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Lesson Study for Improvement of Classroom Quality

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PP5-1218-3

Enhancing Students Active Learning Using PAIKEM method on Instructional Design Subject through Lesson Study

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Keywords:

*Learning activities,
innovative learning,
Lesson Study*

Biology Education Studies program (Prodi Biology) JPMIPA FKIP UMM, has a goal of producing a professional prospective biology teachers. Supporting that goal, students obtain college planning and teaching and learning strategies. Professional teachers are who have mastered the characteristics of teaching materials and teaching strategies. Course teaching and learning strategies equip students to be able to plan and implement learning by as much as you. The problems found in the lecture for this is the level of student learning activities are still low. There are various strategies and innovative learning methods that need to be mastered mahasiswa prospective teachers. The purpose of writing this paper is to describe the results of the implementation of lesson study to improve student learning activities Prodi fourth semester of biology education by implementing innovative learning in the lecture planning and teaching and learning strategies.

Lesson Study has been conducted on matakuliah planning and teaching and learning strategies in the second semester of 2010/2011. Its activities include the plan, do and see, take place within 4 (four) cycles. In the activity plan, the faculty makes learning implementation plan (RPP) in person, is discussed together with the lecturers. In DO activities students carry out the learning process and are observed by some lecturers. See on the activities, carried reflections on the learning that has been carried out led by a moderator.

Data on the findings of the learning activities of students after analysis showed that there is increased activity of students in the lecture from cycle to cycle. With LS They are conditioned to learn sincerely and responsibly. It can be concluded that the LS can enhance the learning activities of students in the lecture and LS can be a means of application of innovative learning.

PP5-1254-1

Teachers' Opinion toward Lesson Study of Primary and Lower Secondary Schools in Vietnam

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Keywords:

*Experienced
teachers, lesson
study, Likert scale,
non-experienced
teachers*

This paper aims to present the opinion of Vietnamese teachers toward lesson study. This study was a survey research. The samples were 21 experienced teachers toward lesson study in Hau Giang province and 44 non-experienced teachers toward lesson study in Can Tho province in 2014. The instrument used in this study was a questionnaire with 13 Likert scale items to assess 6 aspects of lesson study. The questionnaires were constructed by the researchers base on the principle and process of lesson study according to Lewis (2002) and Fernandez & Yoshida (2004). The used statistical data were frequency, mean and SD. The results revealed that most experienced and non-experienced teachers both have an opinion toward applying lesson study in the school at an important level (score: 4.03 ± 0.45 and 4.01 ± 0.47 respectively). Most experienced teachers indicated that they had experience with almost all of the lesson study activities provided in the part lesson study project.

Teachers' opinion toward lesson study in primary and lower secondary schools in Vietnam

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Abstract

This paper aims to present the opinion of Vietnamese teachers toward lesson study (LS). Across sectional survey research was conducted on 21 experienced teachers toward LS in Hau Giang province and 44 non-experienced teachers toward LS in Can Tho province in 2014. The instrument used in this study was a questionnaire with 13 Likert scale items to assess 6 aspects of LS. The author constructed the LS questionnaire base on the principle and cycle of Lewis (2002) and Fernandez & Yoshida (2004). The frequency, mean and standard deviation were employed in this study. The results revealed that most of experienced and non-experienced teachers had opinion toward applying LS in the school at important level (Mean and SD, 4.03 ± 0.45 and 4.01 ± 0.47 , respectively). Most of experienced teachers indicated that they had an experience to almost all items of LS activities provided in the part of LS project. Most of experienced teachers thought that LS cycle is at important (Mean and SD) The non-experienced teachers also thought that LS cycle is at important (Mean and SD). They had a positive opinion at *important* level aspects. Over all (100%) experienced teachers had deeply understand LS cycle and they felt very happy to join LS

Keywords: Experienced teachers, lesson study, non-experienced teachers, and teachers' opinion.

