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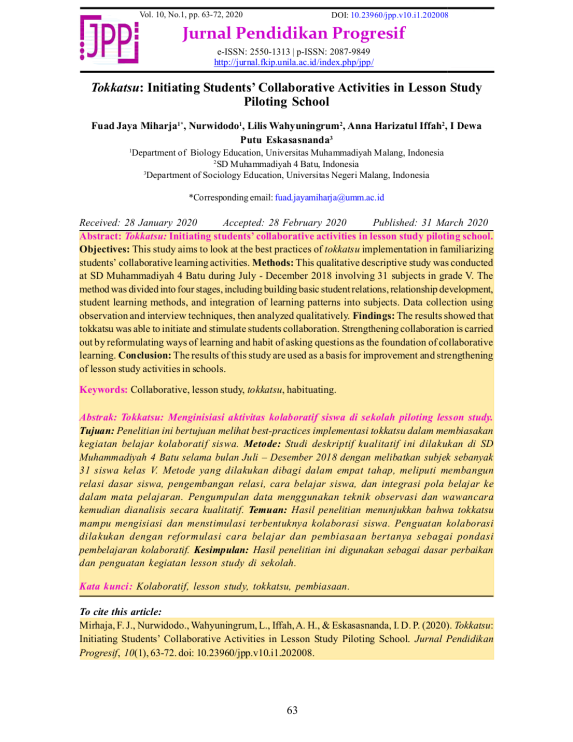

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Tokkatsu: Initiating Students' Collaborative Activities in Lesson Study Piloting School

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Keywords: Collaborative, lesson study, *tokkatsu*, habituating.

Abstrak: Tokkatsu: Menginisiasi aktivitas kolaboratif siswa di sekolah piloting lesson study. ***Tujuan:*** *Penelitian ini bertujuan melihat best-practices implementasi tokkatsu dalam membiasakan kegiatan belajar kolaboratif siswa.* ***Metode:*** *Studi deskriptif kualitatif ini dilakukan di SD Muhammadiyah 4 Batu selama bulan Juli – Desember 2018 dengan melibatkan subjek sebanyak 31 siswa kelas V. Metode yang dilakukan dibagi dalam empat tahap, meliputi membangun relasi dasar siswa, pengembangan relasi, cara belajar siswa, dan integrasi pola belajar ke dalam mata pelajaran. Pengumpulan data menggunakan teknik observasi dan wawancara kemudian dianalisis secara kualitatif.* ***Temuan:*** *Hasil penelitian menunjukkan bahwa tokkatsu mampu mengisiasi dan menstimulasi terbentuknya kolaborasi siswa. Penguatan kolaborasi dilakukan dengan reformulasi cara belajar dan pembiasaan bertanya sebagai pondasi pembelajaran kolaboratif.* ***Kesimpulan:*** *Hasil penelitian ini digunakan sebagai dasar perbaikan dan penguatan kegiatan lesson study di sekolah.*

Kata kunci: *Kolaboratif, lesson study, tokkatsu, pembiasaan.*

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INTRODUCTION

Lesson study (LS) as a model of teacher professional development has long been adopted and implemented in learning activities in Indonesia (Cajkler & Wood, 2016; Saito et al., 2015; Suratno, Ni'mah, Zulkifly, & Nur'aini, 2009; Susetyarini & Miharja, 2017). Furthermore, LS was spread in various regions in Indonesia, such as Padang (Hardinata & Putri, 2019), Bali (Sudirtha, 2017), Ternate (Mas'ud et al., 2019), Malang and Batu (Hindun, Nurwidodo, Wahyono, Miharja, & Rais, 2018). Implementation of LS in Batu has been carried out since 2016 through collaboration between the Batu City Education Office and the University of Muhammadiyah Malang (Nurwidodo, Hendayana, Hindun, & Sarimanah, 2018). This collaboration is carried out by appointing LS piloting schools both at the elementary and secondary level.

