

## IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS IN MATCH LEARNING FOR TEACHERS' COMPETENCE

HERRY AGUS SUSANTO\*, MEIDAWATI SUSWANDARI, DEWI KUSUMANINGSIH, SRI MULYATI

**Abstract:** This study aims to describe the implementation of lesson study through Zoom meetings in match learning for teachers' competence at the Sukoharjo district elementary school. Using qualitative approach, this study involved 1 teacher and 19 fourth-grade students of elementary school. The data were analyzed using interactive technique. It can be concluded that there are three stages in implementing lesson study through Zoom meetings in match learning for the teachers' competence At the Sukoharjo district elementary school, namely Plan which includes the lesson study groups compiling table plans for lesson study activities, day and date, learning materials, activities (pre-activities, main activities, and post-activities), preparation of learning instruments in the form of one sheet of lesson plans, learning media via Zoom Meetings application, model teacher, observing teacher and lecturer, observation sheet, and assessment/evaluation sheet. In the Do stage, the teacher implemented match learning with theme 8 sub-theme 2 according to match learning steps with scientific approach that was packaged virtually using a Zoom Meetings. In the See stage, some of the findings from the observers which included several students who were focused, confident, and following the teacher's instructions were displayed. In addition, the impact felt by the teacher after implementing the lesson study was the increase in pedagogical, professional, social, and teacher personality competence.

**Keywords:** lesson study, match learning, zoom meetings, teacher competence

Industrial revolution 4.0 requires teachers to use digital media in transferring information and developing learning media. This is the basis for developing teacher competence. A teacher is called a professional teacher if he/she could achieve the best possible performance of the teaching profession in achieving his/her professional duties as stated in Law no. 14 of 2005 Chapter IV Article 20 (a) concerning the professional duties of teachers and lecturers to plan, carry out learning, assess, and evaluate learning outcomes. The optimal work of a teacher must also be in line with educational goals and be integrated with school components (school principal, teacher, employee, and student) (Karmizan, 2018; Syafruddin, 2015).

Teachers who have a role and duties as an educator must have standard competencies including pedagogical, personal, social, and professional competencies. Teacher competence is the ability of a teacher to master knowledge, skills, values, and attitudes in carrying out their duties and responsibilities (Tabi'in, 2017). A teacher will be able to carry out their duties well if they are skilled in their field of expertise. Teachers must have teaching competence to create an effective and enjoyable learning environment (Huda, 2018; Muthmainnah & Jayengsari, 2019). Teacher professional competence will make the quality of education in Indonesia even better (Karmizan, 2018; Sahidu, H; Gunawan; Kosim; & Rahayu, 2018).

The first competency is pedagogical competence, the ability to manage student learning including understanding of students, designing and implementing learning, evaluating learning outcomes, and developing students to

## IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS IN MATCH LEARNING FOR TEACHERS' COMPETENCE

actualize their potentials. The second is professional competence, the ability to master the learning material broadly and deeply to guide students. The third is social competence, the ability of a teacher as part of the community to communicate and interact effectively with his/her students, fellow teachers, education staff, parents/guardians of students, and the surrounding community. The fourth is personal competence, having decisive, stable, mature, wise, and dignified personalities, being a role model for the students, and having noble character (Ahmadi, F & Hamang, 2017; Thamrin et al., 2018).

To reveal the main causes of low teacher competence, it is necessary to conduct research on various other aspects because education is a system in which every component in education is related to one another (Susilowati, Indah; Sutanto & Daharti, 2013). Based on the system, low teacher competence is caused by other components such as teacher access to improve their competence. Therefore, teacher competence can be improved by paying attention to teacher professional development planning based on the actual needs of the teacher, the context, and characteristics of the school through lesson study (Maria.S et al., 2013). Lesson study is a model of teacher professional development through collaborative and sustainable learning based on the principles of collaboration and mutual learning to build a learning community (Hendayana et al. in Ratnawati, 2019).