INTRODUCTION

Lesson study (LS) is an effective strategy to develop teaching and learning skills for teachers and enhance deep understanding for students. LS is implemented by observing and reflecting on empirical lessons by teachers or external persons (Saito, Tsukui, & Tanaka, 2008). It is the process by a group of teachers which is regularly meet and work over a period of time to design, to perform, to test, and to improve one or several "research lessons" (Stigler & Hiebert, 1999). This process includes six steps: (a) collaborate with other teachers to carefully design lesson plan, (b) observe by other teachers or educators, (c) discuss with other

teachers for analysis and reflection, (d) revise the lesson, (e) reteach with a new version of lesson, and (f) share reflections about the updated version of the lesson (Fernandez & Yoshida, 2004; Lewis & Tsuchida, 1998; Lewis, 2000).

Applying LS gains a lot of advantages to improve the quality of teaching and learning in school. For instance, several studies in the United States showed that applying LS increases content and pedagogy knowledge of the teachers, enhances community skills of teachers, and creates teaching and learning material resources (Lewis, Perry, & Murata, 2006; Lewis & Tsuchida, 1998; Lewis, 2002; Stigler & Hiebert, 1999). In specially, applying LS will upgrade knowledge and skills of teachers, including: teachers' competencies, create the manual guidelines, and promote the collaboration among teachers (Fernandez & Yoshida, 2004).

LS has been originated in Japan since 1870s (Makinae, 2010), and it gains huge benefit in Japanese classrooms (Lewis & Tsuchida, 1998; Stigler & Hiebert, 1999). Since 1998 LS has broadly employed in the United States (Lewis et al., 2006; Stigler & Hiebert, 1999), and then expanded to other countries. LS has also implemented in East Asia, including Singapore (Chong & Kong, 2012; Lim, Lee, Saito, & Syed Haron, 2011; Tan-Chia, Fang, & Ang, 2013), Hong Kong (Cheng, 2011), Indonesia (Suratno, 2012), Malaysia (Meng & Sam, 2011), Thailand (Inprasitha, 2011) and Vietnam (Wheeler, Chi, Hong, & Ho, 2011). With a lot of profound efficiencies, LS is implementing all around the world.

In Vietnam, LS was first introduced from 2004 to 2007 by the Japan International Cooperation Agency (JICA) project. This project was conducted in five primary schools in Bac Giang province, the North of Vietnam (Saito, Khong, & Tsukui, 2012) in three years. The purpose of this project was to support the child-center didactic approach curriculum of the Ministry of Education and Training (MOET)'s (Vietnam's National Assembly, 2000). The project emphasized the collaboration, relation and reflection of teacher professional development.

The second LS project was launched in Hue province, the middle of Vietnam by initial grant from the Asia Pacific Economic Cooperation, in 2005. It was conducted in Nguyen Tri Phuong lower secondary school. This project focused on LS as a tool for improving teaching and learning, in order to have effective innovation in teaching and learning (Vui, 2006). The prominent aspect of the project was to focus self-developing communication and construction knowledge skills for students and helping teachers learn how to used open-ended tasks in their teaching (Vui, 2013).

The third project was implemented in 2007 with support from School of Education of Cantho University and Michigan State University. This project was carried out in primary and lower secondary schools with two subjects, including Mathematics (grade 7) and Geography (grade 5) in Hau Giang province the South of Vietnam. After that LS was expanded to 14 pilots with difference subjects in academic year 2008-2009 (Wheeler et al., 2011). This project was emphasized in improving teaching and learning. The successful of this project was focus on both enhance teachers' contents, teachers' pedagogy knowledge and improve the learning need.

Applying LS in Vietnam bring many benefits for teachers. Almost teachers, who participated in project, indicated a strong interested in methodological aspects, a good relationship among teachers in the school. They also accustomed to listen to each other giving feedback (Saito & Tsukui, 2008). Teachers created new teaching materials and also used variety kind of materials in their teaching. Applying LS also helped teachers show the connection between mathematics theory and the real life for students. Especially, teachers had ability to show for their students how to applied mathematics to solve the real-life situations (Vui, 2013). The participant teachers in LS projects improved their concept knowledge and teaching skills. They have improved many abilities, such as using many strategies: productive questions with teaching aids, combine previous knowledge and new knowledge, and mainly focus on students learning (H. T. T. Ho, Hong, Wheeler, & Chi, 2008).