SD Muhammadiyah 4 Batu is a piloting school that consistently reforms learning and schools through the application of LS. Full support from the school management and parents is one of the drivers of this movement (Wilkins, 2015). This reform has an impact on teachers' commitment to providing professional services in order to provide space for student development (Doig & Groves, 2011; Julien & Daniel, 2017). However, school reform efforts often encounter many obstacles and challenges, one of which is the lack of students' collaborative skills (Chenault, 2017; Chong & Kong, 2012; Lieberman, 2009). Based on observations in class V during the period July - November 2018, the obstacles faced in implementing LS and school reform, among others, students are not accustomed to communicating with friends, both in small groups and in full class activities. The situation always repeats during open class activities and the teacher's attention. Whereas, in 21st Century learning, relationships between students are variables that need to be developed so that students can continue to learn and build relationships (Bellanca & Brant, 2010; Dwyer, Hogan, & Stewart, 2014; Talat & Chaudhry, 2014).

The success of learning in the 21st Centuryis not only determined by how much and how deep students understand the subject matter provided (Larsson, 2017), but also on other things that are not as important as students' collaborative abilities (Bower & Richards, 2006; Cajkler, Wood, Norton, & Pedder, 2013; Pang, Lau, Seah, Cheong, & Low, 2018). In this case, learning in the classroom is directed not to always and always focus on the material but also in other domains such as how to learn students (Hayati, 2014). Teachers need to give a portion of the balance of student learning holistically including student collaboration in learning.

One effort that can be done to build collaborative capabilities is to provide additional activities that can support this (Asanuma, 2012; Bryan, Glynn, & Kittleson, 2011). In Japan, this additional activity is known as *tokubetsu katsudo/tokkatsu* (Japan International Cooperation Agency, 2017; Tsuneyoshi, 2012; Tsuneyoshi, Kusanagi, & Takahashi, 2016). This activity is carried out in the learning process but is not bound by certain subjects. The *tokkatsu* activity is a strategic step in balancing student development as a whole, which not only has good cognitive skills but is also supported by emotional maturity, social, and balanced communication skills (Tsuneyoshi, 2012).

Referring to the lack of teacher knowledge about implementing *tokkatsu* as an initiation of collaborative activities, SD Muhamadiyah 4 Batu implements *tokkatsu* activities to build relationships between students in the learning community. This collaborative habit is carried out integrally in the school curriculum but is not directly related to the subject (special non-subject

activities). This paper was made to describe the implementation of *tokkatsu* in SD Muhammadiyah 4 Batu as an effort to familiarize collaborative attitudes among students.

METHODS

This study is a qualitative descriptive study to get a picture of how the impact of applying collaborative habituation activities among students through *tokkatsu* activities (Creswell, 2009). The *tokkatsu* activity was held in grade V of SD Muhammadiyah 4 Batu during December 2018. The research subjects were 31 students and a class teacher. Technically, the *tokkatsu* activities are carried out outside regular school hours. The program is designed to meet several learning indicators, including building basic relationships, developing relationships, ways of learning, and integrating learning patterns into subjects (Table 1).

Information collection techniques in research carried out by observation and interview methods. The instrument used was adapted from Tsuneyoshi (2012) and Tsuneyoshi et al. (2016). Research informants are all the students involved as well as a class teacher. The implementation of *tokkatsu* activities will be observed about the growth of collaboration skills between students during learning. Next, interviews with class teachers were conducted to obtain teacher's views on the development of students' collaborative abilities after the *tokkatsu* activities. All data obtained were analyzed using a qualitative data analysis model (Miles, Huberman, & Saldana, 2014).

RESULTS AND DISCUSSION

Students' collaborative skills have a fundamental role in supporting the success of the learning process. Furthermore, students' mastery of these skills has a broader impact not only in the sphere of learning but also in implementing these collaborative activities in their daily lives (Cajkler et al., 2013; Lewis, 2009). This is inseparable from the large role of collaborative skills in determining the success of life in the 21st Century (Arimoto & Clark, 2018; Scott, 2015).

The implementation of *tokkatsu* at SD Muhammadiyah 4 Batu is intended as a supplement to LS activities that have been carried out. This collaborative supplement contains activities that are expected to be able to build and develop relationships between students as a basis for collaborative skills (Japan International Cooperation Agency, 2017). Relationship-building activities are carried out in several ways, such as forming groups, completing challenges collaboratively, caring for friends, helping friends who are having difficulties, asking friends when they are having difficulties.

