

## Making Sense of International Variations in Lesson Study and Lesson Study-like Practices: An Exploratory and Conceptual Perspective

Brahm Norwich, *University of Exeter*

### Introduction

Though Lesson Study (LS) originated in Japan as a professional development process, its historical conceptual influences are also international. In the last two decades there has been growing interest and uptake of various versions of LS in various countries. LS is usually defined as a process of professional collaboration as a means of continuous improvement of teaching practice. For example, Lewis, Perry and Murate (2006) defined LS as a ‘large family of instructional improvement strategies’ characterised by ‘observation of live classroom lessons by a group of teachers who collect data on teaching and learning and collaboratively analyse it’ (p.3). Whether learning studies which involves the use of variation theory to inform the study of lessons is part of this family is one consideration. But, how other group problem-solving, professional development approaches and teacher research practices, which have different historical origins, connect to LS is less clear. The aim of this paper is to examine the range of variations within lesson study in relation to three related traditions i. teacher research approaches, such as action research, ii. professional development models, such as professional learning communities and coaching, and iii. group problem-solving approaches, used by education support services.

### Questions:

1. How can lesson study be conceptualised in relation to other practices such as collaborative problem solving, professional development approaches and teacher research practices?
2. Can there be an international definition or classification of lesson study practices?
3. What kind of definition / classification would this be?
4. What could be the elements of any such classification?
5. Does it matter if there cannot be such a definition / classification?
6. Can a definition / classification be useful in developing lesson study-like practices?

### Methods:

Relevant literature in the lesson study, learning study, professional learning communities, teacher research and group problem-solving approach literature will be searched and analysed in terms of a starting conceptual framework. This framework will cover these broad dimensions: i. settings in which the practices take place, ii. the purposes of the practices, iii. the specific procedures involved in the practice and iv. the study methodology and knowledge bases used.

### Analysis

The analysis will show how the four starting dimensions can be used to make sense of variations within lesson study and its relationship with learning study, on one hand, and with lesson-study-like practices, on

the other. Though the analysis is on-going, at this stage it shows that specific sub-dimensions within each of the four starting dimensions are critical to understanding the specific features of these practices that have different origins and assumptions.

#### Conclusions

The paper will provide details to illustrate the value of this exploratory and conceptual exercise. It will present an argument with evidence that there can be a working framework, but not a definitive classification, of features of collective collaborative development practices of which lesson study is a central part.

#### Reference:

Lewis, C., Perry, R. and Murata, A. (2006) How should research contribute to lesson improvement? The case of lesson study. *Educational researcher*, 35(3), 3-14.

Abstract Number: 20157

## Adapting Lesson Study and Teaching Mathematics through Problem Solving: Tensions, Dilemmas, Opportunities

Mineria A. Se, *Sta. Lucia High School*

Julie Reyes, *Sta. Lucia High School*

Erlina Ronda, *University of the Philippines*

This paper reports the tensions, dilemmas, and opportunities for learning in adapting lesson study (LS) and the teaching practices required to teach mathematics through problem solving (TMtPS). To structure our analysis and reflection about our lesson study experiences we use Engestrom's (1987) Cultural Historical Activity Theory (CHAT) as framework. The framework enabled us to see lesson study as an activity system where multiple interacting factors shape the learning goal of the teachers participating in the activity. Inherent to this framework is the notion of contradiction as sources of innovation or as opportunities for learning. We conceptualize these contradictions as tensions and dilemmas. Lesson study and TMtPS were introduced to us by the National Institute for Science and Mathematics Education Development, University of the Philippines (UPNISMED) from school year 2010-2012. We continued doing LS and tried to structure our lessons based on TMtPS on our own even after the project ended. In this paper, we report how 1) the research lesson, 2) the 'rules' of LS and TMtPS, 3) the school community and the policies of the Department of Education, and 4) our other roles in the school and during LS itself, created tensions and dilemmas and opportunities for learning for us. Our data sources for this study were videos of our presentations in a conference organized by UPNISMED in 2014 where we presented our research lessons and our lesson study experiences. We also developed questionnaires given to our co-teachers who participated in LS and who are still involved in the current LS activity of our mathematics department. We also interviewed selected teachers. This presentation is from our own perspective, that is from teachers. The third author of the paper was part of the project team from UPNISMED that initiated us to LS and TMtPS and has introduced us to the ideas of activity theory/ system to help us structure our reflection and our making sense of the LS activity that we are doing. In the presentation, we will present scenarios on how tensions were overcome, the dilemmas encountered and the many doors of opportunities opened for us. We hope to contribute towards understanding the complexity of adapting lesson study in contexts similar to public school in Philippines.