Lesson Study as a Way toward Enhancing Professional Development: Iranian Novice and Experienced EFL Teachers' Perceptions

Marjan Yazdanifar

MA in TEFL, Department of Foreign Languages, Sheikhbahaee University, Isfahan, Iran Yazdanifar72@yahoo.com

Bahareh Khazaeenezhad*

Assistant Professor in TEFL, Department of Foreign Languages, Sheikhbahaee University, Isfahan, Iran b.khazaeenezhad@gmail.com

Abstract

Lesson Study is considered as a way of improving teachers' professional development in foreign language teacher education courses. Integration of collaboration with focused observation within Lesson Study facilitates teacher professionalization and pedagogical practice. Therefore, this study aimed to explore Iranian EFL teachers' perceptions of the practical implementation of Lesson Study, and examine novice and experienced EFL teachers' comments about merging their theoretical knowledge with practice throughout the application of Lesson Study. To this end, four novice and three experienced language teachers, both female and male were selected as the participants of this study. Data collection was done through triangulation of teachers' reflective notes, an unstructured interview, observation, and field notes. The findings indicated that EFL teachers have positive views toward Lesson Study as a means of professional development. Additionally, the novice and experienced EFL teachers have different attitudes regarding lesson planning, reflective teaching, and collaborating with other colleagues. The findings of this study can have implications for EFL teachers and teacher educators to promote ongoing learning in their profession through reflective teaching and collaboration.

Keywords: Lesson Study, Professional Development, Teachers' Perceptions, Teacher Education

Received: 2020-04-22 Accepted: 2020-06-05

Available Online: 2020-06-10 DOI: 10.22034/efl.2020.228176.1037

^{*} Corresponding author

Introduction

The shift from the traditional method era toward post-method has changed language teacher education drastically. The term teacher education was traditionally used to mean pre-service teacher preparation before being a teacher and joining the teaching profession (Burk, 1987). The theory-oriented approach meant passing years of preparation in an academic environment like a university or an institution and years of teaching without any development or change in approaches to teaching and dealing with students, or any permanent learning program. On the contrary, teacher education now means a continuous process of professional growth beginning with undergraduate studies and culminating in retirement (Burk, 1987).

Moreover, in traditional approach to teacher education, the problem of theory versus practice has emerged due to the transmission nature of training teachers and the gap between teachers and researchers; however, over the last few years, research into relationship between theory and practice gap in teacher training has focused on the question of how teachers can integrate theory and practice, and in which sense the design of learning environment can contribute to that integration (Oonk, 2009).

Language teacher education should aim to provide opportunities for English teachers toward professional development by taking teachers' learning as an important element into account since teachers' learning is a determining factor in the students' learning. The view of learning is based on the assumption that teachers learn from experience through focused reflection on the nature of the meaning of teaching experience (Richards & Lockhart, 1994 Wallace, 1991). Reflection is a critical examination of daily classroom routines through which English teachers assess the effectiveness of their teaching approach on students' learning. Moreover, viewing teachers' learning within the constructivist approach indicates that knowledge is constructed through social interactions and rather than an individual experience (Gergen, 1999; Vygotsky, 1978). This principle supports the idea that teachers should collaborate with each other over teaching issues and communicate with both experienced and novice colleagues in their field.

Along the same line, teacher education programs in Iran failed to follow the appropriate principles of teachers' professional development in training courses. The main problem with Iranian teacher training is its centralization and lack of practice in English and the link with theoretical coursework accomplished by student teachers. Therefore, what is needed is a change in teacher development programs from a transmission model to exploratory one which will enable teachers to reflect upon their practice,

collaborate with each other and have a consistent professional development during their career.

Most important of all, lack of centralized training that mainly focuses on theoretical knowledge without consideration of authentic practice results in transition-oriented approach of teacher training along with priority of years of teaching experiences over educational degree and performance. Accordingly, English teachers mostly rely on their years of teaching experience without paying attention to theoretical principles. Therefore, the result is the gap between theory and practice in foreign language teacher education. It can be assumed that Lesson Study may bridge the gap between theory and practice which can provide an authentic learning setting for teachers to be theorizers of their own action.

