Lesson Study and the Improvement of Teachers' Creativity in Teaching for Secondary Students

Dwi Juliastuti[1], Semi Sukarni[2], Sudar[3]
{missdwi007@gmail.com[1], semisukarni@umpwr.ac.id[2], sudarbintang@umpwr.ac.id[3]}

Universitas Muhammadiyah Purworejo, Indonesia[123]

Abstract. This study aims to explore the efficacy of lesson study as a means to enhance the creativity of teachers in secondary education. Lesson study, a professional development practice originating from Japan, involves collaborative planning, observing, and analyzing learning and teaching in 'research lessons.' This participatory and reflective process fosters a supportive environment where teachers can innovate and refine their pedagogical techniques. The research four teachers from different subjects of Secondary School, participated in the study. The investigation employed Case Study Approach design to investigate how engaging in lesson study impacts teachers' ability to devise creative instructional strategies, thereby enhancing students' engagement and learning outcomes. The findings suggest that lesson study not only promotes professional growth among educators but also leads to a more dynamic and stimulating classroom environment. By integrating collaborative reflection and continuous improvement, lesson study emerges as a vital tool for fostering creativity and improving the overall quality of secondary education.

Keywords: Lesson study, Creative, Teachers' creativity, Teaching

1. INTRODUCTION

Lesson study is a professional development process originating from Japan, where teachers collaborate to design, teach, observe, and refine a single lesson. The process typically involves several stages: planning a lesson together, teaching the lesson while others observe, discussing and analyzing the lesson's effectiveness, and revising the lesson based on feedback. The goal is to create a shared understanding of effective teaching practices, improve instructional quality, and ultimately enhance student learning outcomes [1].

A key aspect of the Lesson Study method is reflection, which enhances professional skills and fosters a commitment to making the teaching process more significant, structured, and achievable through collaboration with colleagues. Global experiences indicate that implementing Lesson Study techniques is highly effective in enhancing teaching practices and elevating students' knowledge in essential subjects at the primary and secondary school levels. Additionally, it aids in the development of foundational pedagogical strategies, including assessment for learning [2].

In the evolving landscape of education, fostering creativity in teaching methodologies has become increasingly crucial. One powerful framework that has shown promise in enhancing teachers' creativity, particularly in teaching to secondary students, is the Lesson Study approach. Lesson Study encouraged teachers to reflect on their teaching practices. The students' performances during the research lessons and their feedback revealed the good influence of these activities on their learning experiences. By matching their professional development to the unique requirements of their students and the environment in which they teach, Lesson Study gives teachers the opportunity to improve their abilities. Their knowledge and comprehension of efficient teaching techniques are enhanced by this cooperative approach[3].

This method involves teachers working together to plan, observe, and analyze learning and teaching in 'research lessons'. The process typically consists of three main phases: planning, implementation, and reflection. Teachers collaboratively develop a lesson plan, observe its implementation in the classroom, and then engage in reflective discussions to analyze the effectiveness of the lesson and identify areas for improvement[4]. The teachers have to give the instruction directly to make the students engage the material. The meaning of directive speech functions is to make the listeners or the readers of the texts to do some activities[5].

In lesson study, teachers develop a deeper understanding of subject matter and effective teaching strategies. Participation in lesson study promotes the adoption of innovative and evidence-based teaching practices. Teachers become more reflective and analytical about their teaching methods. Teachers' increased focus on student thinking and learning processes helps in creating more supportive and responsive learning environments[6].

Lesson study fosters a collaborative research culture among teachers, promoting shared inquiry and collective problem-solving. The research findings from lesson study are directly applicable to classroom practice, making them highly relevant and actionable for teachers. The reflective nature of lesson study encourages educators to critically examine their teaching methods and make evidence-based improvements [7].

Lesson study serves as a powerful tool for continuous professional development. Teachers become more adept at designing lessons that cater to diverse student needs and learning styles. Teachers engaged in lesson study reported improved teaching strategies and a deeper understanding of pedagogy. The process of lesson study leads to the development of more effective and innovative teaching methods[2]. Moreover teachers develop more effective and innovative strategies for teaching. The lesson study process helps teachers design lessons that are more engaging and better suited to students' needs[8]. The iterative process of lesson study encourages teachers to experiment with new ideas and innovative teaching strategies. This encourages teachers to be more creative.

