Analysis for Designing International Collaborative Learning Based on the Dimension of Horizontal of Activity Theory

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Abstract: This study aims to investigate how a teacher adjust lesson objective in the sociocultural context in "international collaborative learning." The author applied the dimension of horizontal of activity theory viewpoints as a framework of analysis on the relation of people's activity in "international collaborative learning" in order to investigate how lessons work while considering the environment surrounding teachers. The author collected data in "international collaborative learning" between Japan and India schools. The author employed classroom observations implementation and interviews to teachers for collecting data. As a result of data analysis based on the dimension of horizontal of activity theory, the author identified three factors for designing "international collaborative learning" where mutual activity collides.

Keywords: activity theory, international collaborative learning, sociocultural context, teacher education

RESEARCH BACKGROUND

"International collaborative learning" in elementary school has become the attraction in Japan under the aim of nurturing global citizenship (MEXT 2009). MEXT encourages students not only improvement of English, but also to collaborate with others and solve the faced problem with others through collaborative learning. In addition, "International collaborative learning" enables students to learn by bringing them into contact with other cultures. The research on "international collaborative learning" described as a lesson design and student's learning activity in the classroom (e.g. Horita & Nakagawa, 2003; Inagaki et al, 2006; Kishi & Kubota, 2011).

However, the lesson design of "international collaborative learning" can be directly linked to an organization from outside of school. When implement "international collaborative learning" in school, two or more organizations engage in collaborating between schools. For example, it is a board of the education, organization that tries to urge international collaboration, NGO and NPO. In other words, it can be said "international collaborative learning" is horizontal activities in a different organization and community, not only the activity between classrooms, teachers.

THEORETICAL BACKGROUND

This section describes the theoretical background for understanding of horizontal activities in "international collaborative learning."

Expansive learning suggested by Engeström (1987) provides the basis of case studies and uses an analytical framework by introducing a descriptive model of the activity. In addition, Engeström developed an activity system model. Activity system has the following six components: subject, tools, object, community, rules and division of labor. Activity system is the mediated action between subject, tools, and object of an activity. At the same time, the community that is the social group to which the subject belongs will share the explicit and implicit rules and division of labor that are the tasks of the subject participating in the activity (Engeström, 1993). The outcome is the results attained through collaboration with other subjects and components in the activity. Each component related to each other. An activity system can focus on all aspects of targets' people in an activity.

Activity theory takes two interacting activity systems as its minimal unit of analysis, and its concept is boundary crossing (Engeström et al., 1995; Engeström, 2001). It has been developed to help understand the interaction between these activity systems, the multiple perspectives and the 'multi voicedness' inherent in these systems (Engeström, 2001). Boundary crossing in activity system is never a special thing in people's daily life. They always relate to two or more activities (Kagawa, 2008).

"International collaborate learning" applied about boundary crossing. In order to achieve the objective of a lesson, a teacher utilizes ICT and connects the classroom to overseas. The teacher will be involved in the others of the inside and outside of a school and will spread out an activity.

However, in the process of "international collaborate learning," it is not clear how a teacher adjusts an educational objective each other, or shares each purpose with the organization of the inside and outside of a school. In short, it can become the essence for designing "international collaborative learning" by clarifying what has happened in horizontal relation.

RESEARCH OBJECTIVE

In this study, the author attempted to clarify what relation formed between teacher and organizations in "international collaborate learning" by using the horizontal dimension of activity theory.

OUTLINE of THE CASE STUDY

Elementary school in Japan and Bodh Gaya, India conducted "international collaborative learning" in April 2012 to March 2013. The objective of the "international collaborative learning" for Japanese school (Kansai University Elementary School: KUES) is to take action for international cooperation. For that objective, the teachers in KUES aimed at understanding situations of India, such as a living and learning environment through an argument with students in India.

In India school, named Niranjana Public Welfare School (NPWS) in Bodh Gaya, by addressing local issues, concerning education, medical care, orphans, social work, etc. NPWS has received support from NPO in Japan. Therefore, NPWS came to have contact with KUES through the NPO.

The teachers in KUES have some experience of international collaborative such as America, Australia,

Philippine and Cambodia. From those experiences, they recognized that the importance for a lesson is to be connected not only with a partner but also with various organizations. They had contacted with NPO, university students and researchers from the beginning of a lesson.

RESEARCH METHODOLOGY

Data collection

The author employed qualitative research methods. The first data was an interview of Japanese teachers. The main research question was: How did you design the "international collaborate learning," and involve in other organizations? The second data was classroom observations implementation in India from August 2013. The authors recorded the lesson practices in field notes and video. The third data was the meeting memo, mail, and schedule in relating with a lesson. These 3 data were collected from April 2012 to March 2013.

Data Analysis

The author analyzed these data in three phases. First, reducing the transcript to information relevant to the research topics. Second, the author did open coding phase-by-phase. Third "the coded data" applied to the activity systems and examined.

FINDING and DISCUSSION

The author analyzed the data and found the teachers had three features in the horizontal dimension.

Indirect crossing in activities

The teachers had indirectly accessed to the activity of other organization in order to achieve the purpose of the lesson. For example, the teachers visited NPWS in India in order to adjust for the purpose of "international collaborative learning." Moreover, the teachers had inspected the information that was useful for activities of international cooperation in participating an activity of NPO in Japan, which knows NPWS.

Indirect crossing for reflection

The teachers reflected about the lessons through indirect crossing in activities of other organization. The case study in this study aimed at not implementing learning activity in a classroom but the lessons for to take action for international cooperation. The teacher concerned with other organization and organizations, and invited the lecturer from out side of school for lessons, in order to know what has happened in India and NPWS. While learning their activity or hearing the information about India and NPWS, teachers got to know that there were people who are working with the same purpose, and understood own activity. In other words, the teacher has recognized the common feature and difference between the activity of other organizations, and own learning activity. The relation by other organizations urged making a teacher conscious of the domain of the international cooperation activities that can apply to lesson in a school.

Creation of new activity in school

The teachers changed a purpose and activities of lessons through indirect crossing in activities of other organization. For example, the teachers had invited the representative of NPO and the university student who has visited NPWS as a visiting lecturer. The teachers considered they become the resource of study for KUES students to advance the study. Moreover, it makes them to the resource of KUES students' study, as well as the university students and KUES students cooperated to make the educational material for NPWS student, and presented the result by cooperation to the exhibition organized by NPO. Furthermore, KUES student proposed that they wanted to have a flea market for NPWS student in order to get a fund for improving the learning environment of NPWS student. KUES teachers and students got cooperation of school and students' parents to make goods to sell in a flea market. The teachers did not plan these kinds of activities when the beginning of "international collaborative learning." Although the teachers involved them in lessons and create a new learning activity together.

Those new activities are an example of boundary crossing in "international collaborative learning." However, although those new activities were boundary crossing, the author did not clarify that the difference in activities between teacher and each organization.

CONCLUSIONS and FUTURE DIRECTION

In this study, the author attempted to clarify what relation formed between teacher and organizations in "international collaborate learning" by using the horizontal dimension of activity theory. The author described the teachers had three features in the horizontal dimension: indirect crossing in activities, indirect crossing for reflection and creation of new activity in school.

As a future direction, the author will research the difference in activities between teacher and each organization because both activities do not cross beneficially in a horizontal dimension.

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