The Lesson Study has gained popularity among teacher training centers in recent years. It focuses on powerful ways for teachers to examine, discuss, and learn from their daily works. Sudrajat (as cited in Nashruddin & Nurchman,2016) states that Lesson Study is a model of teacher's professional development through collaborative and mutual learning. Due to the fact that many studies have reported the positive impact of the Lesson Study concerning facilitating teachers' learning, this study seeks to identify the perception of novice and experienced teachers about the efficiency of Lesson Study in integrating theoretical knowledge and pedagogical practice.

In this respect, Lesson Study project was introduced as an effective way in teacher professional development programs. Lesson Study was first developed by primary school teachers in Japan called Kenkyu Jugyo in the Japanese language. Mokoto Yoshida is regarded as the initiator of the Lesson Study and someone who first applied it in mathematics. The success of Japanese teachers in developing Lesson Study is, then, followed by some other countries (Nashruddin & Nurchman, 2016). It involves groups of teachers meeting regularly over a period of time to work on the design implementation, testing, and improvement of one or several "research lessons" (Strigler & Hiebert, 1999). Research lessons are actual classroom lessons, taught to one's own students that are (a) focused on a specific teacher-generated problem, goal, or vision of pedagogical practice, (b) carefully planned, usually in collaboration with one or more colleagues, (c) observed by other teachers (d) recorded for analysis and reflection, and (e) discussed by Lesson Study group members, other colleagues, administers, and/or an invited commenter (Lewis & Tsuchia, 1998).

Assuming that language teaching experience may be a determining factor in the effectiveness of the teaching process, this study aimed to uncover the perceptions of novice and experienced teachers about the efficacy of implementation of the Lesson Study project as a way to bridge the gap between theory and practice and improve professional development. The present study aimed to address the following questions:

- 1. What are the teachers' perceptions about their professional development through Lesson Study?
- 2. What are the teachers' perceptions about merging their theoretical knowledge with their pedagogical practice by using Lesson Study?
- 3. What are the differences between novice and experienced teachers' feedback on the Lesson Study project?

Background of the study

Lesson Study or *Jugyokenky* is indeed in the core of activities in Japan. Yoshide (1873) describes Lesson Study as a process where teachers from several Lesson Study groups develop a lesson and implement it in a regular classroom after which the teachers observe and discuss the lesson. During a three-year investigation of Japanese education, Lewis (2000) found that Japanese teachers were able to successfully shift their approach to teaching science from "teaching as telling" to "teaching for understanding" through intense studying and sharing during Lesson Study. Japanese teachers believe that time spent studying their lessons will subsequently improve their teaching. Furthermore, they believe that the most effective place to improve their teaching is in the context of a classroom lesson (Stigler & Hiebert, 1999). Japanese teachers consistently credit research lessons as the key to individual, school-wide, and national improvement of teaching (Lewis, 2000).

The main reason why Lesson Study was introduced as a form of professional development for Japanese school teachers was that teachers in Japan had recognized the power of teachers helping each other, and seem these teachers develop the curriculum and lessons used in their schools. The system of teachers educating their colleagues were then experienced (Diog & Groves, 2011). The combination of collaboration and focused observation within Lesson Study are considered to be powerful tools for facilitating teacher growth, pedagogy, and the ability to understand student learning (Murta & Takahashi,2002). Therefore, it would be a fair assumption that using Lesson Study, teachers could improve themselves professionally while exchanging their ideas with each other to revise the Lesson Study.

Regarding the application of Lesson Study, Baba (as cited in Nashruddin & Nurchman,2016) identifies two types of Lesson Study: school-based Lesson Study (in school training) and teachers' union-based Lesson Study. The first one is implemented by all teachers from different

fields of study and is led by the theoretical principles; whereas, the second one is the forum to implement Lesson Study based on the problems identified by teachers in that forum. The present research will report the application of the second type of the Lesson Study.