Teachers' creativity in teaching has increasingly become a focal area of educational research, emphasizing the importance of innovative pedagogical strategies that foster student engagement and learning. Creativity is a significant topic of conversation worldwide, playing a crucial role in both educational practices and curriculum development [9]. Teachers can cultivate a learning environment that fosters creativity and innovation among students [10]. Effective teachers often possess the quality of being able to approach teaching with creativity. Teachers come to the classroom with diverse experiences, and their views on 'creative teaching' or 'good teaching' are often shaped by a range of factors such as personal teaching background, motivation, and organizational limitations [11]. Creativity in teaching involves the ability to generate new ideas, adapt to changing educational environments, and implement unconventional methods to enhance learning outcomes.

Creativity is generally defined as the ability to produce original and valuable ideas. It involves thinking in novel ways and making connections between seemingly disparate concepts. In the context of teaching and learning, creativity refers to the capacity to develop innovative instructional methods, design engaging learning experiences, and solve educational problems in unique ways [9].

It is the capacity to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others. In the context of education, creativity is the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, etc [12]. Creativity has become increasingly important, as one of the most important and noted skills for success in the 21st century [13], [14], [15]. Creativity has the advantage of prompting students to think in new ways, leading them to discover innovative solutions to problems [16], [17], [18]. Within the creative process, fluency, flexibility, originality, and elaboration are key skills that are essential for fostering creativity [19]. Teachers play a crucial role in nurturing students' creativity. Besides teachers influence on the development of primary school students' creativity is significant as they serve as role models and mentors, spending a substantial amount of time with students"[20]. However, many teachers struggle to effectively foster creativity in their students and how they handle and react to the innovative ideas of the students [21].

A teacher can be creative in several ways, including integrating technology to enhance learning, using diverse instructional strategies, and fostering an open-ended, inquiry-based learning environment. Creative teachers often encourage critical thinking, collaboration, and problem-solving among students. They may use multimedia resources, project-based learning, and interactive activities to make lessons more engaging and relevant to students' lives [22]-[24]. As we know that the students live with other people and of course they have to be able to cooperate with their environment. The social changing will be existed if people/ group of people are considered in social participation, working together to solve such a problem [22]-[24].

This study investigates the influence of Lesson Study on teachers' creativity in teaching and their collaboration with colleagues, particularly at The State Junior High School 5, Kebumen. While existing research focuses on the impact of Lesson Study on teachers' 4C skills and the quality of learning, there is limited research on its effect on teachers' creativity. Therefore, this study aims to address this gap by exploring the impact of Lesson Study on teachers' creativity and poses the following research questions:

1. Does lesson study impact teachers' creativity?
2. How does lesson study impact teachers' creativity?

2. METHOD
Research Participants
The study involved four teachers from different subjects at The State Junior High School 5 in Kebumen City, Indonesia. The researcher was also one of the participants, who was a model teacher. The group comprised two male and two female teachers. Four teachers were chosen using purposive sampling based on four criteria.: (a) sex, (b) age, (c) teaching experience, and (d) subject.

Table 1. Participants

No.	Name of Partipants	Age	Sex	Teaching Experience	Subject
1	DJ	46	Female	14 years	English
2	AW	42	Female	10 years	Science
3	JS	53	Male	17 years	BK (Conselling)
4	AB	35	Male	2 years	Communication and Information (TIK)

The participants (model teacher) were observed by three teachers acting as observers. One of the observers taught the same subject as the model teacher, while the other observers taught different subjects. The selection of these observers was based on their availability and not having teaching commitments during the observation period to ensure that the lesson study did not disrupt teaching and learning in other classes.

Instrument and Procedure
The study employs an intrinsic case study approach, focusing on four teachers from various subjects from The State Junior High School 5 Kebumen, Indonesia. Case study research is a qualitative research method that involves an in-depth, contextual analysis of a specific instance or event, known as a 'case'. This approach is particularly useful for exploring complex issues within their real-life settings. The goal is to gain a rich, comprehensive understanding of the subject matter, which could range from individual behaviors to organizational processes. Essentially, there are a number of ways to gather data for qualitative research, including surveys, focus groups, interviews, documentation, observation, participatory arrangements, etc quality audiovisual content [22]-[25]. By using case study research, researchers can gain a deep, contextualized understanding of their subject, which can inform practice, policy, and further research [31].

The researcher conducted two cycles. Each cycle has four-phased of the lesson study frame-work namely; 1) Plan, The participants collaboratively planned a lesson focusing on creativity skills; 2) Do, One participant taught the planned lesson while others observed; 3) See, The group reconvened to discuss observations, provide feedback, and reflect on the lesson's effectiveness; 4) Act, Based on the feedback, the lesson was revised and taught again by another participant [32].