However, applying LS in Vietnam faces several barriers. According to Decision 23/2000 QD-BGD&DT on School rules of MOET, major team teachers are required to have meeting at least two times per month. The meeting objective is to see problems that teachers encounter in their teaching and to solve these problems with about two hours per meeting (MOET, 2000). Although teachers follow the rules of the professional teacher meetings, they do not have opportunities to develop their own professional capacities (H. T. T. Ho et al., 2008; Saito & Tsukui, 2008). In the real situation, the main topics are mentioned during the meeting time, including school plans and Department Education and Training plans. Teachers spend little time to consider about contents and pedagogical knowledge for their teaching (T. H. Ho, Wheeler, Chi, & Hong, 2009).

In addition, teachers face on the major team issue. Depends on schools, if the school has adequate teachers, who response for the same subject, they will have one major team. But if the school has inadequate teachers, who teach the same subjects, the major team will

combine other teachers from different subjects. Therefore, they do not have the same problems or situations with contents and pedagogy knowledge to discuss together. In the publish lesson teaching, other teachers in the major team will observe and give feedback for teacher performance. However, all observers have just given scores, feedback on teaching process instead of improving contents and pedagogy knowledge, and teaching skills (H. T. T. Ho et al., 2008). So teachers meeting and observation in the teacher performance do not improve teaching capacities.

In order to improving the quality of teaching and learning, LS should be broadly applied in Vietnam. Nevertheless, the challenges in applying LS may lead to reluct or lack of enthusiasm of teachers in applying LS in Vietnam. Previous study have demonstrated that teachers' attitude, beliefs or behavior are associated with the first applying new method (Saito et al., 2008). This study aims to investigate the opinion toward applying LS among teachers in primary and lower secondary schools.

METHOD

Study subjects

This was a cross-sectional survey on 21 experienced teachers and 44 non-experienced teachers. Experienced teachers, who have been taught at primary and lower secondary school, had been trained about LS project in Hau giang province of the 2008 -2009 academic year. Non-experienced teachers, who have been taught at primary and lower secondary school and they had not been trained about LS in Can tho province. Experienced teachers were randomly selected from participants LS project between Michigan University and Can tho University from 2008 to 2009 (Wheeler et al., 2011). Non-experienced teachers were randomly selected from primary and lower secondary school in the Can tho city. The collected data time was in the academic year 2013-2014.

Instrument structure

Our questionnaire was developed base on the steps of LS cycle of Fernandez and Yoshida (2004 p. 7-9) and base on the real circumstance applying LS and teaching and learning in Vietnam. This instrument was trialed from the first samplings in present study. Our questionnaire was designed into three parts, but the non-experienced teachers answered only the first two parts. The three parts were: (1) baseline characteristics of teachers (2) opinion toward LS process and (3) experienced teachers opinion about LS activities. In the first part, teachers answered by ticking one box per question. In the second part, teachers

ticked one response on a Likert-scale. In the third part, experienced teachers ticked yes or no answer that they have experience to apply LS activities in teaching. We used a closed-response pencil and paper questionnaire.

Data analysis

First, we coded criteria for justification opinion level of experienced teachers and non-experienced teachers toward LS as follow ≤ 1.5 : totally not important; ≤ 2.5 : not important; ≤ 3.5 : Not sure; ≤ 4.5 : Important; ≤ 4.6 : very important

Second, data were analyzed using descriptive statistics to measure opinion level mean score and percentage.