Lesson Study consists of a number of steps that are commonly used as teachers engage in this process. Santyasa (2009) proposes four stages in conducting Lesson Study as follows: 1) goal-setting and planning, 2) research lesson, 3) lesson discussion, and 4) consolidation of learning. Meanwhile, Cerbin and Kopp (2006) provide six steps in which the core of the Lesson Study is the same with Santyasa's. Cerbin and Kopp (2006) point out steps of conducting Lesson Study as follows:

- a) Forming a team: 3-6 people with similar teaching interests are identified.
- b) Developing student learning goals: Team members discuss what they would like students to learn as a result of the lesson.
- c) Planning the research lesson: Teachers design a lesson to achieve the learning goals, anticipating how students will respond.
- d) Gathering evidence of student learning: One team member teaches the lesson while others observe, collecting evidence of student learning.
- e) Analyzing evidence of learning: The team discusses the results and assesses progress made toward learning goals.
- f) Repeating the process: The group revises the lesson, repeating steps 2-5 as necessary, and shares findings.

The studies which have been reviewed aimed to highlight the significant role of Lesson Study project in foreign language teacher education. More specifically, the crucial part of foreign language teacher education in creating circumstances for teachers' learning, that assumes to be collaborative, reflective, and permanent during their career, is highly emphasized.

Since many studies have shown the positive effects of Lesson Study in improving teachers' professional development, the present investigation tried to show how this project had a determining influence on providing learning opportunities for English teachers in Iran. To this end, this study, by assuming that foreign language teaching experience may be one of the factors which affects the performance of the language teachers, intended to investigate novice and experienced teachers' perceptions about the application of Lesson Study.

Method

The study fits in the qualitative paradigm since it intends to investigate teachers' perceptions about their professional development and their

perceptions toward merging their theoretical knowledge with their pedagogical practice through using Lesson Study.

Addressing the research questions, the grounded method theory was used for data analysis that is reviewing the collected data, repeated ideas, concepts, or elements that become apparent and tagged with codes. In the same line, the teachers' reflection journals were arranged in chronological order. After several readings of the collected data, the researcher labeled and categorized them along with identifying important and emergent words, phrases, and concepts in the study and then they were marked with appropriate terms.

Seven novice and experienced language teachers (four novice and three experienced teachers) both female and male were selected as the participants of the study. Three of them hold MA. Degree and the rest hold BA. Degree. The sampling used in this research was selective sampling because the focus of research is on particular characteristics of the population, that is including both experienced and novice teachers, and it enabled the researcher to answer the research questions.

Triangulation was considered in data collection in which multiple data sources, such as teachers' reflection, focused group interviews, observations, and field notes were used. Teachers' reflection on their colleagues' teaching would help us to find different views of experienced and novice teachers regarding their collaborative work. The interview shed some light on the theories behind each teachers' action during the class and their views about the weaknesses and strengths of this project. Moreover, observation and field notes were used to interpret the setting, time schedule, and the process of the study.

Seven teachers volunteered to participate in this project. Following the instruction to the process, participants discussed different aspects of their practice set their teaching goals in the meeting. The participants worked in two groups with one group consisting of three and another four members. The participants then worked to state their problems, began to identify areas of research needed in order to understand their problems more deeply and to allow for informed lesson construction. To improve the teachers' performances based on their colleagues' reflective notes, the researcher served as the project facilitator and assisted teachers in finding appropriate research articles and literature to read and discuss in Lesson Study groups. The related articles provided by the researcher played a significant role in teachers' understanding of the issues that occurred during their teaching. It was clear from their reflections, lesson plans, and discussions during their group meetings where they frequently cited the pedagogical knowledge they had gained from the materials and articles.

Following the sessions led by the researcher and group discussions, the participants felt ready to write an initial lesson plan. One member of each group was (based on class time management) to teach the group lesson plan while the others were observers.

Following the lesson implementation, the Lesson Study groups sent their reflection notes on their teaching practice to a telegram group. The researcher checked the comments, and if needed, posed additional questions, and pushed the teachers to think more deeply about what was experienced and observed. Next, the participants began to revise the lesson plans based on what was observed and discussed, and this procedure was repeated through 20 sessions of these two English teaching classes.