The implementation of lesson study includes the Plan, Do and See stages carried out collectively, collegially, and continuously to improve the quality of learning (Andini in Wahyono et al., 2016). Collective collegial implementation involves almost all components in learning including the teacher team as a model and an observer (Lestari, 2018). Students become actors in lesson study activities. This is to give students space to develop skills in analyzing problems, processing, and delivering them in front of the class in the form of Plan chapters. Lesson study is implemented in 3 rounds (cycles). At the Plan stage, lesson plan is discussed in the form of Plan chapters based on discussions with all components present in the open Plan. The Do stage includes the implementation and observation of learning activities based on the Plan chapters prepared to be reflected later in the See stage (Hidayat et al., 2019; Hikmawati et al., 2018; Wahyono et al., 2016).

The implementation of this model is based on a continuous process and effort. The learning process occurs naturally in real life. This natural condition makes students not quickly forget the knowledge gained. The teacher must change the method of transferring knowledge, from classical (delivery of material) to explorative (understanding of the meaning of science). Student activeness in exploration was not constrained by the presence of observers observing the classroom learning process. Observers have an important role in observing the learning process (Ramdhani, S & Arizona, 2019). According to Abizar, lesson study is implemented as a systematic process used by Japanese teachers to test their teaching to boost learning outcomes (Supriatna, 2019).

In the current pandemic, direct educational interactions between teachers and students in the classroom are hard to apply. However, this can be overcome by using video conference in the form of online learning via Zoom Meetings application (Fitriyani et al., 2020; Monica & Fitriawati, 2020). Zoom Meetings can be categorized as online learning media that allows the delivery of teaching materials to students using Internet. Online learning media as an alternative to learning based on electronics provide many benefits, especially for

the educational process that is carried out remotely (Pratiwi & Wahyuni, 2019). Making online learning media requires several aspects of online learning such as speed in accessing the internet or network, limited bandwidth, costs for internet access, and background knowledge regarding readiness to take part in learning (Suhery et al., 2020).

At the Sukoharjo district elementary school, the implementation of match learning through Zoom Meetings, especially in implementing lesson study, has not been done before. Based on the interviews in the match learning process with the scientific approach used by classroom teachers at elementary school, the activities that occur in class regarding student learning activeness are not as expected. This can be seen in the learning that has not involved much student activity because the teacher only sends videos taken from YouTube and sent them to the WhatsApp group of guardians of students. In addition, the delivery of material is in the form of text and assignment questions given to students through the WhatsApp Group. Thus, the teacher only uses an expository learning strategy where the learning is only teacher centered. This makes students only know and understand unilaterally from the understanding of students who are accompanied by their parents at home.

In the end, match learning activities during this pandemic made the teacher-centered learning atmosphere boring for students. Based on these problems, the researcher conducted a study to describe the implementation of lesson study through Zoom Meetings in match learning for teachers' competence at the Sukoharjo district elementary school.

## METHOD

This qualitative study involved 1 teacher and 19 fourth-grade students at the Sukoharjo district elementary school. The number of observers involved was 2 lecturers and 6 teachers. The instruments included observation sheet for open class activities and lesson learned reports.

The research objects were lesson study, teacher competence, and match learning learning through Zoom Meetings. The data were collected using observation and documentation. The research instrument used included observation and documentation sheets. The observation sheets contain questions related to the implementation of lesson study which consists of 3 sections (Plan, Do, and See). Meanwhile, the documentation sheet is in the form of photos of the 3 lesson study stages.

The interactive model by Miles and Huberman (1994:12) was used to analyze the data. This model consists of data collection, data reduction, data presentation, and conclusion drawing or data verification. There were four activities in data analysis that occur simultaneously, namely data collection, data reduction, data display, and verification, which can be described as follows:

The first is data collection. In the interactive analysis process, the first activity carried out is data collection. The data in this study were obtained from various sources. In the data collection process, the researcher collected data about the implementation of lesson study in mathematics learning. In data reduction, the results of analyses from data collection were selected, summarized, and simplified in accordance with the research problem to provide a clear picture and enable the researcher to group the data according to the topic of the problem. In data display, a set of information that provides the possibility of drawing

## IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS IN MATCH LEARNING FOR TEACHERS' COMPETENCE

conclusions and acting was presented in the form of brief descriptions, charts, and relationships between categories and the like. In the verification, the findings that can be in the form of a description of an object that was previously unclear becomes clear after being examined. It can be in the form of a causal or interactive relationship, hypothesis, or theory. This conclusion needs to be verified so that the data is relevant and truly accountable (Hidayati et al., 2017).