Table 1. The implementation stages of *tokkatsu*

No	Stages	Aims
1	Building relationship	- How they realize the fun and efficiency of relationships
2	Relationship development	- Increase collaboration - Students are accustomed to having dialogue (not discussion)
3	How to learn	- Accustomed to using a whiteboard - Getting used to ask questions
4	Integration of learning patterns in subjects	- Mathematic challenge

The results showed that students began to recognize the meaning of relationships with others. This is evident from the tendency of students to establish communication with colleagues. At first, it appears that male students are not accustomed to working with female students in making circles. Although all students are asked to make one large circle, students prefer to make two separate circles (Figure 1a). One circle contains only male students, while the other circle contains only female students. The ability to collaborate between students and students is trained by means of groups of students being asked to approach groups of students and ask to be able to join. This group of students' requests was initially rejected because the students felt uncomfortable and unfamiliar with the requests of the student groups. In the end, all students and students want to join. They join and collaborate to make circles in accordance with the date of birth (Figure 1b).

Collaboration between students is strengthened through the next challenge, which is to throw eggs in a circle. The students sit together

(a) (b)

Figure 1. (a) Students tend to make groups based on gender only; (b) Students want to join and collaborate to make circles based on their date of birth

in a circle and then are asked to throw toy eggs that are brought by each to their next friend. The challenge starts with students in a circle of 8 people (Figure 2a) and gradually increases to a circle of 13-15 people (Figure 2b). In order to solve this challenge well, students are asked to discuss the right strategy so that they can throw eggs to friends.

The impact of this activity is students want to work together not because of the teacher's command but because of the emergence of a feeling of security and comfort between them. Security and comfort are manifestations of psychological situations experienced by students (Arimoto & Clark, 2018; Gokhale, 1995; Smith & MacGregor, 1992). The growth of a warm

(a) (b)

Figure 2. (a) students throw eggs in small groups; (b) students join in larger groups

psychological atmosphere among students shows that the teacher does not only focus on cognitive achievement efforts but also other things that contribute to student achievement. This positive situation is able to inspire students to want and try to change their way of learning, albeit slowly, from individual learning to collaborative (Pang et al., 2018).

How the psychological atmosphere of students can be awakened, this is certainly an interesting question to discuss. At the stage of relationship development, students are exposed to activities, which they are not aware of, requiring them to strengthen relationships with their peers. Students are asked to form heterogeneous groups to solve the challenges of saving eggs. Students in groups are asked to save eggs that will be dropped from a height. The teacher provides each group with an egg, several pieces of newspaper, a pack of straws, and sticky tape. Students in groups are asked to collaborate, discuss the best strategies for saving eggs with existing equipment. The strategy chosen by the students was the best strategy according to them, so they looked very happy when the eggs did not break even after being thrown from a height (Figure 3a).

(a) (b)

Figure 3. (a) The students' expressions when they learned the strategy they chose was able to save the egg from breaking even from falling from a height, (b) Communicate through playing rock-paper-scissors suits

The results process of forming and developing relationships is then followed up by introducing ways of collaborative learning. Some things that were done were 1) the challenge of collecting signatures, 2) composing words, and 3) asking questions. The implementation of these three challenges shows the tendency of students to follow and enthusiastically engage in the process. When collecting signatures, the teacher asks students to collect as many friends' signatures as possible by making suits. The losing party is required to sign the board carried by the winner. Signatures are collected freely but must come from outside the group itself. The student with the largest collection of signatures is the winner of this challenge. Enthusiastically, students respond to this challenge by continuously looking for friends over a certain period of time (Figure 3b).

The second step is to provide a challenge to arrange words in groups. Each group consists of four heterogeneous students. The teacher asks students in the group to write down as many animal words as possible. Every written word must be linked to the next word by using the last letter of the first word as the first letter of the second word. These challenges must be solved sequentially from the first student to the fourth student and keep repeating within a certain period of time determined by the teacher.