Results

Table 1. Personal information of experienced and non- experienced teachers

| Variables | Experienced | | Non experienced | |
|--|--------------------|----------|------------------------|----------|
| | n | % | n | % |
| <i>Gender</i> | | | | |
| Male | 12 | 57.1 | 11 | 25.0 |
| Female | 9 | 42.9 | 33 | 75.0 |
| <i>Highest level of education</i> | | | | |
| Associate's degree | 6 | 28.6 | 15 | 34.1 |
| Bachelor's degree | 15 | 71.4 | 28 | 63.6 |
| Master's degree | - | - | 1 | 2.3 |
| <i>Type of school</i> | | | | |
| Primary | 12 | 57.1 | 16 | 36.4 |
| Lower secondary | 9 | 42.9 | 28 | 63.6 |
| <i>Years of teaching experience</i> | | | | |
| 1-10 | 4 | 19.0 | 12 | 27.3 |
| 11-20 | 6 | 28.6 | 28 | 63.6 |

| | | | | |
|-----------|----|------|---|-----|
| ≥ 21 | 11 | 52.4 | 4 | 9.1 |
|-----------|----|------|---|-----|

The baseline characteristics are shown in Table 1. Most of experienced (71.4%) and non-experienced (63.6%) teachers had bachelor degree and the post-graduate degree was very low (2.3%). Among experienced teachers, over half (52.4%) has been taught more than 21 years, and the majority of non-experienced teachers has been taught around 11-20 years (63.6%).

Table 2. Opinions of experienced teachers toward LS cycle

| Variables | Very important n (%) | Important n (%) | Don't know n (%) | Not important n (%) | Totally not important n (%) | Total score | Mean ± SD | Opinion Level |
|---|---------------------------------|----------------------------|-----------------------------|--------------------------------|--|--------------------|------------------|----------------------|
| <i>Collaboration with others to prepare lesson plan</i> | | | | | | | | |
| to identify goals | 18 (85.7) | 3 (14.3) | - | - | - | 196 | 4.67 ± 0.29 | Very important |
| to review and improve lesson plans | 10 (47.6) | 11 (52.4) | - | - | - | | | |
| <i>Try out lessons in the class by a teacher, then, observe by peer</i> | | | | | | | | |
| observe student participation | 10 (47.6) | 10 (47.6) | 1 (4.8) | - | - | 263 | 4.18 ± 0.74 | Important |
| observe student attitude and behaviors | 7 (33.3) | 13 (61.9) | 1 (4.8) | - | - | | | |
| observe teaching performance | 11 (52.4) | 3 (14.3) | - | 6 (28.6) | 1 (4.8) | | | |
| <i>Reflect the teaching practice: by peer review (colleagues; teacher)</i> | | | | | | | | |
| to analyze student works | 8 (38.1) | 11 (52.4) | 1 (4.8) | 1 (4.8) | - | 348 | 4.14 ± 0.65 | Important |
| to analyze teacher performance | 8 (38.1) | 7 (33.3) | 2 (9.5) | 4 (19.0) | - | | | |
| to revise and design lesson plan | 7 (33.3) | 13 (61.9) | 1 (4.8) | - | - | | | |
| try out lesson plan again | 8 (38.1) | 10 (47.6) | 1 (4.8) | 2 (9.5) | - | | | |
| <i>Rewrite all result activities as manual or research report</i> | 5 (23.8) | 7 (33.3) | 3 (14.3) | 6 (28.6) | - | 74 | 3.52 ± 1.17 | Important |

| | | | | | | | | |
|--|----------|-----------|----------|----------|----------|-------------|-------------------|------------------|
| <i>Period of implementing</i> | | | | | | | | |
| one semester (2 times per month) | 3 (14.3) | 6 (28.6) | 4 (19.0) | 5 (23.8) | 3 (14.3) | 131 | 3.11 ± 0.55 | Don't know |
| two semester (2 times per month) | 4 (19.0) | 5 (23.8) | 4 (19.0) | 7 (33.3) | 1 (4.8) | | | |
| <i>Teachers can managing time to participate this project</i> | 4 (19.0) | 16 (76.2) | 1 (4.8) | - | - | 87 | 4.14 ± 0.48 | Important |
| <i>Total number of each group</i> | - | - | - | - | - | 1099 | 4.03 ±0.45 | Important |

Of total opinion level of experienced teachers toward LS cycle, most of teachers thought it was important. The percentage of teachers opinion with the “*Collaboration with others to prepare lesson plan to identify goals*” was highest score (4.67 ± 0.29 : very important) whereas the opinion about the “*period of implementing*” was lowest score (3.11 ± 0.55 : don’t know).It means the period of implement LS cycle of all experienced teachers were unsure. So the opinion towards this issue was enormous controversy among teachers. There in opinion toward LS for experienced teachers is provided in Table 2.