### RESULTS AND DISCUSSION

Based on the study conducted by a team of lecturers and teachers in the fourth grade of the Sukoharjo district elementary school for the implementation of lesson study on match learning for teacher competence through Zoom Meetings application, there are 3 stages of activities including the planning stage (Plan), the implementation stage (Do), and the reflection stage (see).

#### *Plan Stage*

The activities in this stage followed the lesson study stages below:

- a. Lesson study groups compile a table of lesson study activity plan, day and date, learning materials, activities (pre-activities, main activities, and post-activities), preparation of learning instruments in the form of one-sheet lesson plan, learning media through Zoom Meetings, model teacher, observing teacher and lecturer, observation sheet, and assessment/evaluation sheet. The table of lesson study activity plans outlines the division of tasks for each group member. Then, based on the selected lesson study focus, learning instruments were constructed for Plan, Do, and See stages. This one-sheet lesson plan was also presented in match learning sequence with scientific approach that was packaged virtually using Zoom Meetings.
- b. The observation sheet for the implementation of lesson study was used to make observations. The observations were emphasized on student learning activities because of the focus of the lesson study provided. Thus, the observation sheet contains important points from the lesson study focus to be observed. Lesson study activities were focused on observing the independence of students in virtual match learning with Zoom Meetings because students with high independence will show high ability in making decisions, carry out their decisions and duties, have self-confidence, be able to solve problems, have initiative, have high self-control, try to enhance their behavior, and be explorative. Meanwhile, students with low independence will have a lack of ability in making decisions, carrying out routine tasks, and have low self-confidence. They also have a lack of problem-solving skills and initiatives, are less able to try to enhance their behavior, have a lack of satisfaction from what they have done, and are less explorative (Afiatin, 1993).

Plan was implemented in a team by teachers and lecturers of the Sukoharjo district elementary school which was divided into the assignments of a model teacher, an observing teacher and lecturer, and the documentation team. The plan was carried out in the meeting room of the Sukoharjo district elementary school on Wednesday, March 3, 2021 offline. The following are the results of coordination with the lesson study lecturer team for Do, including:

HERRY AGUS SUSANTO, MEIDAWATI SUSWANDARI, DEWI  
KUSUMANINGSIH, SRI MULYATI

- 1) The theme to be presented is theme 8 sub-theme 2 with the content of The area where I live lessons.
- 2) Learning instruments such as student attendance list and instrument sheets that include question sheet and observation sheet were prepared in the lesson plan.
- 3) The learning model to be delivered is the thematic learning model in the 2013 curriculum in the form of scientific approach which includes observing, asking, trying, associating, and communicating.
- 4) The learning media used is Zoom Meetings.
- 5) The students were divided into offline and online. Two students attended the class, and 17 students were in their homes. Students who were offline in class also continued to use Zoom Meetings.
- 6) Seat formation was selected for students in the form of sitting neatly in front of their parents' laptop or using Android phone at home.
- 7) The lesson study was decided to be implemented to the fourth grade on Wednesday, March 10, 2021.

*Do Stage*

Do was carried out virtually on Zoom Meetings on Wednesday, March 10, 2021 at 09:00-09:45 AM. Students logged in to the Zoom Meetings helped by their parents at home. Meanwhile, 2 students in the class were assisted by the documentation team to prepare a laptop to enter the app. Learning was opened by the teacher with greetings and prayers. Then, the teacher turned off the students so that her voice could be heard clearly. The students followed their teacher's directions to turn on their camera and microphone. The teacher asked how the students were doing before starting lessons. The teacher began the lesson by asking questions about the differences in Indonesia.

Some students responded to the teacher's questions. The learning activities seemed alive with several students expressing their opinions on the questions raised by the teacher even though it was through Zoom Meetings. Then, the teacher continued the material by displaying a PowerPoint slides and asked the students to pay attention carefully. The teacher guided the students in delivering material about the diversity of ethnic groups in Indonesia by inserting questions around the students. This aims to facilitate students' understanding of ethnic groups in Indonesia. Students also followed the teacher's directions when asked to carry out activities to write about Indonesian language. Then, students they carried out activities like pushing tables and throwing rolls of paper in the science lesson.

