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## THE EFFECT OF LESSON STUDY METHOD ON TEACHER'S PROFESSIONAL DEVELOPMENT

**Abstract.** This article focuses on aspects of the Japanese Lesson Study method as well as professional development for teachers. Lesson Study is a professional teacher development model that aims to improve the teaching and learning process. Based on the practice of lesson study, this paper proposes a model for developing pedagogical knowledge and improving teaching. Recent research has suggested that effective professional learning would last forever. This necessitates a daily examination of the teachers. It is becoming increasingly important for teachers to mutually observe and jointly reflect on classroom practices in order to develop such a community. The purpose of this article is to go over the planning and implementation of Lesson Study.

**Keywords:** Lesson Study method, teacher, professional development, teaching and learning process.

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**Аңдатпа.** Бұл мақалада сабақты зерттеудің жапон әдістемесінің аспектілері (lesson study), сондай-ақ мұғалімдердің біліктілігін арттыру мәселелері қарастырылады. Lesson Study-бұл оқыту мен оқу процесін жетілдіруге бағытталған мұғалімнің кәсіби даму моделі. Сабақты зерттеу тәжірибесіне сүйене отырып, бұл мақала педагогикалық білімді дамыту және оқытуды жетілдіру моделін ұсынады. Соңғы зерттеулер тиімді кәсіптік оқыту мәңгілікке созылатындығын көрсетті. Бұл мұғалімдерді күнделікті тексеруді қажет етеді. Мұғалімдер үшін осындай қоғамдастықты дамыту мақсатында сыныптағы жұмыс тәжірибесін өзара бақылау және бірлесіп талдау барған сайын маңызды бола түсуде. Бұл мақаланың мақсаты-сабақты жоспарлау мен зерттеуді қарастыру.

**Түйін сөздер:** Сабақты зерттеу әдісі (lesson study), мұғалім, кәсіби даму, оқыту және оқыту процесі.

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**Аннотация.** В данной статье рассматриваются аспекты японской методики изучения урока (lesson study), а также вопросы повышения квалификации учителей. Lesson Study - это модель профессионального развития учителя, направленная на совершенствование процесса преподавания и обучения. Основанная на практике изучения урока, данная статья предлагает модель развития педагогических знаний и

совершенствования преподавания. Недавние исследования показали, что эффективное профессиональное обучение будет длиться вечно. Это требует ежедневного труда учителей. Все более важным для учителей становится взаимное наблюдение и совместный анализ практики работы в классе в целях развития такого сообщества. Цель этой статьи - рассмотреть планирование и проведение исследования урока.

**Ключевые слова:** Метод изучения урока (lesson study), учитель, профессиональное развитие, процесс преподавания и обучения.

### *Introduction*

Currently, the education system is changing its content, forms, learning and teaching methods. In this situation, the teacher is a key figure in educational reform. Teachers are responsible for the design and organization of the educational process that meets requirements of modern standards. The teacher's role in the context of educational reform is significant. Indeed, the world is changing, children are changing, which entails the emergence of new requirements for the qualifications of teachers. One of the solutions in this direction is the use of innovative Lesson Study approach as a means of developing educator's professional competencies. And it will be strengthened by teachers working together and planning lessons in order to achieve effective teaching and learning process.

In the modern world, the power of the country is measured primarily by the knowledge of its citizens, in order to bring up an educated and patriotic generation of the country, it is necessary to take deep rooted education. And this, in turn, is a big task for teachers. In order to ensure high-quality teaching, the existing teaching methods must be continuously improved and perfected. More research is required to study the process and application of the "Lesson Study" approach in teaching since it plays an important role in the growth of teachers' professional skills. A "Lesson Study" is a form of classroom inquiry in which many teachers collaborate to prepare, design, track, evaluate, and share the outcomes of a single course. "Lesson study is a straightforward term. What could be more obvious than working with other teachers to prepare, observe, and reflect on lessons if you want to enhance instruction?" Lewis (2002).

The aim of this paper is to examine the potential of Lesson Study method in the development of professional competencies of teachers and to reveal the features of its use in pedagogical practice. To achieve this goal, the following tasks were formulated:

- disclose the content of Lesson Study approach and describe the history of its occurrence and development;
- highlight the stages of implementation of the Lesson Study method;
- describe the advantages of using Lesson Study method for the development of professional competencies of teachers.

