Revitalizing Lesson Study in Japanese High Schools through Redefining the Process

Terry Laskowski, Kumamoto University, Japan
Marc Waterfield, Buntoku Senior High School, Kumamoto, Japan

The Asian Conference on Education 2014
Official Conference Proceedings

Abstract

The study documents a group of teachers participating in a teacher-learning process in Japan known as ‘Jugyokenkyu’, referred to internationally as ‘Lesson Study’ (LS). Teachers participated in several stages constructing knowledge as they go through a cycle working in collaboration from planning and teaching a lesson to reflecting on the lesson. Social interaction is at the core of classroom inquiry as teachers build a lesson by actively collaborating at each stage of the LS process. LS originated in Japan as a method to facilitate professional development among teachers. However, in secondary schools, and especially in high school, where this study took place, opportunities for teachers to collaborate with peers is drastically lower in the actual implementation of LS in Japan. The purpose of this research project is to revitalize LS in high schools by specifically designing the LS process with an added emphasis on collaboration during the planning stages of a lesson. Qualitative data were collected in the following ways: post and pre-lesson planning stage meetings, classes including the demonstration classes and the actual research lesson were video-taped; interviews with the participants were conducted, and data were also gathered through the use of questionnaires and field notes. In this study, data from one teacher out of three who went through the LS process are detailed. Three themes emerged that depict professional growth resulting from Professional Knowledge Gain; A deeper Focus on the Learner and outcomes of the Demonstration Lesson.
Introduction

There has been a shift in teacher development recognizing the need for teachers to actively take ownership in their teacher learning and to do so collectively. Johnson refers to the change in teacher development as taking a “sociocultural turn” (2006). Citing the work of Lave and Wenger (1991), who depict teachers as working together in a context of shared experiences in a community of practice, Johnson writes, “The knowledge of the individual is constructed through the knowledge of the communities of practice within which the individual participates” (p.237). The sociocultural turn is premised on the view that cognitive development takes place in a socially mediated environment and can be seen in the work of Vygotsky (1978). He found that conceptual learning development in the individual occurs through social interaction within reciprocal inter- (external) and intra- (internal) psychological levels. Teacher learning, therefore, should be framed as a dynamic social activity that allows teachers to share their personal knowledge and experiences of teaching with each other for purposes of advancing their professional knowledge (Falk, 1994). Within an active and socially constructed teacher development framework, teachers are no longer passive recipients in their professional development. The failings of teacher training built on transmission of knowledge models can be seen in the comments of Freeman (1991) who had observed more than two decades ago that “models of teacher education…depend on received knowledge to influence behavior and do not acknowledge—much less encourage teacher learners to construct their own versions of teaching” (p.19). Fortunately, since Freeman’s claim, teacher development models such as action research (AR) have emerged as a means for teachers to be active in their own professional development.

Research, as summarized by Nunan (1993), is a systematic inquiry that engages the researcher in a process of data collection, analysis, and interpretation. He further adds, “…the distinction between AR and other forms of research is that in AR the research process is initiated and carried out by the practitioner” (p.42). Thus, AR in teacher development is applicable as a superordinate term to depict teachers doing classroom based research in a systematic way, and it is most effective when it is done collaboratively (Burns, 1999). Ideally, AR is conducted in a cyclical process as teachers work together through various stages to solve a teaching problem or puzzle, plan an intervention, implement the plan, observe, reflect and revise (Kemmis & McTaggart 1988, Wallace, 1998). However, perhaps because of the autonomous nature of teaching, AR is often not carried out collectively and has mostly been done individually (Burns, 1999).

Recognizing the importance of collaboration in teacher learning is precisely why a unique and well-established form of an AR teacher development system in Japan, called Jugyokenkyu, which translates to lesson study (Yoshida, 1999), has been gaining international recognition (Laskowski, 2011, Lewis, Perry, Hurd, & O’Connell, 2006). Lesson study (LS) is distinctly different from other forms of AR because teachers participate, collaboratively (at least in in principle in Japan) to build a complete lesson (Laskowski, 2009). In Lesson Study, teachers go through a clearly defined research cycle consisting of several guided stages from planning, teaching, and post lesson reflection discussions. The lesson becomes the focal point, and the overall aim of working on it together is to provide opportunities for teachers to share their personal and professional knowledge of teaching in order to further teacher
development. On the one hand, LS had gained prominence as a contemporary teacher development model internationally largely due to the way it is carried out in elementary schools in Japan as a collective or collaborative approach to teacher development. However in Japan, it has become static in secondary schools especially during the planning stages of the lesson where it is rarely conducted in a collaborative way.