The results showed that the implementation of the second challenge had a positive value in

the form of growing mutual support, mutual trust, and collaboration between students. Students in groups enthusiastically complete challenges and obtain the highest number of words. Figure 4 shows that students collaborated with each other, shown the support given by students to their friends who have difficulty completing challenges. Student collaboration arises in the formulation of strategies to solve the challenges faced.

Figure 4. Students provided mutual learning support to complete the challenge

The growing sense of mutual support between students shows that the learning environment created by the teacher and students leads to positive things. This is able to position all students in the group as a mutually reinforcing support system (Faryadi, 2007; Tsuneyoshi, 2016). In another perspective, this reflects a strengthening of the socio-emotional aspects of students (Gokhale, 1995; Japan International Cooperation Agency, 2016; Pang et al., 2018; Smith & MacGregor, 1992; Tsuneyoshi, 2012).

The growing sense of mutual support, trust, and cooperation in the learning environment of these students must be captured as a potential that is sufficient to be presented in the learning process. In other words, all three must be facilitated and familiarized as a way of collaborative learning. Some of the steps applied in this activity are the habit of using whiteboards and studying the question line. In this section, students are accustomed to building dialogues about things that are fun for them, such as favorite fruit, the most memorable vacation spots, and so on. The teacher asks students to pair up and dialogue with their partners about what is fun in turn (Figure 5a and 5b).

Habituating students with questions is the same as creating a learning environment that is able to stimulate students to engage in dialogue activities with partners who are the interlocutors. Open-ended question stimulation can put students in being able to explain and talk more than the other person. This is done to answer the information needs of the questioner. These reciprocal activities are gradually able to position students in pleasant dialogue situations. This pleasant atmosphere must be pursued as a habit that always arises in the process and way of student learning so that in the end, the questioning

(a) (b)

Figure 5. (a) A male student enthusiastically explained the shape of his favorite mango to female; (b) A female student tried to explain her favorite grapes to male with a hand gesture

skill is not an ornament that appears during open class but instead becomes a culture of asking students.

The importance of learning that empowers questioning skills has been widely researched and is the focus of discussion by learning experts. This cannot be separated from the essential role of these skills as the basic skills needed by students to be able to survive in the 21st century (Tsuneyoshi, 2012). In fact, according to several other references, questioning skills are closely related to the success of collaborative learning (Pang et al., 2018; Smith & MacGregor, 1992; Tsuneyoshi et al., 2016).

The last step carried out in this research is to implement the best practices of the three steps that have been taken as a new pattern in the subject matter. In this activity, the mathematic challenge is used as a model of integration of new learning patterns in the material. Students are faced with the challenge of completing numbers in certain patterns using simple arithmetic operations. This challenge is solved collaboratively in groups; in addition, students are free to choose their own method of resolution.

The results of the implementation of the activity showed that not all students in the group were able to solve the challenges well, but there were some students who showed their best abilities unexpectedly. Students who were initially indicated as students who were not interested in mathematics and were not able to finish well were able to complete the challenge well. Interestingly, students have been able to integrate collaborative learning patterns to solve these challenges (Figure 6).

Figure 6. Mathematic challenge: A Female student is actively discussing to solve the number game challenge

This initiation of collaborative activities is believed to be an effective way to create a conducive learning environment for students so that they get more space for learning, discussion, and communication to solve the problems encountered (Chenault, 2017). The integration of learning patterns also provides different perspectives for students on how to solve these problems (Lewis, 2009). By collaborating, students will be confronted with new ways, new ideas, and even new hopes that may be very valuable to them (Angelini & Alvarez, 2017; Chong & Kong, 2012; Myers, 2012; Rock & Wilson, 2005; Wood & Cajkler, 2016).

CONCLUSIONS

Tokkatsu, as a complement to LS activities in SD Muhammadiyah 4 Batu, provides the basis for the formation of relationships between students, the development of more intimate relationships through increased questioning skills, and implementation in learning activities. Fostering basic relationships between students is very strategic in efforts to enhance student collaboration. The best practices gained from this research need to be followed up with innovative activities and habituation to strengthen students' abilities in collaborative learning.

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