*Literature review*

The content of “Lesson Study” approach and the history of its emergence and development Lesson Study model is aimed at developing and improving teaching processes and learning. Lesson Study is a teaching method, which is characterized by a unique form of action research in the classroom, which aims to improve teachers' knowledge in the field of practice. The approach was founded in Japan in the 70s of the 19th century. Lesson Study is attended by groups of teachers who jointly plan, teach, supervise, and analyze teaching and learning, analyzing their findings. When conducting the Lesson Study in process of teaching, teachers can innovate or improve pedagogical skills. Lesson Study is a democratic way to improve practice and, in essence, is a collaborative approach in developing teachers' teaching and learning practices. As previously stated, this approach is an innovative method for transforming practical knowledge of ideas into professional knowledge of teachers as part of the ongoing professional development of teachers. Lesson Study is a rendering of the Japanese phrase “Jugyokenkyu”. “Jugyo” is Japanese for “lesson”, and “kenkyu” is Japanese for “study”. “Jugyokenkyu” covers the majority of instructional improvement strategies, characteristics shared by a group of teachers observed during a teaching session and then collaborated to analyze data (Lewis, Perry, & Murata, 2006). The study's data will be shared during the post-lesson discussion, allowing students to reflect on their teaching and learning (Lewis, 2002). This will allow teachers to collaborate in order to improve the quality of their instruction and enrich students' learning experiences. The Lesson Study features have contributed to teachers' increased understanding of the purpose of collaborative discussion and assessment. Lesson Study practice should begin while teachers are still in pre-service. Knowledge of how to learn a teaching method is knowledge of how to learn from classroom experience (Hiebert et al., 2007). Teachers' training should concentrate on how to develop professional skills (Korthagen et al., 2006), rather than on students' achievement. Lesson Study helps teachers to track their students' engagement in the classroom. Sumar et al. (2007) demonstrated the importance of Lesson Study in the growth of teachers' awareness about teaching. Lesson Analysis entails a thorough review of the technique. This approach is taken in a group, and the exercises are carried out with the cooperation of every member of the group. This collective effort represents a professional teacher learning framework capable of forming an effective teacher group (Cheng & Yee, 2012). Indeed, this strategy has the potential to strengthen teaching by ensuring that teachers grasp the concept of teaching and learning. Furthermore, pedagogical dimensions may be analyzed and defined in order to enhance teaching.

Since the early 1900s, the Japanese education system has used the “Lesson Study” form. Lesson Research, on the other hand, was extensively identified by Stigler and Hiebert in their 1999 book “The Teaching Gap” (Hock & Sam, 2010). Lesson Study is a method for conducting research on teaching in

the classroom. Since it focuses on the teaching process, this approach will investigate the creation of more substantive teaching. The exploration of the teaching process is in the form of inquiry investigation (Chassels & Melville, 2009) and systematically through the observation of teaching (Fernandez, 2002). The Lesson Study method is investigated by inquiry investigation (Chassels & Melville, 2009) and systematic observation of teaching (Fernandez, 2002). Lesson Study is a continuation of collective instructional approaches with its own distinct characteristics (Daipi, 2009). Lesson Study will help teachers learn more while also improving their teaching. Teacher learning experiences include teachers' knowledge of lesson content (content knowledge) and knowledge of teaching methods (pedagogical knowledge), all of which should be developed and derived from evaluation and reflection activities of teaching practices (Dotger et al., 2012; Lewis, 2008; Post & Varoz, 2008). It also does not downplay the significance of student learning in the teaching process. Each lesson's assessment and reflection focuses not only on teachers but also on the development of student learning. Teachers assess students' academic abilities and intellect (Cheng & Yee, 2012; Lewis, 2008). This allows teachers to carefully prepare lessons and fulfill the needs of their students. Furthermore, the Lesson Study method improves trainee teachers' creativity and critical thinking (Ong et al., 2010), especially when evaluating in-depth lessons, encouraging innovation, and reforming teaching and learning to find solutions to problems and expand comprehension skills as well as the ability of teachers and students.

