

Lesson Study in Schools Components Perception: The Challenge of Transforming Teaching and Learning

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Abstract: Lesson Study in Schools Components Perception: The Challenge of Transforming Teaching and Learning. Objective: To explain the perceptions of school principals, teachers, staffs, and students in implementing the Lesson Study Learning Community (LSLC). **Methods:** This descriptive study uses a quantitative approach. The sample consisted of three schools, each school consisting of one principal, three teachers, two staffs, and twenty five students selected by purposive sampling. There are three instruments developed by researchers; perception of principals, perceptions of teachers and staff, and perceptions of students. All items were valid ($P < 0.05$) and all the instruments were reliable ($r_{11} > 0.40$). The data were analyzed using percentages. **Findings:** From the four groups of respondents showed a positive perception in the application of lesson study in each school. The lowest positive perception was in the group of staff respondents. **Conclusion:** LSLC in schools gets a positive perception. Despite positive perceptions, the obstacles are still high.

Keywords: Lesson study, perception, teaching and learning.

Abstrak: Lesson Study dalam Persepsi Komponen Sekolah: Tantangan Transformasi pengajaran dan pembelajaran. Tujuan: Untuk menjelaskan persepsi kepala sekolah, guru, staf, dan siswa dalam menerapkan Lesson Study Learning Community (LSLC). **Metode:** Penelitian deskriptif ini menggunakan pendekatan kuantitatif. Sampel terdiri dari tiga sekolah setiap sekolah terdiri atas (satu kepala sekolah, tiga guru, dua staf, dan dua puluh lima siswa) dipilih secara purposive sampling. Ada tiga instrumen yang dikembangkan oleh peneliti; persepsi kepala sekolah, persepsi guru dan staf, dan persepsi siswa. Semua item valid ($P < 0,05$) dan semua instrumen reliabel ($r_{11} > 0,40$). Analisis data menggunakan persentase. **Temuan:** Dari ke empat kelompok responden menunjukkan persepsi positif dalam penerapan lesson study di masing-masing sekolah. Persepsi positif paling rendah pada kelompok responden staf. **Kesimpulan:** LSLC di sekolah mendapatkan persepsi positif. Walaupun mendapatkan persepsi positif, hambatan yang dihadapi masih tinggi.

Kata kunci: Lesson study, persepsi, pengajaran dan pembelajaran.

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■ INTRODUCTION

Lesson Study is a form of teacher-led professional development, which was first developed in Japan has been proven to improve student achievement and development by providing a framework for teacher professional growth that is sustainable. Meanwhile, school reform as a form of community coaching is learning from each other, where the principal, teachers, students, and parents are the actors behind their success. The basic principle of Learning Community (LC) is “Ensuring the Learning Rights of Every Child” in which every child has their own special features, uniqueness, and potential. In addition, another basic principle is “Teachers Do Not Teach but Learn” (Sato, 2012). At first glance seems simple, but the principle contains a very deep philosophical meaning and takes a long time to make it happen (Saito & Atencio, 2015). The efforts of schools to make it happen are not without obstacles, especially in the implementation of lesson studies, especially in piloting schools or schools in the coaching of higher education institutions.

The importance of the application of lesson study in teaching and learning at school, to strengthen teacher collaboration practices in planning learning, teaching, observing, reflecting, and evaluating. Lesson studies are able to provide ease of professional communication (Coenders & Verhoef, 2019), strengthen collegial relationships (Skott & Møller, 2017) also encourage teachers to make variations in learning and in-depth teaching (Cajkler, Wood, Norton, & Pedder, 2013) by sharing expertise and equality of shared knowledge content (Lucenario, Yangco, Punzalan, & Espinosa, 2016) providing opportunities to open classes for all teachers from outside the school, not being bound by limited class activities, and being open to suggestions and opinions (Doig & Groves, 2011). Getting real learning resources in the classroom, knowledge about observing students, and committees to the

community (Takahashi & McDougal, 2016) makes lesson study get a high benefit value as an effort to improve education.

The teaching profession has a close relationship with political interests, especially education and culture in each country. In every country, in all regions and in every school there is a need to develop the teaching profession so that all students learn optimally. The development of teacher professionalism is now a global theme (Delvaux et al., 2013). Professional development in teacher education needs to be conceptualised as learning communities (Næsheim-bjørkvik, Helgevold, & Østrem, 2019). The ideas related to teaching and learning originated from the teacher’s initiative by opening classes to get improvements in learning, this quickly spread widely in the world and open up knowledge sharing. The profession is no longer determined by national interests only. In this way, the idea of opening classes and globalizing education becomes a challenge for teachers (Park & So, 2014). The relationship of professional teacher ideas globally can provide different perceptions in each country (Grimsæth & Hallas, 2016; Ono & Ferreira, 2010).