Table 3. Opinions of non-experienced teachers toward LS cycle

| Variables | Very important n (%) | Important n (%) | Don't know n (%) | Not important n (%) | Totally not important n (%) | Total score | Mean ± SD | Attitude Level |
|---|---------------------------------|----------------------------|-----------------------------|--------------------------------|--|--------------------|------------------|-----------------------|
| <i>Collaboration with others to prepare lesson plan</i> | | | | | | | | |
| to identify goals | 35 (79.5) | 5 (11.4) | 4 (9.1) | - | - | 386 | 4.39 ± 0.53 | Important |
| to review and improve lesson plans | 11 (25.0) | 25 (56.8) | 8 (18.2) | - | - | | | |
| <i>Try out lessons in the class by a teacher, then, observe by peer (Collegial teacher)</i> | | | | | | | | |
| observe student participation | 16 (36.4) | 25 (56.8) | 3 (6.8) | - | - | 556 | 4.21 ± 0.61 | Important |
| observe student attitude and behaviors | 12 (27.3) | 24 (54.5) | 7 (15.9) | 1 (2.3) | - | | | |
| observe teaching performance | 22 (50.0) | 13 (29.5) | 8 (18.2) | 1 (2.3) | - | | | |
| <i>Reflect the teaching practice: by peer review (Collegial teacher)</i> | | | | | | | | |
| to analyze student works | 9 (20.5) | 28 (63.6) | 6 (13.6) | 1 (2.3) | - | 733 | 4.17 ± 0.55 | Important |
| to analyze teacher performance | 20 (45.5) | 18 (40.9) | 5 (11.4) | 1 (2.3) | - | | | |
| to revise and design lesson plan | 16 (36.4) | 24 (54.5) | 3 (6.8) | 1 (2.3) | - | | | |
| try out lesson plan again | 14 (31.8) | 21 (47.7) | 8 (18.2) | 1 (2.3) | - | | | |
| <i>Rewrite all result activities as manual or</i> | 9 (20.5) | 9 (20.5) | 24 (54.5) | 2 (4.5) | - | 157 | 3.57 ± 0.87 | Important |

| | | | | | | | | |
|--|----------|-----------|-----------|---------|---------|-------------|--------------------|------------------|
| <i>research report.</i> | | | | | | | | |
| <i>Period of implementing</i> | | | | | | | | |
| one semester (2 times per month) | 9 (20.5) | 10 (22.7) | 22 (50.0) | 3 (6.8) | - | 310 | 3.52 ± 0.80 | Important |
| two semester (2 times per month) | 7 (15.9) | 12 (27.3) | 21 (47.7) | 3 (6.8) | 1 (2.3) | | | |
| <i>Teachers can manage time to participate this project</i> | 6 (13.6) | 13 (29.5) | 22 (50.0) | 3 (6.8) | - | 154 | 3.50 ± 0.82 | Don't know |
| <i>Total number of each group</i> | - | - | - | - | - | 2296 | 4.01 ± 0.47 | Important |

Also it can be seen in Table 3 about the opinion toward LS cycle for non-experienced teachers. They had a positive opinion level *important* in all aspects. The opinion was highest score in “*Collaboration with others to prepare lesson plan to identify goals*” at 4.39 ± 0.53 : Important. From this data, we can see that “*Managing time to participate in this project of training*” resulted in the lowest value score opinion toward LS cycle at 3.50 ± 0.82 : Don’t know. The most “*try out lesson in the class by a teacher, then, observe by peer*”, “*Reflect the teaching practice: by peer review (colleagues; teacher)*”, “*Rewrite all result activities as manual or research report*”, and “*Period of implementing*” were at important level at score 4.21 ± 0.61 , 4.17 ± 0.55 , 3.57 ± 0.87 , 3.52 ± 0.80 , respectively.