The introduction of the Lesson Study method necessitates many teacher teaching sessions. The instructors, for the first time, collaborate to decide the goal of each teaching session. The first step in the Lesson Study is for teachers to meet and discuss relevant learning goals with targeted students. The teaching purpose should be realistic because students must grasp the definition in order to successfully teach it. In the second phase, teachers are asked to develop a full Lesson Plan for collaborative teaching (Lewis, 2008; Post & Varoz, 2008;) based on long-term judgments about student learning. The lesson plan includes extensive details about the various aspects of each lesson to be performed (Fernandez, 2002). It is anticipated that collaboration in the planning of this Lesson Plan would produce more thoughtful ideas. In the third stage, a teacher will teach in a simulated classroom using the proposed Lesson Plan. Another instructor will supervise and assess the instruction (Lewis, 2008; Post & Varoz, 2008). All are supposed to consider the subject matter when they build a Lesson Plan. As a result, Fernandez and Robinson proposed that the students' responses be observed using a protocol, and the results be reported (2006). Deep insights can provide detailed input to encourage teachers to better understand their students' learning (Cheng & Yee, 2012). Following the completion of the lesson, the teacher will focus on the teaching and learning and address the benefits and disadvantages of the teaching process. As a result, the Lesson Plan can be changed based on the reflections, which can be used to find shortcomings in the

learning operation (Marble, 2007). The improved Lesson Plans can then be used for the second lesson. Indeed, during the second lesson, the instructor will attempt to change the minds of students who had previously accepted the incorrect learning principle (Cheng & Yee, 2012).

As the world experience of applying the Lesson Study approach shows, the effectiveness of its use in order to improve teaching methods and increase the level of students' knowledge in main subjects in primary and secondary schools, as well as to develop conceptual pedagogical approaches, such as assessment for learning, is very high. Throughout the Lesson Study cycle, teachers working in groups (or in pairs) do the following:

- use the periodic assessment materials they collect daily to agree on the learning and developmental priorities of students;
- jointly determine the teaching method that meets the established objectives, which will be further developed or improved;
- define three “studied students”, each of which is a typical representative of a certain group of students in the class, for example: a high, average, or lower than average level of performance in the total number of students;
- jointly plan the Lesson Study, during which the results of the methodology will be used and carefully studied in the context of the results of observation of the three studied students;
- conduct Lesson Study and conduct their joint observation, focusing on the training and development of the studied students. The named procedures can be repeated and improved over several lessons;
- interviewing students to understand their opinions on Lesson Study;
- conduct a discussion on Lesson Study;
- analyze the reactions of students to the method used, their progress, learning outcomes or learning difficulties, as well as experience gained to develop teaching or learning methods in the future;
- formally present the results of using the Lesson Study approach to a wide audience of colleagues through presentation, demonstration or coaching.

Lesson Study objectives vary by school. There are three types of Lesson Study. The first type is concentrated around a single Lesson Study topic, the second - aims to improve teaching skills and the third type - to improve teacher observation skills.

In the first type of Lesson Study, all teachers collaborate with each other, choose a single topic, conduct a lesson in accordance with the topic of the study, and collect information throughout all the lessons. At the end of the school year, they publish a report. With this type, each teacher conducts a lesson not for himself, but in the name of a single research topic. Each Lesson Study includes parts of the Lesson Study school-wide process. In this case, the Lesson Study discussion is of particular importance. Each lesson should be associated with a school study topic. With each Lesson Study cycle, teachers try to get the most out of the study.

A Lesson Study topic could be:

- Development of skills for conducting discussion between students;
- The development of critical thinking of students;
- Using group or pair work;
- The use of ICT;
- Development of reading skills;
- Development of self-expression skills;
- Deepening the value of quantity using specific objects, etc.

In Japan, many schools use this type of Lesson Study. However, this type of Lesson Study requires considerable experience.

In the second type, a volunteer teacher conducts a Lesson Study on her own. The teacher chooses his topic and tries to develop teaching skills on his own. He writes a lesson plan in accordance with the chosen topic and conducts a lesson that is observed by a group of teachers. The lesson is discussed with the observers, then the teacher finalizes the lesson plan and conducts the second lesson. In this case, the teacher conducting the lesson receives feedback during the Lesson Study cycle and improves their teaching skills. Lesson Study of this type is conducted in the UK and the USA.