Lesson study (LS) has become a model for developing teacher professionalism in various countries., including Indonesia (Lieberman, 2009; Nurwidodo, Hendayana, Hindun, & Sarimanah, 2018; Saito et al., 2018; Yalcin Arslan, 2019). The development of LSLC in the world is increasing, not only shown from the number of practitioners in schools, but also shown from the results of research, the emergence of various Lesson study communities such as Professional Learning Community (PLC) in various countries, as well as scientific forums such as the World Association of Lesson Study (WALS). Currently, the Learning Community approach in Japan is prepared as an effort to strengthen the community to deal with the issue of Society 5.0 (Gladden, 2019; Onday, 2019). Flexibility of

adaptation is one of the factors why LS can be developed by countries outside Japan (Cajkler & Wood, 2016; P. Wood & Cajkler, 2016).

LSLC made many contributions to the advancement of education in Indonesia. The diversity of LS adaptations has implications for the emergence and development of approaches, as well as more innovative learning (Susetyarini & Miharja., 2017; Wood, 2018; Wood & Cajkler, 2016). Today LSLC in Indonesia became a government program through the collaboration of the Ministry of Education and Culture (Kemendikbud) with the Institute of Education and Labor (IEL) or *Lembaga Pendidikan dan Tenaga Kerja (LPTK)* to support the improvement of human resources, using the concept of *Merdeka Belajar dan Kampus Merdeka* in the success of Indonesia in the face of the Industrial Revolution 4.0 and society 5.0 (Kemendikbud, 2020). Unfortunately this is inversely proportional to the situation in the field, most of them do not understand the important process of LS. Various LSLC strengthening programs in Indonesia have taken place at elementary and tertiary levels. However, accurate data is still needed related to the implementation, especially in schools that are just starting lesson study. So that research is needed related to how to adaptation lesson study for schools, teacher teaching practices through LSLC, and student success in learning. In addition, LSLC research in Indonesia is still lacking in variation because it is still dominated by the implementation of the Lesson study, so another perspective is needed to provide an overall picture of the development of LSLC. This is what makes this research important to do.

Efforts to improve the quality of education have been undertaken by the government through the Subject Teachers' Consultation (STC) or *Musyawarah Guru Mata Pelajaran (MGMP)*, Teacher Working Groups (TWG) or *Kelompok*

kerja Guru (KKG), and School Principal Work Groups (SPWG) or *Kelompok Kerja Kepala Sekolah (K3S)* among others; to make changes or revisions to the curriculum, Partnership Programs between schools and Higher Education Institutions, projects improvement of teacher and lecturer qualifications, and many other programs. The implementation of Lesson Study in Indonesia has been integrated in the central government program, the Beginner Teacher Induction Program (BTIP) or *Program Induksi Guru Pemula (PIGP)*. PIGP was developed and implemented using the Lesson Study approach to accelerate the professionalism of novice teachers (Copriady, 2013). Pilot schools are also carried out as an effort to initiate educational institutions to learn to develop Lesson Study as a means of improving the quality of learning (Nurwidodo et al., 2018; Hindun, Nurwidodo, Wahyono, Miharja, & Rais, 2018). These efforts have been carried out intensively, but often are not in line with learning expectations. Various research results on improving the quality of learning and the professional community through Lesson Study for Learning Community (LSLC) practices report good results in various regions in Indonesia (Latifa, 2019; Lukitasari, Susilo, & Corebima, 2014; Nurwidodo et al., 2018; Setyawan, Permana, & Latifa, 2019; R. E. Susetyarini, Permana, Gunarta, & Setyawan, 2019).

However, these various studies still rarely explain the various perception and obstacles to implementing LSLC without exception at the school level. In this regard, organizing LSLC requires school involvement (Saito & Sato, 2012). This information is very important for schools that are just starting LSLC practices and mentoring institutions. Based on the results of previous studies show that many schools implement LSLC, but the involvement of all school components is still not optimal (Setyawan et al.,

2019). This certainly gives a signal that problems and causal factors must exist, starting from the process, management, and policy makers.

Although LSLC in Malang and Batu cities developed well through the mentoring efforts of higher education institutions (Hindun et al., 2018; Setyawan et al., 2019), efforts are still needed to familiarize Lesson study activities by school principals, teachers, staff, and students to get an overview of lesson study activities, reporting activities, and monitoring through data to be more measurable and sustainable. Furthermore, this research is important to be done to provide an explanation of the perceptions of principals, teachers, staff, and students in implementing Lesson Study Learning Community in schools.