Every four sessions, teachers had a meeting to discuss the process of Lesson Study, their teaching problems, and what they had learned. To conclude, the participants presented their reflection notes and copies of their lesson plans.

As an example, the teachers argued about the application of communicative language teaching (CLT) approach into their practice. They frequently mentioned this approach in their reflections and interviews. T (Teacher)4 in her reflection journal stated that "based on the authentic communicative approach, students learn through communication with others. The teacher did not involve the students in such activities." Also, T2 in one of the discussion sessions explained that "one of the goals of CLT is to develop fluency in the language use and fluency happens when a speaker engages in a meaningful interaction. The activities that we can implement in our classes with this purpose are role play and information gap activities." T1 provided an interesting communicative game in which the teachers were to design game boards based on the students' level and provide a competitive and exciting atmosphere for communication in English.

Furthermore, as an example of CLT approach activity, role-play and information-gap were used in a way that one of the teachers acted the role of weather forecaster, which was related to the students' topic of the lesson, then she drew a map on the board and forecasted the weather in different cities. Then she started asking questions from the students that were considered information-gap questions. All these activities and other similar cases were driven from the materials and related articles and mediated for that special classroom.

Since the research was qualitative, the codification was used for data analysis that was reviewing the collected data, repeated ideas, concepts or elements that became apparent and tagged with codes. As more data were collected, codes were grouped into concepts and then into categories such as learning about teaching, reflective teaching, reflexivity, creativity, flexibility, and professional confidence.

Findings

The main themes and sub-themes related to research questions derived from the collected data are presented in figure.

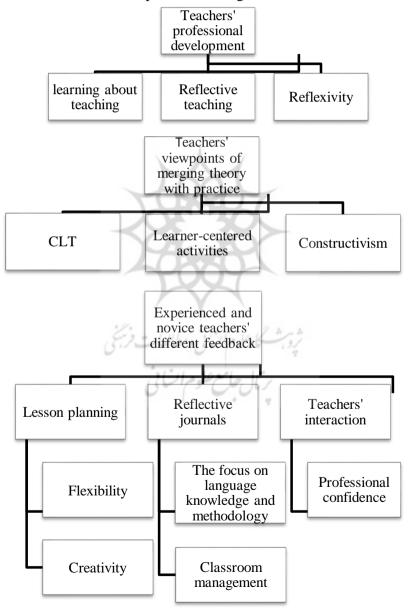


Figure 1. Teachers' viewpoint on Lesson Study in practice

Learning about teaching

Regarding the first research question of the study, the English teachers' perceptions about their professional growth during Lesson Study, three main themes emerged from the collected data which are the teachers' learning, reflective teaching, and reflexivity, that is" strategies to question our own attitudes, thoughts, processes, values, assumptions, prejudice, and habitual actions, to strive to understand our complex roles in relation to others" (Cunnliffe, 2009). All the teachers mentioned that they learned pedagogical points within authentic context during Lesson Study. In addition, the first set of teachers' reflective journals compared to the latest ones revealed some points related to teachers' learning during LS.

T2: Generally speaking, most of us are ignorant about different feedback and correction strategies. Thus she was not an exception. Her feedback was limited to shaking head or saying "yes".

In the interview sessions, some teaching problems, including problems with correcting and giving feedback to students, proper body language, and applying more group activities were discussed. For this purpose, the researcher sent out articles and eBooks that consisted of the discussed issues and various teaching activities, such as "How to teach English" by Jeremy Harmer and "Teaching English as a second language" by Celce Murcia, to study and discuss in greater depth in the next meeting sessions that consisted of the issues and various teaching activities.

Reflective teaching

One of the important features of LS is reflective teaching. While some teachers never had done it before, the researcher clarified the process of writing reflective journals in the first session of the teachers' meeting. Some teachers had misconceptions about reflective journals as describing classroom incidents, a recipe-following approach, or causing offense for other teachers. Thus, the importance of learning through reflections, critical examination of experience, considering contextual factors, and avoiding sensitive personal topics were discussed.