For example, the British scientist Dudley describes the Lesson Study as a process that develops teachers. He emphasizes the importance of collecting information from students who represent different groups of students in the classroom. By observing and interviewing students, observers understand how students learn during the lesson and how effective the lesson plan is.

American researcher Lewis describes the Lesson Study as a management process:

1. Formation of the Lesson Study group,
2. The formulation of the goal and long-term development of students,
3. Collaboration in lesson planning,
4. Conducting a lesson in which one of the group members will conduct the lesson, and the second will collect information on the training and development of students,
5. Discussion of the information collected during the lesson, the use of information and the preparation of uniform instructions,
6. Conducting a repeat lesson in another class.

This type of Lesson Study develops teacher teaching skills. Both scientists describe the Lesson Study process with a group of volunteer teachers.

With the third type, all teachers conduct a Lesson Study, while observing the lessons of others. When supervised, teachers can share experiences and develop their learning and observation skills. With this type of Lesson Study, teachers choose their topic, although it is much more useful to establish a single topic. Each teacher conducts a lesson once a year, but focuses on the observation process.

With well-developed observation skills, the teacher will be able to observe each student. Usually, when teachers observe a lesson, they focus on the teacher, not the students. Teachers must develop their observation skills in order to observe students.

In a class with different students who may be talented, gifted, or weak, the teacher must teach them all. To do this, the teacher must understand how they learn and how to understand the lesson.

Lesson Study can encourage teachers to test their assumptions and beliefs, promotes an extensive dialogue between teachers, fosters a collegial culture and professional development, focuses teachers on the cognitive needs of students, more extensively explains the training course

The effectiveness of the Lesson Study is determined by the opportunity for each teacher:

1. to see the education of children, confirmed more clearly in various manifestations and details than is usually possible;
2. see the difference between what, according to the teacher, should happen during the education of children, and what happens in reality;
3. understand how to plan the training so that as a result it meets the needs of students as much as possible;
4. implement the Lesson Study approach within the framework of the professional community of teachers, the priority of which is to help students in education and professional training of group members;
5. use the capabilities of Lesson Study in their teaching practice;
6. The development of school culture and close communication between teachers.

The main goal of this professional development is to increase students' responsibility for their own knowledge. And also help teachers to acquire knowledge and insights:

1. In their position as an instructor, they should allow students to engage in the content of the learning process while paying less attention to the explanation of the content. Choosing and planning these practical tasks is part of the course preparation process;
2. In terms of instructional techniques, students work in groups to discuss tasks, clarify material to group members, and reach consensus on responses;
3. In terms of student comprehension. Changes in teaching habits, for example, have an effect on students' activities and comprehension of concepts since they spend more time dealing with the material. As an observer, the instructor watches how students perform, what challenges they encounter, and how they resolve them. Teachers often note variations in speed and comprehension, which gives rise to the idea of class distinction.

### Conclusion

Thus, the analysis of the essence of Lesson Study method and the features of its implementation in pedagogical practice suggests that this technology has great potential for the development of professional competencies of teachers, it encourages teachers to professional cooperation in the teaching staff, focuses them on a joint study of the possibilities of applying in practice new modern teaching methods and technologies, taking into account the existing conditions in a particular educational institution. Lesson Study helps include teachers of educational institutions in effective innovation, without which the modernization of the education system is impossible. Currently, Kazakhstan is also actively introducing the use of Lesson Study in advanced training for teachers of secondary education organizations. This will allow in the near future to involve non-certified teachers in interaction with certified teachers to solve the problems of teaching practice. Implementing the Lesson Research approach within the context of instructional and methodological work would enable each teacher to actively engage in the creation of new professional experiences. Lesson study helps to improve both experienced and novice teachers. Since, as a result of joint planning, joint observation, joint analysis, teachers form a “joint view” of learning. Aspects of training in this case are considered by us not only from our own position, but also through the eyes of colleagues with whom the Lesson study prepares. In the process of lesson study, teachers work together to plan, teach, observe and analyze a lesson together. Joint planning and cooperation helped the teachers to improve their innovative teaching approaches to meet the needs of students. Analysis of lessons, showed us the possible ways to improve them, the teacher becomes more interested in the process of teaching, motivated for a new job.

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