Data Collection
The success of scientific research in the field of education largely depends on the data collection techniques and research instruments employed. The commonly used data collection techniques in qualitative research include; 1) Interviews, Involving direct interaction between researchers and respondents to obtain data in the form of views, experiences, and perceptions; 2) Observations, Involving direct observation of research subjects in their natural context; 3) Document Analysis, Collecting data from documents, archives, or other written materials relevant to the study [33].

In this research, data were collected through interviews with teachers, Lesson Study Observation Forms These forms were used to systematically document observations during the lesson study sessions, and analysis of lesson plans and teaching materials. The study also included reflective dialogues with educators to understand their perspectives and experiences.In this research, data collection methods also include meeting Recordings: Discussions during lesson planning and review meetings.

As the participants conducted their teaching in the classroom, the observers carefully observed their performance and completed the observation forms. Below are the observation forms.

Table 2. Observation Form

OBSERVATION SHEET FOR LEARNING ACTIVITIES IN LESSON STUDY

School	
Class	
Subject	
Model Teacher	
Topic	
Day/Date	
Time Allocation	

A. Have all students truly learned about today's learning topic? How did they learn? (supported by concrete facts and reasons)

B. Which students were not actively participating in today's learning activities? (must be based on observed concrete facts, including student names)

C. Why were these students unable to learn effectively? What are the causes, and what alternative solutions can be proposed? (include thorough reasoning, in-depth analysis, and relevant references if possible)

D. How did the teacher make efforts to encourage inactive students to learn? What was the student response?

E. Were the learning objectives achieved? Was group work effective?

F. What aspects of the model teacher's approach can be emulated?

G. What valuable lessons can be drawn from today's learning observation?

Observer:

(Signature …)

(Name)

Table 3 Lesson Study Observation Form

LEARNING ACTIVITY	OBSERVATION RESULT	
	YES/NO	COMMENTS
1. Are there students who are not paying attention during the learning process?		
2. Do students ask questions to the teacher or their peers?		
3. Do students answer questions from the teacher or other students?		
4. Do students collaborate with each other to solve problems?		
5. Do students appear stressed during the lesson?		
6. Do students seem happy during the lesson?		
7. Is there any material that students find difficult to understand?		
8. Has the teacher fulfilled their role according to the lesson plan?		
9. Is the teaching method applied by the teacher appropriate?		
10. Overall, were the learning objectives achieved according to the plan?		

3. FINDINGS

The findings reveal that teachers in The State Junior High School 5, Kebumen improved their creativity in teaching and engaging students' participation in the classroom. It could be seen from the observation forms filled in by the observers and encouraged by developing innovative teaching strategies.

In addition, the feedback provided by observers during the reflective sessions suggested that the participants demonstrated heightened creativity in their teaching approaches. They employed innovative methods that were previously unfamiliar to the observers. Remarks from the observers are outlined below:

Researcher: How did window shopping be implemented in teaching English?

Bagianti [DJ Observer]: I found the Window Shopping method, used for teaching English, particularly intriguing. It effectively encouraged student engagement and activity, catering well to kinesthetic learners.

Researcher: What do you think about the implementation of Project Based Learning in science teaching?

Kurnia Nur Rokhman [AW Observer]: implementation of Project Based Learning in science teaching was truly impressive and introduced a sense of novelty to my teaching approach.

Researcher: What do you think about the integration of technology in the teaching and learning process?

Dwi Asih [AB Observer]: The integration of technology in the classroom greatly enhanced student satisfaction. His creative use of applied technology left me with valuable insights on effective teaching methods.

Researcher: What did you get from Mr. JS teaching in the class?

Aniroh [JS Observer]: I gained insights into alternative methods for forming student groups. His approach was genuinely intriguing and introduced a novel perspective for me.

Moreover, upon reviewing the recorded teaching video, fellow teachers provided positive feedback and expressed interest in the instructional methods employed by the participants. They indicated that they were inspired by the exemplary teaching demonstrated.

Let's examine the strengths of each of the participants.