ثرويشسكاه علوم انسابي ومطالعات فرسح

Four teachers, in their interviews, stated that reflective journals were effective for their practice despite the fact that at first, they thought writing lesson plans and reflective journals were very difficult to do. Some of their comments are below.

T2: Reflection on other teachers' action was somehow difficult at the first sessions because I didn't know what issues should be addressed and how to examine teachers' practices. But in the end, I learned a lot from them.

Reflexivity

This study provided evidence for the improvement of English teachers' reflexive action during LS. Five teachers mentioned that they came to see themselves as part of their community at the end of LS and it helped them to reflect on their practice with comparison to other colleagues. Based on the data analysis, the participants in this study went through reflexive action since they were trying to have multi-dimensional perspectives and group-discussions on hypothetical or difficult dilemmas. Moreover, they considered themselves as active subjects and began critically to take circumstances and relationships into consideration rather than merely reacting to them. To this end, the code of "criticism" mentioned by four teachers was decided to be one of the subcategories and was given the title of "teachers' reflexivity" from the gathered data. Regarding the teachers' willingness to consider other perspectives, T5 stated that "I would like to see my colleagues in my class again because their interpretation of my class matters to me. When they criticize my methodology, I would read related books and search for a better method."

Teachers' perceptions of merging their theoretical knowledge with their pedagogical practice

The second research question addressed the role of Lesson Study in merging theoretical knowledge with pedagogical practice based on the participants' perceptions. Since all the English teachers in this study mentioned learning and teaching theories in their reflective journals, it can be concluded that, by taking part in LS, teachers can extend their pedagogical knowledge required for teaching practice (Fernandez, 2005). While one of LS stages included kind of action research activity, the researchers found the reading and sharing of professional literature directly related to the problem of study.

In this regard, five teachers mentioned the theories they used for their practice during LS. For instance, the teachers wrote about the application of communicative language teaching (CLT) approach into their practice. They frequently mentioned this approach in their reflections and interviews. T4 in her reflection journal stated that "based on the communicative approach, students learn through authentic communication with others. The teacher did not involve the students in such activities." Also, T2 in one of the discussion sessions explained that "one of the goals of CLT is to develop fluency in the language use and fluency happens when a speaker engages in a meaningful interaction. The

activities that we can implement in our classes with this purpose are role play and information gap activities."

The differences between novice and experienced teachers' feedback in LS

The third research question addressed the novice and experienced English teachers' different feedback on Lesson Study. The findings of this study revealed that novice and experienced teachers had different perceptions in three stages of LS, which were lesson planning, reflections, and teachers' interaction.

With regard to the experienced teachers, it can be concluded that they were all flexible in following the textbook procedure and adjusted the activities based on the learners' need while novice teachers preferred to have exact plans for the lessons and followed the textbook procedure without adjusting the tasks sequences to learners' characteristics and classroom events.

T5: The teacher did not stick to the textbook. He combined the book tasks with some other activities and even sometimes skip some parts that were not required.

Moreover, based on the teachers' reflective journals, it was noticed that for the novice teachers the "creativity" of the operating tasks in English teaching classrooms was an important factor.

One of the experienced teachers (T7) commented on a novice teacher (T2) practice: "the task that she designed was so creative. She asked students to draw their dreams and stand in from of their classmates and talk about their drawing. They had to use future tense for this purpose. That was the best example of "using language to learn it".

Contrary to expectations, experienced teachers did not prioritize the use of appropriate methodology, instead, they believed in the importance of teachers' language knowledge over other factors in teaching practice. T5: I think the level of the teacher is very important because she/he is the main English source for the students. Even if there is no creative or up-to-date methodology.

The findings of this study showed that novice and experienced teachers had different types of feedback on classroom management. Five teachers reported that novice teachers had deficiencies in managing the students' misbehavior, distraction, and involvement in classroom activities.

T5: She had time-management problem, she spent about 30 minutes on warm-up activity.

T6: She didn't involve all the students and just paid attention to only talkative ones.

In addition, the findings of data analysis demonstrated that Lesson Study had a positive impact on the novice teachers' professional confidence in collaboration with other colleagues

T4: I was afraid to talk about the problems because I was worried to be humiliated, blamed or criticized. But the comfortable atmosphere of the group was very motivating.