Table 4. Comparison of opinion toward LS cycle

| Variables | Experienced (Mean ± SD) | Non-experienced (Mean ± SD) | p |
|---|------------------------------------|--|----------|
| Collaboration with others to prepare lesson plan | 4.67 ± 0.29 | 4.39 ± 0.53 | 0.026 |
| Try out lessons in the class by a teacher, then, observe by peer | 4.18 ± 0.74 | 4.21 ± 0.61 | 0.830 |
| Reflect the teaching practice: by peer review (colleagues; teacher) | 4.14 ± 0.65 | 4.17 ± 0.55 | 0.887 |
| Rewrite all result activities as manual or research report | 3.52 ± 1.17 | 3.57 ± 0.87 | 0.864 |
| Period of training | 3.11 ± 0.55 | 3.52 ± 0.80 | 0.041 |
| Managing time to participate in this project of training | 4.14 ± 0.48 | 3.50 ± 0.82 | 0.001 |
| Total mean | 4.03 ± 0.45 | 4.01 ± 0.47 | 0.925 |

Table 4 provides the comparison opinion toward LS cycle in experienced and non-experienced teachers. Of total mean comparison between two groups was not difference. However, perusal Table 4 showed that almost amount of the opinion toward LS training workshop in the future with three objectives are significant difference. To be more specific the opinion of “*Collaboration with others to prepare lesson plan*” of among teachers, the ideas of experienced teachers, which was 4.67 ± 0.29 is substantially higher than non-

experienced teachers, which made up 4.39 ± 0.53 . In addition, for the experienced teachers and non-experienced teachers there is significant difference between two groups of their opinion about lesson “*Managing time to participate in this project of training*” in the future. Likewise, major comparison between the experienced-teachers and the non-experienced teachers is considerably difference of “*Period of training*” will be training in the future related to LS.

Table 5. Supporting ideas of experienced-teacher about LS of experienced teachers after the project has finished

| Variables | Yes n(%) | No n(%) | Not sure n(%) |
|---|---------------------|--------------------|--------------------------|
| Did you understand the meaning of “Lesson study”? | 20 (95.2) | - | 1 (4.8) |
| Did you work in a small group during your training on “Lesson study”? | 21 (100) | - | - |
| Did you create lesson plans by yourself? | 20 (95.2) | 1 (4.8) | - |
| Did someone help you to edit your lesson plans? | 21 (100) | - | - |
| Did you design lesson plans with people in your group? | 17 (81.0) | 3 (14.3) | 1 (4.8) |
| Did you implement your lesson plans in your classroom? | 16 (76.2) | 5 (23.8) | - |
| Did you think your lesson plans good enough for teaching? | 19 (90.5) | 1 (4.8) | 1 (1.8) |
| Did you and your colleagues observe each other? | 21 (100) | - | - |
| Did you and your colleagues discuss and reflect the results together? | 21 (100) | - | - |
| Did you have a chance to rewrite you lesson plans after reflection? | 20 (95.2) | 1 (4.8) | - |
| Did you gain a lot of knowledge from Lesson study training? | 20 (95.2) | - | 1 (4.8) |
| Were you happy when you are preparing lesson plans with other teachers? | 21 (100) | - | - |

| | | | |
|---|-----------|-----------|---------|
| Do you use experience from your LS in your teaching now? | 20 (95.2) | - | 1 (4.8) |
| Did you have the difficulties in implementing LS in your classroom? | 7 (33.3) | 12 (57.1) | 2 (9.5) |

Supporting ideas of experienced-teacher about LS after the project finish is presented in the Table 5. Over all (100%) experienced teachers had deeply understand LS cycle and they felt very happy to join LS project. Otherwise, “*Have the difficulties in implementing lesson study in classroom*” was lowest activities applying with percentage (33.3%)

Discussion

Applying LS is one of the pedagogics to not only enhance professional development for teacher but also poster efficiency study result for students. That why it has been popular implemented around the world. Lesson study has just begun several provinces in Vietnam so we would like to probe the opinion toward LS cycle among teachers in primary and lower secondary school. This study is the first survey after the LS project finishing five years in Hau Giang province. Predominantly, both of the opinion of experienced teachers and non-experienced teachers toward LS cycle were expected to applying LS more in their teaching.