Table 4. Participants' Methods/Teaching Strategy and Their Strength

No.	Participants	Subject	Method/Teaching Strategy	Strength
1	DJ	English	Window shopping	- Utilizing Diverse ICT And Instructional Media - Students Centered Learning
2	AW	Science	PBL	- Utilizing Diverse ICT And Instructional Media - Applying Differentiated Instruction
3	JS	Counselling	Modelling / Role Play	- Students Centered Learning - Interactive And Engaging Students
4	AB	Information and Technology	Discussion	- Utilizing Diverse ICT And Instructional Media - Students Centered Learning

From the table above, it can be seen that most of the participants used technology in learning and teaching process. The implementation of the right technology for teaching and learning process very important. In addition using technology can make teachers more creative. A teacher can be creative in teaching by incorporating various innovative strategies and tools into their instruction. This might include using ICT tools such as interactive whiteboards, educational software, and online resources to create dynamic and engaging lessons [34].

Contemporary technologies frequently introduce new avenues for individuals to express creativity. In an educational setting, education and technology are two fields that are always evolving together. In order to promote the advancement of human civilization, they back the integrated development of other sectors. However, to stay up with the technological innovations of the younger generation, teaching methods must be reviewed [35]. Educators must comprehend the various ways in which technology can be utilized to creatively disseminate content and how these approaches align with different pedagogical methods.

The integration of technology into lesson study can significantly enhance the creative potential of teachers. Teachers who do not have proper access to technology also cannot successfully integrate

technology and creativity into teaching [36]. Furthermore the use of digital tools can be leveraged to foster creative teaching practices [37]. To guarantee that all students and teachers can benefit, a methodical approach to technological integration must be used. In order to maintain inclusive and sustainable education in the digital age, this step is crucial [38]. Teachers might experiment with innovative pedagogical approaches, such employing interactive platforms or multimedia materials, to better engage students by integrating technology into lesson studies. It is said that lesson study can be strengthened, expanded, modified, and sustained through the use of technology [39]. It can lead to the development of innovative teaching materials and methods, thereby enriching the learning experience for secondary students.

According to the findings, this research addressed the research questions. Lesson study can significantly impact teachers' creativity. Lesson study is a form of professional development that involves teachers working collaboratively to plan, observe, and analyze learning and teaching in 'research lessons.' This process encourages teachers to reflect deeply on their teaching practices, share insights with colleagues, and experiment with new teaching strategies. Such a collaborative and reflective environment fosters creativity by encouraging teachers to think outside the box, take risks, and innovate in their approaches to teaching. Studies have shown that through lesson study, teachers become more open to trying new ideas and integrating creative methods into their classrooms.

Lesson study has a significant impact on teachers' creativity through various channels. Firstly, it promotes an openness to external influences, allowing classrooms to welcome observations from other educators, and fostering a culture of shared learning experiences. Teachers are encouraged to venture beyond their individual practices and engage with their colleagues to enhance the quality of the learning process. This collaboration extends beyond just the subject matter, encompassing diverse teaching methods, resources, and assessment techniques. Lesson study emphasizes the study of the learning process to identify and implement best practices based on the collective experiences of educators.

Secondly, lesson study facilitates mutual learning and collaboration among teachers, enabling them to enhance their pedagogical practices by sharing insights and innovative approaches. In this setting, educators not only receive constructive feedback and improvement suggestions from their peers but also draw inspiration from their colleagues, fostering a culture of continuous improvement.

Moreover, lesson study cultivates an environment where teachers are empowered to innovate and infuse creativity into their teaching practices. By embracing best practices and leveraging insights from their peers, educators are encouraged to generate new ideas and solutions to enhance the learning experience.

Ultimately, the goal of lesson study is to foster more effective and efficient learning processes, with the aspiration of improving student learning achievements [40].

4. DISCUSSION

The Lesson Study activities at The State Junior High School 5 Kebumen have had a significant impact on the creativity and professional development of four teachers. These activities have led to improvements in their professional knowledge, teaching methods, innovation, and overall growth. Creating a lesson plan involves identifying learning materials, objectives, methods, media, steps, and assessments. The teachers participate in an exchange of ideas and best practices, sharing their knowledge and practical experience. The resulting lesson plans are then used in real learning activities, enabling the teachers to enhance their knowledge, teaching skills, and experience in innovation[41].

The Report of Cycle 1

Before commencing the teaching sessions, all participants convened to engage in discussions about Lesson Study. This included deliberations on the sequential procedures, the required tasks, Lesson Plan formulation, delineation of learning objectives, appropriate pedagogical techniques, among others. In the first cycle, the English teacher (Mrs. DJ) and the Science teacher (Mrs. AW) executed the agreed Lesson Plan (RPP) while being observed by a peer. Notably, one teacher also captured the teaching and learning process using a handycam. Following the classroom instruction, the subsequent step (step 3) involved a reflective session, where all participants, observers, and teachers congregated to analyze the observations. Additionally, the recorded videos were reviewed, and collective feedback was shared, enabling a comprehensive reflection on the efficacy of the lesson.