Discussion

Regarding the first research question, the concept of professional development is used in different senses. In the light of different approaches to teacher professional development in scholarly debates, the most cited dimensions of teachers' professional development refer to multi-dimensionality as well as culture-sensitivity of professionalism. Professionalism is developed when teachers are provided with both the professional knowledge and skills to improve their capabilities and opportunities to translate their professional knowledge and skills into classroom activities (Brehm, 2006).

In the same lines, this study by implementing Lesson Study project among Iranian EFL teachers provided an opportunity for learning, having reflective teaching, and improving reflexivity in authentic classrooms. The findings of the study confirm the results of Hammond (2003) which emphasizes the teachers' professional development through studying, doing, and reflecting; by collaborating with other teachers, looking closely at students and their work, and sharing what they see .Both reflective teaching and reflexivity are considered as forms of teachers' professional development. Bailey (1997) offers the following three reasons for practicing reflective teaching:

"Reflective teaching is extremely valuable as a stance, a state of mind, a healthy questioning attitude toward the practice of our profession. It creates a context that promotes professional dialogue as we accumulate substance for our stories and it helps to clarify our thinking." (P. 15)

In the same way, the participants in this study went through reflexive action since they tried to have multi-dimensional perspectives and group discussions on students' learning problems. Archer (2007,p.94) emphasizes the importance of reflexivity in navigating our way through the world and defines its regular exercise of the mental ability, shared by all normal people, to consider themselves in relation to their social context and vice versa. Reflexive practice can be considered the ultimate form of reflective practice.

Discussing the second research question, the teachers believed in the impact of Lesson Study on merging their theoretical knowledge into their practice. In the first chapters, the problem of the theory-practice gap in teacher education was discussed. Alwrite (1991) argued that instead of thinking of practice as a derivation from theory, it would be more profitable to think of practice generating its own theory. He also noted that "it is not matter of making the classroom conform to some patterns established as effective by research from outside, but of making the classroom itself the locus of research." The present study demonstrated that Lesson Study had positive effects on merging theoretical knowledge into practice since the participants tried to design classroom activities while considering theoretical principles of language learning.

Regarding the novice and experienced teachers' perceptions about Lesson Study, the analysis of data revealed that experienced teachers were more flexible in following the lesson plans while the novice teachers had exact and detailed plans for each session and tried to follow the plan as it was prepared. In the same lines, Borko and Livingston (1989) concluded that expert teachers are more autonomous in decision-making while novice teachers believe in procedures, rules, and curriculum guidelines.

Moreover, in the stage of reflective teaching, experienced teachers focused on the teachers' language knowledge and classroom management whereas novice teachers focused on the methodology and creativity of the planned activities. Similarly, Kagan and Tippins (1992) argued that novice teachers spend much energy and time on planning lessons that are more detailed and elaborate.

In addition, the findings of data analysis demonstrated that Lesson Study had a positive impact on the novice teachers' professional confidence in collaboration with other colleagues. As Areni (cited in Haghighifard & Marzban,2016) noted, one of the most important parts of the Lesson Study is collaborative working of teachers and the teachers should open doors to their colleagues if they want to give and receive reflect

Conclusion

This study sought to explore experienced and novice EFL teachers' perceptions about the benefits of LS. The findings indicated that LS is a beneficial approach to improve EFL teachers' professional development and helps them merge their theoretical knowledge with their pedagogical practice. The results of the analysis of experienced and novice teachers' reflective journals and interviews indicated that experienced teachers are more skillful in classroom management and they are more flexible in following the classroom procedure. On the other hand, novice teachers are

more concerned about creativity and following the students' interests. In addition, novice teachers focus on the appropriate use of teaching methodology, and their professional confidence was improved when they applied Lesson Study project.

The findings of this study can have implications for EFL teacher educators and EFL teachers to pave the way for understanding the importance of Lesson Study as a professional development approach. According to what was discussed in relation to the limitations of the study, the follow up studies can remove the limitations of this study by replicating it using a broader sample and conducting it over a longer period of time.