This study attempts to revitalize collaboration in LS at one high school in Japan and reports on its findings. Specifically, the study looks at Japanese teachers of English (JTEs) in high school conducting a classroom based research project. The research was guided by the following question:

In what ways, if any, did going through a collaborative lesson study cycle shape the teacher learning of participating members?

In documenting the findings, we hope to empirically add to research on teacher-learning groups by reporting on the actual effects of teachers as they go through the workings of a teacher-research process. The study will first provide a background into LS and will detail the stages of the LS cycle.

Lesson Study

LS has been around for more than half a century in Japan, where it originated and is deeply rooted in the framework of teacher development. It is prevalent in almost all schools, and is officially supported at the national, regional, local and classroom levels. In fact because it is so ingrained in the educational culture of Japan as the form of teacher development it has hardly been written about in publications inside of Japan. That is, the norm of doing LS is so implicitly understood by teachers that no one saw the need to explicitly document the stages of a LS cycle and how they were relative to contemporary directions of teacher development which, as stated previously, have taken a sociocultural turn by placing an importance on collaboration with colleagues and teachers working in a community of practice exploring issues that arise in their particular schools. LS finally gained recognition when researchers from abroad began to take an interest in it after seeing LS at work in Japan and then documenting it in publications (Lewis, 1995, Stigler & Hiebert, 1999, Yoshida, 1999). It is from these studies that the merits of LS and a description of what a LS cycle entails began to take form.

A basic framework for a LS cycle occurs in the following main stages (Lewis, 2002):

1. Set a goal for the lesson; 2. Design the lesson; 3. Teach the lesson (referred to as a ‘research lesson’); 4. reflect on the lesson; 5. revise the lesson (if possible).

According to this LS cycle outline, the formation of a lesson is at its core. Therefore, a reasonable question would be: Why focus on the lesson? Prabhu (1990) writes that the underpinning of a lesson is the teacher’s method, and it is the lesson that guides the teacher in determining the activities that are to be implemented and in what order they
are to be presented. In a sense, it is an auxiliary outline of the journey the teacher goes through during a course. The lesson is an outline of the process in which the teacher plans to follow in a particular class, and it is also a part of a sequence of plans that make up the entire course. In short, it is at the centre of what a teacher does before, during and after a lesson is taught.

Regarding the above framework of the LS cycle, it is important to note that it is classroom focused as it goes from setting goals to implementing them in practice. The point we wish to make here is that this process is collaborative in nature. During the outset of a LS cycle, which takes place over a period of several meetings, a group of teachers, for example teaching the same grade in an elementary school or the same subject in a secondary school join a research team. In addition a more knowledgeable other (MKO) from a university, for example, may sit in performing the role of a facilitator, and immediately begin collaborating by deciding on the goals of a lesson. Long-term and short-term personal professional development (PPD) goals may also be addressed. Then, participants begin to work on designing a lesson. Although only one or sometimes two teachers, in the case of lessons which are team taught, are commonly selected to actually teach the research lesson to their students, all of the participating members share in the formation of the lesson.

At a quick glance, it may seem that LS requires a lot of effort just to produce one lesson. However, it is not the final product of the lesson that is so important, rather it is the process of forming the lesson together that has the most pedagogic value in teacher learning. If we agree that social learning provides a rich context for cognitive development, then the planning stages of a LS cycle are central to the process because teachers are given the opportunities to share their knowledge and experiences with each other. Moreover, having all of the members involved in the planning of the lesson allows them to take more of a critical interest in the lesson as they become stakeholders in its formation. On the day of the research lesson, participants, other teachers from the school, and occasionally even teachers and administrators from other schools come to observe the class. All participants, collaborative teachers (CTs) and observers then attend a reflection session to provide feedback on the lesson. Finally, if the schedule allows, the lesson can be revised for implementation in a future class.