The Report of Cycle 2

Based on the feedback, the lesson was revised and taught again by another participant in cycle two. During the second cycle, Mr. JS, the Counseling teacher, and Mr. AB, the Communication and Technology teacher, carried out the agreed Lesson Plan while being observed by a fellow teacher. One of the teachers also recorded the teaching and learning process using a Handycam. After the classroom instruction, the next step (step 3) involved a reflective session where all participants, observers, and teachers gathered to analyze the observations. Additionally, the recorded videos were examined, and collective feedback was shared, allowing for a comprehensive review of the effectiveness of the lesson.

Based on the reflective analysis, the following are the outcomes of the Lesson Study conducted at The State Junior High School 5 Kebumen; 1) Strengths; The implemented learning activities align well with the lesson plan (RPP), Differentiated instruction strategies have been effectively employed, A student-centered learning approach is evident, Active and enthusiastic student participation, Utilization of technology (ICT) has been integrated; 2) Areas for Improvement; Time management requires closer attention, Intensify observation of all students during the learning process; 3) Follow-Up Actions; Conduct a workshop on technology integration in teaching practices. Regularly engage in Lesson Study sessions.

After the reflection session, the school principal delivered a comprehensive summary of the benefits and drawbacks of the instructional approaches utilized by the exemplary teacher. The principal also urged all educators to consistently elevate their creativity and professionalism..

Despite the differences between the previous lesson study research and the one conducted at SMP N 5 Kebumen, particularly regarding the observed teachers (where the previous study focused on teachers of the same subject, while SMP N 5 involves different subject teachers), lesson study continues to yield highly beneficial outcomes. These benefits extend not only to teachers but also to students and the school as a whole. Therefore, lesson study remains essential, with ongoing improvements.

5. CONCLUSION

The study concludes that lesson study positively impacts teachers creativity but highlights the need for further research to explore its integration into teacher education programs comprehensively. The Lesson Study approach holds significant promise in enhancing teachers' creativity in teaching to secondary students. By fostering a collaborative and reflective professional culture, this method encourages educators to experiment with innovative teaching strategies that encourage their creativity and adapt to the dynamic needs of their students. As research continues to underscore the benefits of Lesson Study, it is imperative for educational institutions to support and integrate this approach to cultivate a new generation of creative and effective teachers. Lesson Study is a valuable research approach for investigating and improving teaching practices and student learning outcomes. It highlights the benefits of collaborative inquiry, practical relevance, and reflective practice, while also acknowledging the challenges of time commitment, data analysis complexity, and scalability. The case study demonstrates the potential of lesson study as a method for educational research and suggests that it can provide actionable insights for teachers and contribute to the broader field of education research.

6. REFERENCES

[1] S. Rachmajanti, "The Implementation of Lesson Study in Improving the Primary School English Teachers' Professionalism on Developing Materials," *ON EDUCATION*, 2016.

[2] A. Azhar, G. Nurgaliyeva, A. Nurlan, O. Kairat, O. Berikzhan, and A. Mariyash, "Implementation of the lesson study approach to develop teacher professionalism," *CJES*, vol. 17, no. 2, pp. 652–663, Feb. 2022, doi: 10.18844/cjes.v17i2.6862.

[3] M. Alqatawna, "An Exploration of the Lesson Study Approach in Teaching: How Does LS Work and What are the Possible Opportunities and Limitations?," *JoMW*, vol. 2025, no. 2, pp. 558–571, Feb. 2025, doi: 10.53935/jomw.v2024i4.997.

[4] E. Saito and M. Atencio, "Lesson study for learning community (LSLC): conceptualising teachers' practices within a social justice perspective," *Discourse: Studies in the Cultural Politics of Education*, vol. 36, no. 6, pp. 795–807, Nov. 2015, doi: 10.1080/01596306.2014.968095.

[5] S. Sudar, "SPEECH FUNCTION BY LECTURERS AND STUDENTS IN THE COMMUNICATION USING WHATSAPP: SOCIOPRAGMATICS STUDY," *ERJEE*, vol. 12, no. 1, pp. 105–116, Jan. 2024, doi: 10.25134/erjee.v12i1.8812.