The next activity was the teacher asked the students to make conclusions together about the material on theme 8 sub-theme 2. The students and their teacher concluded the material discussed. The teacher followed up in the form of assignments in student books in their respective homes. The teacher closed the lesson with greetings and told the students to always maintain their health.

## IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS IN MATCH LEARNING FOR TEACHERS' COMPETENCE

### *See Stage*

After the Do activities, reflection activities were carried out on Wednesday, March 10, 2021, from 10:05 AM to 11.40 AM. The results discussed in this stage include:

- 1) The students were quite active in discussing individual work processes.
- 2) Some students were not confident in communicating the results of their opinions.
- 3) Some had difficulties following the teacher's instructions when pushing the table.

Some reflections from the observations in detail are as follows.

First, Observer 1 (Mr. Santoso) conveyed the result of his observations of a student named Aura Nesya. She did offline match learning /attended the class. She could follow match learning with scientific approach but not completely. This was constrained by online learning using Android mobile phone where the camera position was portrait, so the screen display was not optimal. On the other hand, she always follows the teacher's directions and instructions when pulling and pushing the table, throwing papers, and writing summaries in books. Despite following the teacher's directions, Aura also had difficulty pushing and pulling the table because she was in doubt, confused, and felt that the class table she pulled and pushed was difficult to move.

Second, Observer 2 (Ms. Yandra) expressed her opinion about the student named Dewa Candra. During the match learning via Zoom Meetings, the sound created by Dewa was heard softly. He also looked unsure of himself and did not concentrate well. In the main activities, he lacked focus, was just silent, and did not follow the teacher's directions to push and pull the table, but for instructions to throw rolls of paper, he did it.

Third, Observer 3 (Ms. Ambar) delivered the results of his observations of a student named Dania. Dania is a quiet student, shy, but serious. During learning, she always waits for what the teacher will say. She is not bothered by the activities around her. However, at main activities, Dania missed doing experiments such as pushing the table and writing summaries. She was still constrained by sound settings at Zoom Meetings. When expressing her opinion, her voice was still muted. Dania's ignorance made her answer not heard by the teacher.

Fourth, Observer 4 (Ms. Mulyati) observed a student named Rendi. This student is calm and quiet. At 09:30 AM, the students were getting bored. Rendi also expressed his opinion in a low voice because he seemed to lack confidence in his answer. He did not pay enough attention to some learning instructions from the teacher, and he looked bored.

The four observers' observations above are conditions that arise in match learning with scientific approach by the teacher via Zoom Meetings. Some students are focused, confident, and follow the teacher's instructions while others lack focus, are bored, have not fully followed the teacher's instructions, and are constrained by not being able to operate Zoom Meetings, especially on microphones. There are interactions between the teacher and the students during the implementation of lesson study at the Do stage through this app. This is what

innovates learning for students and teachers who have been using WhatsApp groups in providing materials and assignments.

Match learning using Zoom Meetings has also been recognized by (Ismawati & Prasetyo, 2020) whose research aims to determine the effectiveness of learning using Zoom Meetings video in early childhood during the Covid-19 pandemic by using Zoom Meetings cloud id application. The method used was descriptive method with quantitative approach. The sample in this study amounted to 64 people, namely early childhood students aged 4-5 years and learning companions. Data collection techniques in this study included pretest, posttest, and Likert-scale questionnaire. The data analysis technique was Paired T-test. The results showed that learning by video conference was effective, interactive, and could support distance learning, making it easier for students to absorb the learning material delivered by their teacher because it was more real time.