The coming together of a group of teachers at a local school working in unison, setting goals, planning, teaching and reflecting on a research lesson in practice is what impressed the visiting researchers. It is important to note that what the researchers saw were mostly LS research lessons carried out by elementary school teachers in Japan. This is noteworthy because elementary school teachers were conducting LS mainly in collaboration, which is what the researchers focused on when they introduced LS abroad. However, perhaps because of the autonomous nature of secondary school teachers who teach specialize subjects, it seems that, at this level, LS is not collaborative at all. Although this claim needs to be further investigated, according to the observations of the authors who have a combined experience of over 30 years of observing research lessons in Japan, including the school where the study took place, a typical form of the LS cycle at the secondary school level is as follows:
Outline of the Original LS Cycle used by English Teachers in this School

In the above, the main teacher (MT), referred to as such to signify that there are almost no other roles given to other teachers to assist in planning the lesson, is given the responsibility to make the whole lesson on his/her own. This causes a lot of stress on teachers to perform as well as increasing their already busy work load, reducing their motivation to participate in LS. In the second stage, the MT teaches the lesson and other teachers (OTs) come and observe. In the third and final stage, OTs offer feedback, but it should be noted that there are no participating or collaborative members of a research team to offer their critical insights further sharpened because they are stakeholders, or to engage in a meaningful dialog over feedback from other visiting teachers outside of a research team. Therefore, the feedback is usually very limited.

Throughout the cycle, the MTs, thus, form the lesson on their own and then receive feedback about the lesson. There is little, if any, collaboration. Therefore, in our study, we set out to make the LS cycle more collaborative and especially to stress collaboration in the planning stages of the cycle. As suggested earlier, we felt that the planning stage is the most critical in teacher development and where teacher collaboration bears the most fruit. Forming a lesson is where a high level of creativity can occur and we wanted the participants to be part of this process. Having all of the participants involved at this stage, enables them to brainstorm and share ideas and experiences with each other. The adjusted cycle used as a framework in the study to generate more collaboration at the planning stage is presented below:

(PPD – Personal Professional Developmental goal)
(TP – Teacher Presenter)
(CTs – Collaborative Teachers)
Outline of the Revised Lesson Study Cycle

In the first phase of the cycle, following Lewis and Hurd (2011), the TP (to take the onus away from having sole responsibility as a MT, we changed the term to teacher presenter) was asked to offer a personal professional development goal (PPD). The stated goal would provide a personal development focus for the TP and would simultaneously help the research team who were the collaborating teachers (CTs) to make suggestions in helping to design the lesson. The roles of the TP as the one who will present the lesson to his/her class and the CTs who would offer their help were discussed at this stage. For example, the TP was expected to tell the group what lesson he/she wanted to focus on and to bring a general outline of the lesson to the next meeting. It was emphasized that the outline should be broad as to allow room for the CTs to offer suggestions. As ideas were exchanged, discussed and eventually decided upon to form the lesson, we came to realize that a planning stage needed to be increased by adding a demonstration lesson stage. The additional allowance for more planning was decided by the participants as a means to provide one more opportunity for feedback and polishing of the lesson before the research lesson. During the research lesson, the TP presented the lesson, the CTs observed and at times helped monitor some of the group activities. Finally, the reflection session took place and feedback was given.
Method and Participants

The collaborative LS project was conducted at a high school in Kyushu, in the southwest region of Japan during one whole academic school year. The project involved eight teachers. The range of teacher experiences was broad. The most senior teacher had over 30 years of experience and the youngest had only two years of teaching experience. It should be noted that two teachers, the most senior teacher and the Head of the English department, not only actively participated, but were quite influential in getting the other teachers to volunteer their time to participate. The co-authors, one a full time member of the teaching staff, the other a professor at a local university, assuming the role of MKO, fully participated in all stages.

During the study, which involved three LS cycles, three participants were selected as Teacher Presenters:

<table>
<thead>
<tr>
<th>Teacher Presenters</th>
<th>Years of teaching experience</th>
<th>Cycle timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>2</td>
<td>May ~ June</td>
</tr>
<tr>
<td>TB</td>
<td>7</td>
<td>November ~ December</td>
</tr>
<tr>
<td>TC</td>
<td>12</td>
<td>January ~ February</td>
</tr>
</tbody>
</table>

Figure 4: Teacher Presenters

Data collection and analysis

The study was designed to explore the impact of teachers going through a collaborative LS cycle at their school and to interpret the data within that context. Hatch (2002) writes, “Qualitative research seeks to understand the world from the perspectives of those living in it” (p.7). Therefore, a qualitative approach was used to provide the researchers with a “theoretical lens” (Creswell, 2007, p. 11) to trace participating teachers as they developed and implemented their research lesson. The following data collection and analysis methods used in this study are consistent with a qualitative approach:

1. Video recordings of each session
   (Recordings were used for two purposes, for researchers to analyze and in the case that all team members are not present for a meeting or a lesson in real time, the recordings were made available)
2. Feedback sheets from CTs
3. Interview with TP
4. Field notes from researchers

Data on TC, the last TP to go through the cycle will be the focus of this paper. As mentioned, the key revision of the LS cycle framework was to allow more time for collaboration in the planning stages compared to the previous way of doing LS at the school which left little to no room for collaboration in the planning of the lesson (see Figure 2). The revitalized collaboratively designed LS cycle shown in Figure 2 was used as a framework to outline the stages of the study, depict the roles of the participants and organize the meeting sessions. The model this case study followed consists of four stages (adapted from Lewis & Hurd, 2011) that flow together to
complete one cycle of the lesson study. Data depicting what occurred in each stage of the cycle will be used as a framework to report and interpret the outcomes.

The procedure for collecting data as the participating members went through the LS cycle was conducted in the following manner:

<table>
<thead>
<tr>
<th><strong>Stage One:</strong> Goal-setting and collaborative planning agenda</th>
<th><strong>Stage Two:</strong> Planning the lesson</th>
<th><strong>Stage Three:</strong> Demonstration lesson</th>
<th><strong>Stage Four:</strong> Research Lesson</th>
<th>**Stage Five Post Lesson feedback/TP reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TP identifies his/her goals for the lesson. Unit from textbook is decided.</td>
<td>1. TP presents outline of lesson.</td>
<td>1. TP teaches Demonstration lesson</td>
<td>1. TP teaches the lesson in the classroom</td>
<td>1. CTs meet to discuss and analyze the data collected during the observation of the Research Lesson</td>
</tr>
<tr>
<td>2. TP brings a broad outline of the lesson plan so that room is left for CTs to provide support.</td>
<td>2. CTs exchange ideas and make suggestions.</td>
<td>2. CTs perform role as students</td>
<td>2. CTs observe and collect data on such things as student thinking / learning, teacher student engagement, behavior, etc.</td>
<td>2. Members share ideas, reflect on the lesson</td>
</tr>
<tr>
<td>3. Collaborating teachers (CTs) are told that there are feedback sheets to fill out at the end of each session.</td>
<td>3. Lesson plan is re-drafted.</td>
<td>3. Feedback session and further revisions are suggested</td>
<td>3. Members try to determine what improvements may be made</td>
<td>3. Members try to determine what improvements may be made</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. At the end of session TP interviewed to reflect on process.</td>
</tr>
</tbody>
</table>

Figure 5: Descriptions of LS cycle stages

**Phase One: Goal-setting and collaborative planning agenda**

At this stage, TC first identified his PPD goal, which was ‘to have students more involved in communicative activities in class.’ He explained,

It’s hard to get my students involved. As TA and TB said before, I too want to make my class more active and hopefully enjoyable for the students. I hope to use more communicative activities. If I can do well, students will not get bored in class. So, I want to have more
time for students not to listen to my explanation, but to spend more
time on activities by themselves.

TC then presented a broad outline of the lesson plan as suggested so that he would not feel pressure of coming up with an entire lesson on his own. In addition, we wanted more collaboration in the planning stage, so a broad outline would leave room for CTs who were now aware of the lesson topic and TC’s PPD goals.

After TC goes over the details of his/her lesson outline, the MKO frames the discussion by suggesting ways that CTs could look at this plan and make suggestions that are linked to TC’s PPD goals. The discussion started to focus on the main activity, which was to focus on students’ comprehension of assigned reading from the textbook. In this study, an analysis of what occurred during the LS cycle will focus on data concerned with the main activity. The details of the first-phase discussion are presented below:

<table>
<thead>
<tr>
<th>Main Activity</th>
<th>Focus on Learner</th>
<th>CT Comments</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading activity From textbook: Students should read the text for homework and answer comprehension questions.</td>
<td>In class, ask the students to provide answers for comprehension questions. Have students answer out loud to determine if students could answer correctly in English.</td>
<td>Thinking about PPD goals, the activity is not Communicative. Why not have students work in small groups? A suggestion was made to try a jigsaw type activity assigning parts of the reading to individual group members, who then make comprehension questions to ask others about assigned part of reading.</td>
<td>Pedagogical knowledge gain for all members based on a discussion of what a jigsaw activity is and its benefits. CTs discussion results in making reading activity more interactive. TC worried about time about doing interactive group activity, but will think about suggestions and present them at the demonstration lesson</td>
</tr>
</tbody>
</table>