■ METHODS

This descriptive study with quantitative approach was conducted in July-August 2019. Three schools were chosen by purposive sampling technique i.e. MTS Muhammadiyah 1 Malang, SMP Muhammadiyah 1 Malang, and SMP Muhammadiyah 8 Batu. Each school consists of one principal, three teachers, two staffs, and twenty five students as research sample. The school was chosen because all three of them have already applied lesson study and were a piloting school fostered by Department of Biology Education, Faculty of Teacher Training and Education (FTTE), Universitas Muhammadiyah Malang (UMM).

The questionnaire was chosen as an instrument for collecting data in this study. There are three questionnaires used, namely; a) the principal's perception questionnaire about the LSLC policy at school, b) the perception questionnaire for implementing LSLC at school by teachers and staff, c) and the special questionnaire for the perception of learning through LS by students (Appendix 1). Each questionnaire consisted of 20 items with five types of indicators, namely; 1) Lesson Study knowledge as an effort to realize Learning Community; 2) Lesson study policy in schools as a learning community effort; 3) Involvement of school components (principals, teachers, staff, and students) in lesson study; 4) Lesson study benefits for school components (principals, teachers, staff, and students); 5) Problems with implementing LSLC in schools. Data collected were analyzed using percentages. The questionnaire was developed by researchers themselves. Before being tested on a research sample, a questionnaire was first tested for validity with the Pearson product moment and reliability with Cronbach Alpha. All items used in the questionnaire were valid ($P < 0.05$) and all the instruments were reliable ($r_{11} > 0.40$). The collected data is then analyzed using descriptive statistics, namely percentages. The distribution of indicators from the three questionnaires is presented in **Table 1**.

Table 1. Distribution of indicators for each lesson study perception questionnaire

No	Questionnaire type	Indicators				
		1	2	3	4	5
1.	Principals' perceptions of LSLC policy at school	✓	✓	✓	✓	✓
2.	Perception of the implementation of LSLC in schools by teachers and staff	✓	✓	✓	✓	✓
3.	Perception of learning through LS by students				✓	

■ RESULTS AND DISCUSSION

Principal's Perception about LSLC's policy

Based on a questionnaire analysis distributed to principals about LSLC policies in schools, it shows that each indicator gives a positive perception. Unfortunately, indicators of problems with implementing LSLC in schools also show a high percentage. The results of the principal's perception of the LSLC policy in schools are presented in Figure 1.

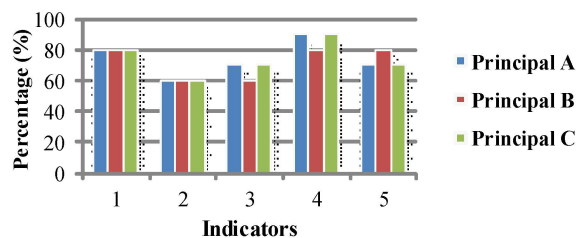


Figure 1. Principals' perceptions of LSLC policies at schools

Knowledge about LSLC can be said to be good, because each school has often received training, workshops, and various forms of collaboration on mentoring Lesson studies. In line with Nurwidodo et al., (2018) stated that LS activities in Batu were packaged in the LSLC program in collaboration with the Education and Culture Office of Batu City with the LS team of the FTTE-UMM, and Benesse Japan since 2015. However, this matter cannot guarantee that the implementation of LSLC in schools is good, this finding is confirmed through the efforts of schools to make LS as a policy to achieve a learning community that is not yet fully operational. Although each school has often carried out LS activities, unfortunately there is no written policy that regulates the implementation of LSLC in schools, so that it can provide a gap for various problems, especially the sustainability of LSLC. The 'top down' policy is important because it is binding and is a form of commitment in carrying out LSLC practices (Saito, 2012; Takahashi &

McDougal, 2016). From the results of the study the benefits of LS for school principals are not immediately felt, however, the benefits of LS for schools are manifested into various forms such as cooperation between educational institutions and improvement of the education system in schools.