References

- Allwright, D., & Bailey, K. M. (1991). Focus on the language learner. Cambridge: university press.
- Archer, M.S. (2007). *Making our world through the world: Human reflexivity and social mobility*. Cambridge: Cambridge university press.
- Bailey, K.M. (1997). Reflective teaching: Situating our stories. *Asian journal of English language*.7, 11.
- Borko, H., & Livingstone, C. (1989). Cognition and improvisation: Differences in mathematics instruction by expert and novice teachers. *American Educational Research journal*, 26 (4), 473-498.
- Brehm, B. (2006). Instructional design and assessment: An interdisciplinary approach to introducing professionalism. *American Journal of pharmaceutical education*, 70(4), 1-15.
- Bruke, P.J. (1987) Teacher Development. New York: The Falmer Press.
- Cerbin ,B., & Kopp, B.(2006) A brief introduction to college Lesson Study .Retrieved from htttp://www.uwlax.edu/sotl/lsp/index2.htm.
- Cunnliffe, A. (2009). Reflexivity, learning and reflexive practice. *Management learning* .40 (1), 87-101
- Diog, B., & Groves, S. (2011). Japanese Lesson Study: Teacher professional development through countries of inquiry. *Mathematics teacher education and development*, 1,77-93.
- Fernandez, C. (2002). Learning from Japanese approaches to professional development: The case of Lesson Study. Language teaching research quarterly, 5,395-405.
- Gergen, K. J. (1999). Agency: social construction and relational action, *Theory and Psychology* 9,113-115.
- Haghighifard, M., Marzban, A. (2016). Viewpoints on the practical implementation of Lesson Study in EFL classrooms. *International Journal of Humanities and Culture*.3, 2356-5926.
- Hammond,D. L. (2009). *Professional learning in the learning profession:*A status report on teacher professional development in the United States and abroad. Stanford University: National staff development council.
- Kagan, D.M, & Tippins, D.J. (1992). The evolution of functional lesson plans among twelve elementary and secondary student teachers. *Elementary School Journal*, 92(4), 477-489.
- Lewis, C. (2000). Lesson Study: The core of Japanese professional development. Philadelphia: Research for better schools.

- Lewis, C., & Tsuchia, I. (1998). A lesson is like a swiftly flowing river: Research lessons and the improvement of Japanese education. *American Educator*, 14-17.
- Murata, A., & Takahashi, A. (2002). Vehicle to connect theory, research, and practice: how teacher thinking changes in district-level lesson study in Japan. Paper presented at the Twenty-fourth annual meeting of the North American chapter of the international group of the Psychology of Mathematics Education, Columbus, Ohio.
- Nashrudin, W., & Nurrachmaan ,D. (2016). The implementation of Lesson Study in English language learning: A case study. *Dinumika Ilmu*, 2,169-179.
- Oonk, W. (2009). *Theory-enriched practical knowledge in mathematics teacher education* (Doctoral thesis, Leiden University). Retrieved from https://openaccess.leidenuniv.nl/handle/1887/13866.
- Richards, J.c., & Lockhart, c. (1994). *Reflective Teaching in Second Language Classrooms*. Cambridge University Press.
- Santyasa, I. W. (2009). Implementasi Lesson Study dalam Pembelajaran. In Paper presented at Seminar Implementasi Lesson Study dalam Pembelajaran bagi Guru-Guru TK, Sekolah Dasar, dan Sekolah Menengah Pertama di Kecamatan Nusa Penida, Nusa Penida, Indonesia. Indonesia: Universitas Pendidikan Ganesha: January 24th.
- Stigler, J. W., & Hiebert, J. (1999). The teaching gap: Best ideas from the world's teachers for improving in the classroom. *Psychology*, 12,209-227.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Massachusetts: Harvard University Press
- Wallace, M. J. (1991). Training foreign language teachers: A reflective approach. New
- York: Cambridge University Press.
- Yoshida, M. (1999). Lesson study: A case study of a Japanese approach to improving instruction through school-based teacher development (Doctoral Dissertation: University of Chicago).