Figure 6: (Phase One) Outline of main activity discussion

As the chart above shows, the focus soon shifted to making the activity more interactive so that TC’s PPD goal communicative goal could be met. Originally, TC just had the students answer questions in a teacher-centered format, standing at the front of the class and asking or calling on students to answer. Putting students in groups to interact and answer the questions among themselves emerged in discussions with CTs. The MKO introduced a version of a jigsaw activity, where students are given responsibility for a part of the passage and have to make comprehension questions for their assigned part could be appropriate in this case. Further discussions
of various versions of a jigsaw activity and the idea of getting students to make questions from the reading and ask them to the students continued until the meeting ended. TC then mentioned that although he was worried that the activity would be time consuming, he would like to consider the suggestions and show the CTs his idea in the demonstration lesson.

**Phase Two: Demonstration Lesson (Ss=students, S1, 2, 3=student 1, 2, 3,)**

<table>
<thead>
<tr>
<th>Main Activity</th>
<th>Focus on Learner</th>
<th>CT Comments</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| CTs as students (Ss) prepare two Q’s each, and are put into two groups of three by TC. | Step 1: S1 asks Q about reading to S2.  
Step 2: S2 write down question and search for answer.  
Step 3: S1 Confirms the answer in the text | All Ss including S3 in group can search for answer together.  
Takes too much time asking two questions; Each student can prepare two questions, but they ask one.  
To avoid replication of questions, text should be divided and students are given responsibility to make question from their part.  
Ss should be given assigned text for homework. Groups should be selected before class and a captain should be appointed to facilitate the group work.  
Conversation strategies are suggested to increase group work interactions in English. | Communicative activity becomes more efficient.  
Groups, assign text responsibility and a leader for each group are pre-planned to further create efficiency and control.  
Further pedagogical gain in conducting group work. TC finally will apply jigsaw version in activity to give Ss responsibility for each part of text, and:  
Concrete discourse strategies to increase group interaction: *Can you read the question again? Please slow down; What does ( ) mean? Where did you find the answer?* |

Figure 7: (Phase Two) the Demonstration Lesson and discussion
The data from the Demonstration Lesson indicate that this phase was very important to the planning process of the lesson. In the initial planning phase, the TC had reported that he would re-draft the reading activity into group work after learning about the jigsaw activity. Although when he demonstrated the lesson and students were put into groups, the structure of the group activity was flawed. One student asked another student to answer a question in the reading while the other student had no real role. This was time consuming. In addition, there was no preparation for when students might have had the same questions. These things were not thought through earlier. However, the value of inserting a Demonstration Lesson into the lesson study cycle was that it provided an opportunity for both the TP and the CTs to go over the lesson together, reflect on the experience and give comments (additional feedback) that the teacher could use effectively.

In the discussions that took place after the Demonstration Lesson, the CTs found a way to make the activity more efficient. Past experiences, and TC’s comment notwithstanding, the authors found that in previous discussions with teachers in Japan that time is an ongoing problem in a 45~50 minute class to insert a communicative type activity into a traditionally structured class of repetition drills, listening to CDs of the text recordings, doing translations, and preparing for tests. The CTs also showed a gain in pedagogical knowledge as they modified the reading activity within the framework of a jigsaw activity as introduced in the previous planning phase. Finally, an important focus emerged on trying to get the students to use more English in groups. The CTs with facilitating advice from the MKO came up with discourse phrases for students to use when they were working in groups. One of the CTs provided a thoughtful idea of having the phrases be left up on a screen for students to glance at when they were interacting.

