

THE SPIRIT OF LESSON STUDY

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It is commonly believed that experience is the best teacher for life. However, this belief will come through if one passionate to learn from their experiences. For teachers, including Mathematics teachers, able to learn from teaching experiences, either their own or from the others, will certainly be advantageous for their self in improving profesionality in teaching.

A forum for teachers to share and learn together from various experiences gained while designing a lesson plan up to conducting the lesson in the classroom, has been known as Lesson Study. Spirit underlying this activity is to learn from, about, and for better quality of learning.

Keyword: Lesson Study

Introduction

Most of us have heard an idiom saying that experience is the best teacher for life. However, whether one's experience can be meaningful for him/her, it depends on his/ her ability and will to learn something from the experiences he/ she gets. There are people who have many experiences but they are unwilling and unable to learn something from their experiences. It is also found that there are people who are very skilled to behave to each of their experience and bring it into something meaningful for them.

For teachers, including mathematics teacher, will and ability to learn about the students, the core materials and the teaching learning processes, either their own or from the others, will be advantageous for them in improving their competency as professional teachers. A forum that can be exploited by the teachers to share and learn together from those various experiences has been known as Lesson Study activities.

The following discussion explains how Lesson Study activities used by teachers as means of sharing the learning experiences. It also clarifies the spirit containing in the Lesson Study activities.

Lesson Study

These are some opinions about the definition of Lesson Study. According to Stigler and Hibert, quoted by Sparks (1999),

Lesson Study is a collaborative process in which a group of teachers identify an instructional problem, plan a lesson (which involves finding books and articles on the topic), teach the lesson (one member of the group teaches the lesson while the others observe), evaluate and revise the lesson, teach the revised lesson, again evaluate the lesson and share the results with other teachers’.

Almost similar to above definition of Lesson Study, Fredkin (2005), in his article, defines that “Lesson Study is a process in which teachers jointly plan, observe, analyze, and refine actual classroom lesson called research lesson”, while the article downloaded on <http://www.nwrel.org/msec/lessonstudy/overview.html> mentions that “Lesson study is an ongoing professional practice in which teachers collaborate to plan, observe, and refine a lesson”.

According to those definitions of lesson study, it is summarized that Lesson Study is **collaborative activities** of a group of teachers who are doing together to: (1) plan the steps of learning, (2) choose one member of the group to practice teaching the planned lesson while the others observe it, (3) evaluate the implemented lesson, (4) improve the formerly plan, (5) again practice teaching the lesson, (6) reevaluate the implemented lesson, and (7) share the experiences and the invention of the evaluation to other teachers.

According to Lewis (2001), in USA, Lesson Study is well known as a way to improve the lesson in the classroom. However, the educators in Japan see it in a wider way. They observe that Lesson Study is not only a means to learn the lesson materials, the pupils, and the teaching method but also a means to bring the educational vision into the class. Richardson (2004), in his article *Lesson Study: Teachers learn how to improve instruction*, explains some important things related to the Lesson Study. One of them is that the teachers learn how to improve the lesson through the Lesson Study. He excerpted Chaterine Lewis’ statement stating that test and the results of students’ work may contribute information about the things that should be increased while Lesson Study, all at once, explain how to increase them.

How the activities of the Lesson Study can be used by the teachers as a means to share and learn then it can be seen from the spirit contained in each step of these following Lesson Study.

Spirit of Lesson Study: learn from, about, and for better quality of learning.

The followings are the suggested steps to implement the Lesson Study in order to run well. Most of these ideas were taken from the articles of Lesson Study from Macomb Intermediate School District. (2005). Those also pay attention to the definition of the Lesson Study discussed in the previous section.

a. Planning

Lesson Study activities are started with forming Lesson Study group or team. Lesson Study team can be formed on the school, sub district, or regency level. The formation depends on possibility of the feasibility of the required tools and infrastructures. The idea that proposes the team formation can be presented on MGMP meeting. It also can be initiated by a teacher, a principal, a department head or an expert from an Institute of Higher Education. Each team consists of 4 to 6 subject teachers from various schools that have similar level of education. Suggested that the team members are various in age, education, and teaching experiences in order to compose the process of sharing and learning together be advantageous for each team member.

After forming the team, it is very significant to as hold a meeting aimed to make the same perception of the Lesson Study immediately. Initiator of the team formation should be able to explain clearly to the members about the meaning of Lesson Study. Each team member then gives opinion about the Lesson Study. Reconciliation of the definition of Lesson Study can be easily downloaded on the web page. The scope of discussion should conclude the definition of Lesson Study, the objectives of the Lesson Study implementation, and the advantages of joining the Lesson Study activities for each team member.

After getting similar perception of the Lesson Study from all team members, the next step is determining focus of the Lesson Study activities, especially the activities related to the core materials of lesson that will be focused on Lesson Study activities. Selection of the core materials or topics can be based on the team members' experiences, all this time.

The selections are based on what core materials which most students feel difficult to learn or on which core materials that the teachers often have difficulties to explain to the students.

Intensive discussion proposed to determine the focus of Lesson Study activities could be started by registering all daily learning problems faced by the team members. Do the teachers have difficulties in developing syllabus and doing evaluation, starting the lesson, determining the method, choosing and using the media, teaching the concept, looking for contextual problems, answering questions on the book, making questions by their own selves, arousing the students' learning motivation, making tasks for the students or managing the class? Those listed problems are selected and put in the right order based on the priority scale in solving problems. Then, team members find solution to solve those problems. By doing those early steps, each member will learn from the real lesson problems. The spirit containing in this planning stage is that the teacher will **share and learn together from the lesson they do**. The experiences are obviously either their own or from the others.