There is no different in opinion between in-service teachers who have experienced with using LS and those who do not. However, applying LS in the primary and secondary school faced with many challenges among teachers in the real situation(Saito & Tsukui, 2008). In this study we found a high positive opinion of experienced teachers and non-experienced teachers about applying LS in these schools. The highest opinion of applying LS was “*Collaboration with others to prepare lesson plan*”. This result indicated that teachers really like to work together to prepare their lesson plan. While collaboration with others to design their lesson plan not happened before they participated the LS project, because in the Vietnamese culture “*each teacher was responsible for developing his or her own lesson*”(Wheeler et al., 2011). Moreover, “*When working together, teachers who had the old age and more teaching experience usually control the meeting and often dominating discussions. Teachers in the same level have not been felt comfortable listen to others (other teachers)*”(Wheeler et al., 2011). However, in LS cycle that teacher’ opinions were the most important action to help each other develop their professional development and it is the core step of LS(see Bui, et.al, 2009), for an extended comparison of a topic taught as a Public

Lesson and as a LS by the same teacher). This result showed that teacher recognized reflection from other is one of the most crucial activities in their teaching.

Almost teachers' opinion about participated LS pilots had high agreement. Applying LS provides them a good opportunity to learn and to develop their teaching skills, such as gain a lot of knowledge and satisfy when they are working together for preparing lesson plan with the percentage were 95.2% and 100%, respectively. Moreover, in this study, we found that 95.2% experience teachers confirmed still using their experience from previous activities of LS project in their teaching. These percentages above-mentioned is a valuable proven to indicate that teachers really enjoyed and interested in LS pilot. The data from survey is also the same results with several previous studies about the benefit of applying LS (T. T. H. Ho et al., 2009; Saito et al., 2008).

In the real circumstance, all teachers who responses for teaching in primary and lower secondary schools are very busy in their jobs. They have to do a lot of activities for preparing, and teaching in the schools. Especially, from the Circular No 30 of Vietnamese MOET (MOET, 2014), primary teachers have to assess each student in their class every day and write to the document for every month of three aspects: process of learning; the formation and development of student capacity; the formation and development of student quality. Besides, their salary is not high so teachers get often a part time job. Therefore, almost teachers may reluctant or unsure to decision-making which time is suitable for the "period of training". The same situation is also revealed with previous research (Saito et al., 2008).

Comparison opinion toward LS cycle between experienced teacher and non-experienced teacher show both groups have the same opinion about LS. Almost opinion levels were important excepted the idea of "Managing time to participate in this project of training" was difference. Experienced teachers had higher attitude than non-experienced teachers. This results is consistency with previous research (T. T. H. Ho et al., 2009) and almost teachers feel very satisfy when they participated the project to applying lesson study cycle. Their professional development not only major content knowledge and but also pedagogy knowledge were witnessed on the reported project in Hau Giang (Wheeler et al., 2011) and the results of this research was mentioned on Table 5.

To the best of our knowledge, it is the first time to investigate the opinion of teachers after five years LS project ending. It is important to know what LS has been effectively teachers or not to expand employ LS for other teachers. The limitation of this study is the

cross section survey with investigated has just mentioned on the opinion toward LS among teachers in primary and secondary schools. So it should be probe both observe in the real circumstance in the class and opinion of teachers. It is difficult to investigate the opinion of teachers because the nature of topic. However, to overcome this problem, we develop a set of questionnaire to evaluate exactly and suitability the opinion of teachers by Likert-scale.

Conclusion

In summary, we found that positive opinion toward LS among teachers in primary, lower-secondary school. However, almost teachers now have just implement LS cycle in the major teacher meeting and the lesson they teach have just only employed a half of LS cycle or do it for one times now. An intervention to experienced teachers should continue implementing LS in their normal teaching, and non-experienced teachers for every level should be trained LS cycle in the future.

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