In addition, the match learning delivered by the teacher is also part of the implementation of lesson study activities. Farida (2016); Maghfiroh & Umar (2011) states that the application of lesson study has some benefits, including (1) reducing teacher alienation in planning, implementing learning, and improving, (2) helping teachers to observe and criticize their learning, (3) deepening teachers' understanding of subject matter, curriculum coverage, and sequence, (4) helping teachers focus assistance on the way students think and learn, (5) increasing the accountability of teacher performance, (6) creating an exchange of understanding about how students think and learn, (7) increasing collaboration with fellow teachers in learning, (8) improving teacher quality and learning quality resulting in an increase in the quality of graduates, (9) providing many opportunities to teachers to make meaningful educational ideas in their learning practices so that they can change perspectives on learning and learn learning practices from the perspective of students, (10) improving learning practices in the classroom, and (11) increasing the skills to write scientific papers or textbooks.

The implementation of lesson study increases teachers' competence, which is also in agreement with a study conducted on teachers in Bantul Regency regarding increasing teacher competence through lesson study Tedjwati (2011). It was found that the implementation of the lesson study could increase the pedagogic, professional, social, and personal competencies of the teachers; they became more innovative; the learning methods were more varied and more relevant to the student ability; teachers did not hesitate to share their experiences and ideas, motivate each other, and obtain the feedback on the learning being carried out; they were satisfied with their work and worked sincerely; lesson study could also increase the quality and quantity of teachers in implementing CAR (Classroom Action Research). In addition, through teacher working groups (MGMP), there is uniformity in the learning of the same subjects.

After implementing the lesson study program, the pedagogical, professional, social, and personal competencies of the teachers improve. They are more innovative with more varied and more relevant learning methods to students' abilities. They do not hesitate to share their experiences and ideas, motivate each other, and obtain feedback on the learning carried out. They feel satisfied and sincere in working. This program also increases the quality and quantity of teachers in implementing CAR.

## CONCLUSION

## IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS IN MATCH LEARNING FOR TEACHERS' COMPETENCE

It is concluded that the lesson study was implemented via Zoom Meetings in match learning for teachers' competence at the Sukoharjo district elementary school through 3 stages (Plan, Do, and See). In the Plan stage, lesson study groups compile a table of lesson study activity plan, day and date, learning materials, activities (pre-activities, main activities, and post-activities), preparation of learning instruments in the form of one-sheet lesson plan, learning media through Zoom Meetings, model teacher, observing teacher and lecturer, observation sheet, and assessment/evaluation sheet. In the Do stage, the teacher conducted match learning. This one-sheet lesson plan was also presented in a match learning sequence with scientific approach that was packaged virtually using Zoom Meetings. In the See stage, some of the findings from the observers which included several students who were focused, confident, and following the teacher's instructions were displayed. In addition, the impact felt by the teacher after implementing the lesson study was the increase in pedagogical, professional, social, and teacher personality competence.

### ACKNOWLEDGMENTS

The researcher would like to thank RISPRO of the Ministry of Finance of the Republic of Indonesia for funding this research.

### REFERENCES

- Ahmadi, F & Hamang, N. (2017). Penerapan lesson study dalam meningkatkan kompetensi guru dan implikasinya terhadap kualitas pembelajaran fiqih. *Jurnal Istiqra'*, IV(11), 172-181. <https://books.google.co.jp/books?id=rJJDMQAACAAJ>
- Farida, A. (2016). Implementasi Lesson study untuk meningkatkan kinerja dosen matematika STMIK Duta Bangsa Surakarta. *Derivat*, 3(2), 17-24.
- Fitriyani, F., Febriyeni, M. D., & Kamsi, N. (2020). Penggunaan Aplikasi Zoom Cloud Meeting pada Proses Pembelajaran Online Sebagai Solusi di Masa Pandemi Covid 19. *Edification Journal*, 3(1), 23-34. <https://doi.org/10.37092/ej.v3i1.221>
- Hidayat, S., Agusta, E., Siroj, R. A., & Hastiana, Y. (2019). Lesson Study & Project Based Learning sebagai Upaya Membentuk Forum Diskusi dan Perbaikan Kualitas Pembelajaran Guru IPA. *Jurnal Pengabdian Kepada Masyarakat (Indonesian Journal of Community Engagement)*, 4(2), 171. <https://doi.org/10.22146/jpkm.31423>
- Hidayati, N., Khairulyadi, & MHSc. (2017). Upaya Institusi Sosial dalam Menanggulangi Pengemis Anak di Kota Banda Aceh (Studi terhadap Institusi Formal Dinas Sosial dan Tenaga Kerja di Kota Banda Aceh). *Jurnal Ilmiah Mahasiswa FISIP Unsyiah*, 2(November), 181-191. <http://www.jim.unsyiah.ac.id/FISIP/article/view/2700>
- Hikmawati, Jufri, iA. W., & Sutrio. (2018). Simulasi Kegiatan Lesson Study Sebagai Upaya Untuk Mengembangkan Profesionalisme Pendidik. *Jurnal Pendidikan Dan Pengabdian Masyarakat*, 1(2018), 215-222.