Learning with each other in the Learning community must be maintained and there are no barriers in practice, especially between principals and teachers, and between teachers, so that a culture of collegiality is formed (Saito & Sato, 2012; Sato, 2012). In addition to personal commitment and not being directly involved by the school principal, independent LS development strategies remain an obstacle. The principal's commitment is very important, because in addition to being a school representative it also makes it easy to transfer the policies and all the information underneath (Saito et al., 2006), this can be seen from the high problems that arise in each school. It has been confirmed from several schools, that the implementation of LS has not been entrenched; this can be overcome by modifying the LS in accordance with the characteristics of education and the learning process. Modifications are common in countries that develop LS, which need to be considered is the participation of the teacher team and the learning needs of students (Boonsena, Inprasitha, Changsri, & Matney, 2019). Schools have not conducted LS independently, and the process of guidance by related agencies has not been maximized. In general, constraints in various schools regarding the implementation of LS are less than the maximum are time and workload constraints (Mon, Dali, & Sam, 2016). The facts show that there is already collaboration between schools, education offices, and several universities (Hindun et al., 2018). However, its involvement has not yet reached how LSLC becomes part of individual professional responsibility and becomes a major part of the education system.

Teacher's Perception about the Implementation of LSLC at Schools

The values of collegiality and equality among the teachers that appear in the practice of LSLC take a long time, because the involvement and openness of the teacher is a measure of success. Based on the results of the study presented in **Figure 2**, shows that the implementation of LSLC in schools by teachers get a positive perception, but indicators of problems with the implementation of LSLC in schools also show a high percentage.

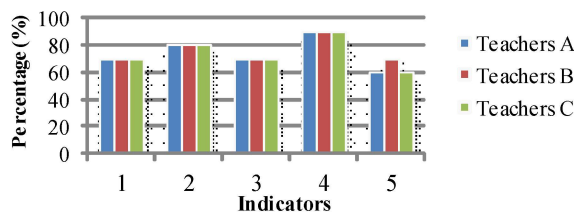


Figure 2. Perception of the implementation LSLC at schools by teachers

The findings of this study indicate that Lesson Study makes the teachers involved able to support new dimensions and perspectives in the context of pedagogy in schools, this finding is in line with the results of Wood & Cajkler (2016), research, which explains that LS encourages in-depth considerations of pedagogy by teachers. The research also shows that teachers recognize that lesson study fosters a desire to develop more skilled professionals. Lesson study in addition to increasing collaboration, also contributes greatly to teacher learning by making them more professional (Aki Murata, Laura Bofferding, Bindu E. Pothan, Megan W. Taylor, & Sarah Wischnia, 2012; Coenders & Verhoef, 2019; Lieberman, 2009). Another finding is the problem of implementing school-based LSLC in addition to time and workload constraints, namely regarding the amount of involvement and carrying capacity,

while factors related to teachers are mainly influenced by personal characteristics such as; attitudes, perceptions, and commitment to the teaching profession (Saito et al., 2018; Yalcin Arslan, 2019).

In fact, school assistance by universities has not been able to guarantee that LSLC runs well and is developing, the problem is the diversity of teachers across fields of study in LS activities, as if there are barriers or restrictions, not many other schools are involved in open classes. This is possible because in addition to the absence of a fully supported school policy, partner cooperation has not yet reached the institutional level or is still personal. In line with the results of the study Akiko (2015); Espinosa & Tameta, (2018), explaining that several factors that prove teachers cannot demonstrate collaboration are leadership and shared roles, teacher research documentation and dissemination, and voluntary participation. These factors are found to be interrelated and intertwined with each other and have had a significant influence on teacher commitment in the teaching process and indirectly, this affects the sustainability of LSLC.

Modification of LS is rarely done by teachers or schools, both in terms of content and implementation strategy of LS, for example, there is no LS team coordinator in schools, carrying capacity of facilities, and preparation and adaptation between other components. Learning innovation through LS apart from focusing on student learning problems, is no less important in the carrying capacity of its implementation (Boonsena et al., 2019). "Akihiko Takahashi" provides a clear idea of how LS can be used as a process to improve teaching and learning. He reminds us that we need to distinguish between two types of professional development programs; one to learn new ideas and knowledge, the other is practicing how to combine new ideas and procedures in

various situations (Inprasitha, Isoda, Wang-Iverson, & Yeap, 2015). Lesson studies encourage teachers to think more deeply about how and why students learn, by improving teaching practices and helping to be better reflective practitioners of teacher teaching (Bayram & Býkmaz, 2018).

Staff Perceptions about the Implementation of LSLC at schools

Based on the results of the study show that the implementation of LSLC in schools by staff get less positive results by staff in each school, this can be seen in each indicator, which is presented in Figure 3.