**Phase Three: Research Lesson**

<table>
<thead>
<tr>
<th>Main Activity</th>
<th>Focus on Learner</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading activity was structured according to CTs comments and outcomes of Demo Lesson. Groups were divided into 8 groups of 4 students.</td>
<td>TC instructed Ss to go into their assigned groups. He advised them to use as much English as possible. “You don’t have to be silent.”</td>
<td>Active participation in the activity. Students cheered for each other when they got the correct answer.</td>
</tr>
<tr>
<td>TP went over discourse phrases to increase English use. The phrases were put on screen as a graphic and left up as reference for students.</td>
<td>The assigned captains began by selecting the 1st students to read their comprehension questions.</td>
<td>There was still a lot of Japanese used, however English use seemed to increase speaking to each other to find the correct answers. One reason was that conversation strategy discourse phrases on the screen seemed to catch the students’ attention.</td>
</tr>
</tbody>
</table>

Out of 8 groups, 6 groups were able to successfully find all of the answers. Two groups had difficulty as it seemed group interaction was at a low rate.

Figure 8: (Phase Three) the Research Lesson
Observations of the Research Lesson indicate that TC was able to implement the suggestions made by CTs after the Demonstration Lesson. This outcome substantiates the importance of including the latter in the lesson study cycle, especially because TC did not fully integrate the suggestions made in the initial planning meeting. The suggestions that were carried out in the research lesson led to a more interactive reading activity, and although the issue of using Japanese could not be avoided, the students did use more English with the aid of using the phrases left on the screen to help with group work interactions.

**Phase Four: Post Lesson Feedback Session**

Immediately after the Research Lesson, the CTs and TC met to reflect on the lesson. TC began, in the tradition of LS reflection sessions in Japan, by first offering his summary of his synopsis of the lesson:

TC: The group discussion activity went well, but I think I can improve on it. I think one of the problems is that students are not used to group discussion activities, so it was not as smooth as I expected, but if I do them [group activities] more, then the results will be even better. Anyway, I’d like to hear your advice and I can revise the plan.

TC’s comments were followed by the CTs in an around the table fashion. Here are some excerpts of the reflection discussion that focused on the reading activity.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT1</td>
<td>I was surprised, and glad to see the students were active. I am also happy to see that many teachers gave you advice in the demonstration lesson and you made the revisions that the other teachers suggested. During the activity, I found that the students were looking up, speaking and volunteering answers. I think it was very good, but gradually you spoke Japanese, so you could continue to try to use more English.</td>
</tr>
<tr>
<td>CT2</td>
<td>(Referring to the group activity). I’m very impressed with the organization of your plan, but there is one thing I’d like you to reconsider for the next lesson…I took part [observing] in one group, but no one could answer the questions. They couldn’t do it. I suggest you carefully designate a [higher level student] chairperson for each group.</td>
</tr>
<tr>
<td>CT3</td>
<td>It would improve on the success of getting students to complete the activity. But, you know, you can’t make ‘the perfect the enemy of the good’. Anyway, getting 80% success rate is better than 10%. So, it shouldn’t be a reason not to continue with this kind of activity.</td>
</tr>
<tr>
<td>CT4</td>
<td>What the TP did today is what we should do from now on (referring to how the LS cycle was conducted with collaboration in the planning stages)</td>
</tr>
</tbody>
</table>
I was impressed that you put in all of our suggestions from the demonstration class. We worried that we gave you too much advice, but you were able to do it. Also, I personally thought that the group activity was better than expected. I went to three groups and I thought, although they were struggling, they could all eventually do it.

Giving useful expressions for the group work was very good to include. I didn’t prepare this during my turn (referring to his Cycle as TP) I could see the class from a new angle.

Some students are always going to be better than others …However, if you can get a good distribution of high level learners as the leaders for each group, they can help the lower level students.

I like the way you started the class, very positive and engaging, interactive and smiling… Your PPD is that you want to involve the students. They didn’t seem bored so, I think you accomplished your goal.

Usually when I do a research lesson, I am nervous, but this time, because I could do a rehearsal class [demonstration lesson] in advance with you, I could get a lot of advice from you and that was very helpful.

In the final phase of the LS cycle and after collaborating in the previous phases, comments from the members revealed what they learned from the experience. From the post reflection discussion three themes emerge: Pedagogical (knowledge) gain, the positive effect of the Demonstration Lesson in the pre-lesson planning stage, and putting a focus on learners. These themes will be detailed in the Discussion section.