**HERRY AGUS SUSANTO, MEIDAWATI SUSWANDARI, DEWI  
KUSUMANINGSIH, SRI MULYATI**

- Huda, M. (2018). Kompetensi Kepribadian Guru Dan Motivasi Belajar Siswa (Studi Korelasi Pada Mata Pelajaran Pai). *Jurnal Penelitian*, 11(2), 237-266. <https://doi.org/10.21043/jupe.v11i2.3170>
- Ismawati, D., & Prasetyo, I. (2020). Efektivitas Pembelajaran Menggunakan Video Zoom Cloud Meeting pada Anak Usia Dini Era Pandemi Covid-19. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 5(1), 665. <https://doi.org/10.31004/obsesi.v5i1.671>
- Karmizan, K. (2018). Meningkatkan Kompetensi Pedagogik Guru Dalam Pembelajaran Dengan Lesson Study Di Kelas Sd Negeri 001 Koto Peraku Kecamatan Cerenti. *JURNAL PAJAR (Pendidikan Dan Pengajaran)*, 2(4), 608. <https://doi.org/10.33578/pjr.v2i4.5711>
- Lestari, R. (2018). Pengaruh Model Lesson Study Terhadap Kemampuan Dasar Mengajar Mahasiswa Biologi Universitas Pasir Pengaraian. *Bio-Lectura*, 5(1), 103-110. <https://doi.org/10.31849/bl.v5i1.1015>
- Maghfiroh, T., & Umar, H. M. . (2011). Pelaksanaan Lesson Study Berbasis Sekolah Dalam Meningkatkan Profesional Guru Pada Mata Pelajaran IPS (Ilmu Pengetahuan Sosial) Di SMP Negeri 1 Jember. *Jurnal UNEJ Jurnal Pendidikan Ekonomi*, 9, 35-47. <https://jurnal.unej.ac.id/index.php/JPE/article/view/3413/2679>
- Maria,S, H. T., Octavianty, E., & . H. (2013). Implementasi Lesson Study untuk Meningkatkan Kualitas Perkuliahan Fisika Inti. *Jurnal Pendidikan Matematika Dan IPA*, 2(1), 40-49. <https://doi.org/10.26418/jpmipa.v2i1.2181>
- Monica, J., & Fitriawati, D. (2020). Efektivitas Penggunaan Aplikasi Zoom Sebagai Media Pembelajaran Online Pada Mahasiswa Saat Pandemi Covid-19. *Jurnal Communio : Jurnal Jurusan Ilmu Komunikasi*, 9(2), 1630-1640. <https://doi.org/10.35508/jikom.v9i2.2416>
- Muthmainnah, & Jayengsari, R. (2019). Kompetensi Guru : Urgensi Dan Kompetensi Yang Perlu. *Sekolah Pascasarjana Universitas Pendidikan Indonesia*, 229.
- Pratiwi, A. D., & Wahyuni, E. S. (2019). Potensi Aplikasi Zoom Cloud Meetings Dalam. *Prosiding Seminar Nasional FKIP 2019, October 2019*, 1747-1754.
- Ramdhani, S & Arizona, K. (2019). Kelas Inspirasi Berbasis Media Real melalui pendekatan Lesson Study. *Jurnal Pengabdian Masyarakat*, 15(1), 23-34. <https://journal.uinmataram.ac.id/index.php/transformasi/article/view/964/635>
- Ratnawati, D. (2019). Esensi Lesson Study di Era 4.0. *Jurnal Dinamika Vokasional Teknik Mesin*, 4(1), 24-30. <https://doi.org/10.21831/dinamika.v4i1.24279>
- Sahidu, H; Gunawan; Kosim; & Rahayu, S. (2018). Penyuluhan tentang Lesson Study untuk meningkatkan kompetensi pedagogik guru-guru di MAN 2 Mataram. *Jurnal Pendidikan Dan Pengabdian Masyarakat*, 1(1).
- Suhery, Putra, T., & Jasmalinda. (2020). Sosialisasi penggunaan aplikasi zoom meeting dan google classroom pada guru di SD N 17 Mata Air Padang