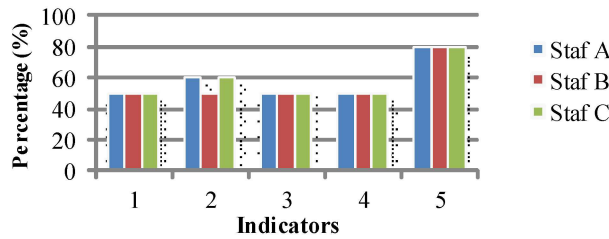


Figure 3. Perception of the implementation LSLC at schools by staff

Based on Figure 3, shows the implementation of LSLC in schools by staff get a less positive perception, because schools have never directly involved in LS activities. The involvement of school staff is only at the administrative level. However, in general they support every school policy, not least the efforts of schools to make lesson study a school policy to reach learning societies. The study also revealed that efforts to implement LSLC must

reflect comprehensive feedback. Facilitating collegiality in various components of the school will help create commitment and loyalty of staff, thereby eliminating negative impressions in the process of mutual learning (Takahashi & McDougal, 2016).

Perception of Learning through Lesson Study by Students

Based on the results of the study showed that students have a positive perception of learning through LS. The percentage of results is presented in Table 2.

Table 2. Percentage of student statement results about learning through Lesson Study

No	Statement	Number of Students (75)	Percentage (%)
1.	I have heard and found out what lesson study is from the teacher or the school	51	68.00
2.	Teaching is more interesting compared to the previous method	68	90.67
3.	I used to be in class there were many teachers watching	69	92.00
4.	Understand the lesson better and dare to ask	67	89.33
5.	I pay more attention to the teacher and friends when studying	65	86.00
6.	Learn more using media, direct experiments, and fun	67	89.33
7.	In my class I am more open to other friends	65	86.00

8.	I am more willing to communicate with other friends	68	90.67
9.	The teacher is more timely when teaching	57	76.00
10.	The teacher teaches diligently	69	92.00
11.	I help other friends when experiencing difficulties	69	92.00
12.	I cannot complete the task taught by the teacher	35	46.67
13.	My learning motivation has improved from before	65	86.00
14.	How to teach is not convincing compared to the previous method	20	26.67
15.	Teacher really helped me to understand the material patiently	72	96.00
16.	I prefer teachers to teach with lectures	15	20.00
17.	The teacher provides adequate training to pass the exam	65	86.00
18.	I can't study independently and be quiet while studying	10	13.33
19.	The teacher is skilled and masters the content of the material being taught	70	93.33
20.	I am more often noticed and guided by the teacher while studying	70	93.00

Students prefer learning activities that are more interesting, based on the results presented in **Table 2**. Lesson Study has provided many changes in their learning process. Students give more appreciation to teachers who spend their time to provide opportunities to understand more lessons, gain experience in solving problems, increase self-confidence, be happy in learning, and benefit their peers (Aki Murata et al., 2012). In line with the results of research Boonsena et al., (2019) states that, by focusing on solving student learning problems, teachers are more enthusiastic and willing to spend time to provide happiness, most of the time in lessons is given to solving students' problems, teachers find that students are confident and happy in learning, teachers feel confident and useful when they have observers watching their class. Lesson Study can positively influence student learning if the teacher consistently participates in it over a long period

of time (Bayram & Býkmaz, 2018; Cajkler & Wood, 2016).

Other findings from the results of this study also reveal that, innovation in learning through LS gets a positive perception. Innovation competence is not limited to learning outcomes, but teachers provide opportunities for students to further develop their personality. In line with the results of Bas & Perry (2019), states that the increase in the values of student innovation can be supported by the conditions of the learning environment. The independence of learning in gaining knowledge (Lewis & Perry, 2017). Students' sense of responsibility will arise when they are faced with assignments that must be completed within a certain time, LS provides an alternative learning approach so that students are not only able to complete learning tasks, but are able to answer learning problems (Bjuland & Mosvold, 2015).

■ CONCLUSIONS

Based on the results of the study it can be concluded that the implementation of LSLC in schools get positive perceptions, although getting positive perceptions the obstacles faced by each school are still high including the lack of habituation of LS activities in daily learning; Engagement and collaboration between principals, teachers and staffs are still not optimal; School policies have not fully supported all activities and included all components of the school. The results of this study indicate that the practice of Lesson Study for Learning Community in schools requires the involvement of all parties. Other parameters such as the number of respondents and the elaboration of indicators on questionnaires need to be developed in future research to reveal more comprehensive perceptions. The addition of schools is also recommended so that it affects the perception of lesson study implementation so that it becomes a long-term recommendation that must be analyzed.

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