**Discussion**

The basis of the research question posed at the outset of the study was to inquire about the effects a collaborative LS cycle would have on teachers. The following three outcomes were a direct result of including collaboration in the pre-planning and planning stages of this LS project:
Pedagogical Gain

A major aim of teacher development is to improve teacher knowledge, which has been defined as compromising two areas of teacher cognition: knowing about the subject one is teaching, and knowing how to teach it (Koehler & Mishra, 2009, Shulman, 1986). In the latter, professional theories of teaching can advance teacher knowledge and this was the case in this study. Comments from the CTs in the reflection session suggest pedagogical gain (see Fig. 7) The participating teachers pedagogical knowledge increased as they learned about the merits of a jigsaw-based, cooperative learning activity (e.g. accountability, increased interaction, positive interdependence—see Johnson & Johnson, 1994) during discussions and implementation of the main group activity. They also discovered a strategy to increase the use of English during the group work by presenting students with phrases to help them during group discussions. It was also noteworthy that the introduction of the jigsaw activity and the acceptance of the TP to include it in his Demonstration Lesson came at the first phase of the study, however, during the Demonstration lesson it was not used.

Demonstration Lesson

Adding the demonstration lesson in the planning phase proved to be fruitful. It allowed all participating teachers to think about the lesson more deeply as they could experience it more fully (CT1, CT4, CT5, see Fig. 7). As discussed, TC did not include the jigsaw activity as agreed in the first phase. It was still a new concept he had not completely grasped. However, after teaching the lesson to the CTs and receiving their feedback, he began to understand the advantages and included it in his research lesson. The idea to use strategic phrases for students to use to increase interaction in their groups also emerged in the demonstration lesson phase. The Demonstration Lesson also increased a sense of collegiality. Teachers by participating in the planning stages in collaboration created a supportive environment for the TC as his closing remarks indicate in the post lesson session.
More Student Focused

John Wooden, a legendary College basketball coach and professor of English literature wrote, “The purpose of teacher research is for the benefit of the students (in Nater & Gallimore, 2006, p. 43).” One of the outcomes of going through a collaborative Lesson Study cycle is that it enables teachers to get a classroom centered focus on their instruction by developing “eyes to see students” (Lewis, 2002, p.12). In other words, these ‘eyes’ are keenly developed not in isolation, but socially constructed in collaboration with other teachers who share their diverse views (Cochran-Smith & Lytle, 2009). Several of the comments given by the CTs were directly based on observations of students during the main activity. The comments (see Fig. 7) ranged from developing strategies to improve on a means to evaluate students during group work activity (CT2); noticing that TC started to use more Japanese as the activity went on (CT1), as well as recognizing improvement such as implementing suggestions made by the CTs (CT1); increased interaction in groups (CT5) and success of including English phrases for students to use while doing the group activity (CT6).

Conclusion

In conclusion, it can be said that conducting the LS cycle in collaboration, especially in the planning stages, can positively affect the professional development of not only the TP but also the CTs involved in the process. Through the TP defining a PPD goal and CTs working towards helping him realize it in the research lesson, the participants working as a team were able to experience exploratory, classroom-based teacher development by covering the major steps of AR (and therefore LS), namely; plan, act, observe, reflect, revise (Kemmis & McTaggart, 1988, Nunan, 1993). The research question, which focused on the impact of increasing the amount of collaboration in the planning stages of the LS cycle proved to be an important part of this case study producing the outcomes presented here. Although this is only an example of one case, the authors believe that the collaborative approach to LS, when conducted as outlined in this paper, will affect the dynamics of the department conducting the study. Broadening the focus of LS to include CTs in the early planning stages and on through the phases of the study allows the participants to see their teaching styles, methods, and practices in a new light and also, perhaps more importantly, to see the way their students learn more clearly as well. We hope that more professional educators, especially at the secondary school level will recognize the importance of continued teacher development projects in their schools and incorporate the LS model as outlined in this paper as a framework to help guide them through the steps and to make each of those steps as collaborative as possible given their unique situation. In doing so, assuming the role of teacher researcher through presenting their unique findings they will add to the material available and contribute to a higher quality of education to students everywhere.

As stated in the title, it is our intent to revitalize LS in the secondary schools within Japan. An important factor in this revitalization will be the cooperation of administrators and teachers to first recognize the importance of teacher development programs such as this one and then to implement them in their institutions. We feel strongly that the inclusion of collaboration as a central focus of their LS cycle
throughout the phases will produce similar outcomes and have continued positive effects on all of the participants.
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**Contact email**
Terry Laskowski : terry@kumamoto-u.ac.jp
Marc Waterfield : www.calm-mizuno-m@outlook.com