IMPLEMENTATION OF LESSON STUDY THROUGH ZOOM MEETINGS  
IN MATCH LEARNING FOR TEACHERS' COMPETENCE

Selatan. *Jurnal Inovasi Penelitian*, 1(3), 1-4.

- Supriatna, Y. (2019). Implementasi Lesson Study dalam meningkatkan profesionalisme guru pendidikan agama islam. *Jurnal Turatsuna*, 21(3), 1-13.
- Susilowati, Indah; Sutanto & Daharti, R. (2013). Strategi Peningkatan Kompetensi Guru Dengan Pendekatan Analysis Hierarchy Process. *JEJAK: Jurnal Ekonomi Dan Kebijakan*, 6(1), 80-92. <https://doi.org/10.15294/jejak.v6i1.3750>
- Syafruddin, S. (2015). Meningkatkan Kompetensi Pedagogi Guru Melalui Lesson Study Menuju Mutu Pembelajaran Guru. *Jurnal Pendidikan Fisika*, 3(2). <https://doi.org/10.24127/jpf.v3i2.272>
- Tabi'in, A. (2017). Kompetensi Guru dalam Meningkatkan Motivasi Belajar pada MTsN Pekan Heran Indragri Hulu. *Jurnal Pendidikan Agama Islam Al-Thariqah*, 1(2), 156-171. [https://doi.org/10.25299/althariqah.2016.vol1\(2\).629](https://doi.org/10.25299/althariqah.2016.vol1(2).629)
- Tedjawati, J. (2011). Peningkatan Kompetensi Guru Melalui Lesson Study: Kasus Di Kabupaten Bantul. *Jurnal Pendidikan Dan Kebudayaan*, 17(4), 480. <https://doi.org/10.24832/jpnk.v17i4.43>
- Thamrin, T., Maipita, I., & Hutasuhut, S. (2018). Peningkatan Kompetensi Guru Berbasis Lesson Study Di Sub Rayon Smkn 7 Medan. *Jurnal Pengabdian Kepada Masyarakat*, 23(4), 479. <https://doi.org/10.24114/jpkm.v23i4.8598>
- Wahyono, P., Jaya Miharja, F., Hindun, I., & Muizzudin, F. (2016). Implementasi Pembelajaran Lesson Study Pada Mata Kuliah Genetika Lanjut. *JINoP (Jurnal Inovasi Pembelajaran)*, 2(2), 400. <https://doi.org/10.22219/jinop.v2i2.3493>

**HERRY AGUS SUSANTO:** Mathematics Education, Universitas Veteran Bangun Nusantara, Sukoharjo, Indonesia.  
*Corresponding author:* [herrysanto\\_62@yahoo.co.id](mailto:herrysanto_62@yahoo.co.id)

**MEIDAWATI SUSWANDARI:** Primary Teacher Education, Universitas Veteran Bangun Nusantara, Sukoharjo, Indonesia.  
**E-MAIL:** [moetis\\_meida@yahoo.co.id](mailto:moetis_meida@yahoo.co.id)

**DEWI KUSUMANINGSIH:** Indonesian Language Education, Universitas Veteran Bangun Nusantara, Sukoharjo, Indonesia.  
**E-MAIL:** [dewikus1728@gmail.com](mailto:dewikus1728@gmail.com)

**SRI MULYATI:** Primary Teacher Education, Universitas Veteran Bangun Nusantara, Sukoharjo, Indonesia.  
**E-MAIL:** [mulyatinuk.sri61@gmail.com](mailto:mulyatinuk.sri61@gmail.com)