- LS requires the teachers to plan the lesson from the students’ perspective, process through which teachers discuss their beliefs and assumptions about student learning and identify the components of classroom instruction that promote student learning based on the data collected from their own students during the research lesson (Lewis, 2005; Lewis & Hurd, 2011).
- LS requires the teachers to plan the lesson from the students’ perspective, process through which teachers discuss their beliefs and assumptions about student learning and identify the components of classroom instruction that promote student learning based on the data collected from their own students during the research lesson (Lewis, 2005; Lewis & Hurd, 2011).

Future Research

- Study the implementation of LS for several years to examine the effects and sustainability of such a continuous form of context-based professional development.
- Conduct comparative studies of both LS and other forms of AR to distinguish differences and similarities.

References


Acknowledgments
Funding for this project was received through NC QUEST (North Carolina Quality Educators Through Staff Development and Training) Title II-A: Improving Teacher Quality State Grants awarded through the University of North Carolina at Chapel Hill, 2015.