After determining the core materials, the method, and the media, the next step is preparing the required lesson and research instruments. The mainly required lesson instruments are Lesson Plan (RPP), worksheets, media, and research instruments. Research instruments mainly needed are observation sheets, or, if it is required, it can be added with questionnaires of students' responses. The required supporting instruments of the Lesson Study are microphone and video camera. Observation sheets contain the description of the aspects being observed. For evaluation/ reflection, documentation during the learning process becomes the important thing.

Beside the lesson, research and supporting instruments mentioned in the previous discussion, the things that are important to be agreed before the running the lesson is determining who will be the model teacher and which class will be used for the lesson. It is better if each team member has a chance to be a model teacher, at least once. Besides, the team should determine the class setting, position or place for the team members or other teachers to observe the learning process. The rules for the model and observer teachers also should be established.

b. Implementation and Observation

Underlying on Lesson Plan (RPP) formed by the team members, the model teacher implements the lesson in front of the class, while other team members observe the learning process. Since the purpose of the planned and implemented lesson is to assure the students' rights to study optimally, observation of the team members (observer teacher) are suggested to be focused on the students' learning activities by observing how students or students' group learn and share to learn.

In detail, the things suggested to be focused on the research are: whether there are communication and interaction between the teacher and the student, and among the students; whether the are students or students' group that are not involved in the learning process, do not comprehend the concept being taught, misunderstand in doing the tasks/ answering the questions given by the teacher, (if it is found that there are mistakes, those should be explained and the teacher should investigate causes of those mistakes), have mistakes in taking conclusion; and whether the bright ideas appear from the students or students' group in responding the teachers' questions.

Besides observing the students' learning activities, it is important to note the punctuality, the class management, and the attainment of the purpose of activity on each stage. If it is found that students or group of students have problems, the observer teacher should try to analyze the factors causing the unexpected students' learning activities.

Paying attention to the things being observed and analyzed by the teachers on the learning process, it is concluded that the spirit contained in this implementation stage is that the teacher can learn about the lesson from the concrete facts in the classroom through the Lesson Study activities.

c. Reflection

After carrying out the planning (*plan*), doing and observing the lesson (*do*), the next stage is reflecting or considering at the implemented lesson (*see*). The reflection session should be done son after accomplishing the lesson. It is done by examining the observation results of the observer teachers and the record of the learning process. Reflection in the end of the lesson will be very useful to improve the next lesson implementation on similar or different pupils. As the evaluation/ reflection materials, data are collected through the prepared observation sheets and the record of the learning

process. The video record should carefully catch the voice, gestures, expressions, and activities of teachers, students or students' group but the portion of recording the students or students' group should be more than the teachers'.

The reflection session is initiated by reflection of the model teacher. In this session, the model teacher give information about the students' condition; the implemented things that are not appropriate to the Lesson Plan (RPP) and their reasons; and the things being felt and thought during the lesson. After accomplishing the reflection session of the model teacher, the observer teachers then give suggestions to the model teacher. If it is possible, each observer teacher should give suggestion to the model teacher. Those suggestions should be based on the facts found in the learning process taking place.

After the observer teachers give suggestions, if it is required, the model teacher may give responses and explanation to those suggestions. If the equipment to play the video record is available, it is better to play the record in the reflection session. Then, the record is noted by all members in the reflection session. If they find some serious problem during the lesson, such as the teacher uses the wrong concept or almost all of the students have wrong understanding toward concept delivered by the teacher, the observer teacher are suggested to convey the observation results carefully in order not to mentally ruin that model teacher. It is better if the observer teachers or the reflection forum discuss the alternative solution for the existing problems. If it is required, they can also ask for help to the expert to formulate the steps for solving those problems.

By comprehending that the lesson study is a forum to share and learn for the teachers in order to get better quality of the lesson, the teachers can optimally guarantee each student's right to study. Therefore, spirit of this reflection session is to find out solution for the problems that appear during the lesson. It is aimed to have better preparation and implementation for the next lesson.

Although the spirit contained in the Lesson Study is to share and learn, by remembering that the teachers in our country are not accustomed to be directly criticized, it is suggested that the evaluation focuses on how the students respond the implemented lesson. Therefore, other observer teachers have to listen, observe, and note each student's response carefully and in detail. It is expected that the model teacher can take a conclusion for the implemented lesson according to the results of students' responses

evaluation observed by other teachers and from the recorded video. By paying attention on how the teachers learn, it is expected that the model teacher is able to identify his/ her own strength and weaknesses in implementing the lesson.

Not only the model teacher who is expected to find his/ her own strength and weaknesses on the lesson implementation, but also the observer teachers who are expected to learn something from these activities. If the observer teachers cannot be fully able to solve the problems or cannot give positive suggestions to the model teacher yet, they should be able to learn something from the observed lesson, at least it will be useful for improving the lesson in their own class. Thus, the reflection session containing the spirit which reveals that through the Lesson Study the teachers will share and learn together for establishing the better lesson.

Closing

Teachers are expected to be seriously able to comprehend the spirit containing on each step of Lesson Study activities. It is aimed to make the teacher be able to implement it with high commitment. Understanding that through the Lesson Study activities the teachers can share and learn from, about, and for better learning, it will be advantageous for growing, keeping, and maintaining the spirit in their own self to be willing to learn and always share their experiences of learning.

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