[6] C. Lewis, S. Friedkin, K. Emerson, L. Henn, and L. Goldsmith, "How Does Lesson Study Work? Toward a Theory of Lesson Study Process and Impact," in *Theory and Practice of Lesson Study in Mathematics*, R. Huang, A. Takahashi, and J. P. Da Ponte, Eds., in Advances in Mathematics Education. , Cham: Springer International Publishing, 2019, pp. 13–37. doi: 10.1007/978-3-030-04031-4_2.

[7] S. Jansen, M.-C. P. J. Knippels, and W. R. Van Joolingen, "Lesson study as a research approach: a case study," *IJLLS*, vol. 10, no. 3, pp. 286–301, Jul. 2021, doi: 10.1108/IJLLS-12-2020-0098.

[8] R. W. Eriyanti, "LESSON STUDY AS EFFORTS TO IMPROVE TEACHER PROFESSIONALITY IN INDONESIAN LANGUAGE LEARNING BASED ON TEXT," pp. 926–937, 2017.

[9] D. Henriksen, E. Creely, M. Henderson, and P. Mishra, "Creativity and technology in teaching and learning: a literature review of the uneasy space of implementation," *Education Tech Research Dev*, vol. 69, no. 4, pp. 2091–2108, Aug. 2021, doi: 10.1007/s11423-020-09912-z.

[10] R. K. Sawyer, *The creative classroom: innovative teaching for 21st-century learners*. New York, NY: Teachers College Press, 2019.

[11] D. N. Hidayat, F. Fitriah, M. Mahlil, and J. Mason, "Factors impacting English teachers' creativity in teaching English as a foreign language in Indonesia," *SiELE*, vol. 10, no. 1, pp. 155–173, Jan. 2023, doi: 10.24815/siele.v10i1.26145.

[12] E. O. Bereczki and A. Kárpáti, "Technology-enhanced creativity: A multiple case study of digital technology-integration expert teachers' beliefs and practices," *Thinking Skills and Creativity*, vol. 39, p. 100791, Mar. 2021, doi: 10.1016/j.tsc.2021.100791.

[13] P. Mishra and R. Mehta, "What We Educators Get Wrong About 21st-Century Learning: Results of a Survey," *Journal of Digital Learning in Teacher Education*, vol. 33, no. 1, pp. 6–19, Jan. 2017, doi: 10.1080/21532974.2016.1242392.

[14] E. S. Masykuri, "Three Characters Building by Using Comik Wayang," *JPSE*, vol. 2, no. 2, pp. 1–13, Mar. 2017.

[15] E. S. Masykuri and A. Wan, "Kecenderungan Baru dalam Pendidikan Virtual di Metaverse," *Kumpulan Kajian Metaverse*, pp. 111–130, 2023.

[16] S. Vincent-Lancrin *et al.*, *Fostering Students' Creativity and Critical Thinking: What it Means in School*. in Educational Research and Innovation. OECD, 2019. doi: 10.1787/62212c37-en.

[17] José Miguel Orellana Parapi; Lilis Imas Maesaroh; Basuki Basuki; Edi Sunjayanto Masykuri, "Virtual Education: A Brief Overview of Its Role in the Current Educational System," *Scripta : English Department Journal*, no. Vol. 7 No. 1 (2020), pp. 8–11, 2020.

[18] Suryo Daru Santoso and Edi Sunjayanto Masykuri, "Does Sony Vegas Platinum Pro 13 Help Students to Understand Pragmatic Well?," in *Proceedings of the International Seminar on Recent Language, Literature, and Local Cultural Studies (BASA 2018)*, Atlantis Press, Nov. 2018, pp. 322–325. [Online]. Available: https://www.atlantis-press.com/article/25906104

[19] B. Fatmawati, B. M. Jannah, and M. Sasmita, "Students' Creative Thinking Ability Through Creative Problem Solving based Learning," *jppipa, pendidikan ipa, fisika, biologi, kimia*, vol. 8, no. 4, pp. 2384–2388, Oct. 2022, doi: 10.29303/jppipa.v8i4.1846.

[20] A.-R. H. Mastul, "The Crucial Role of Teachers in Fostering Creativity, Critical Thinking, and Motivation in Students," *PBPSP*, vol. 3, no. 02, pp. 54–59, Jun. 2024, doi: 10.56741/pbpsp.v3i02.563.

[21] M. S. Fredagsvik, "The challenge of supporting creativity in problem-solving projects in science: a study of teachers' conversational practices with students," *Research in Science & Technological Education*, vol. 41, no. 1, pp. 289–305, Jan. 2023, doi: 10.1080/02635143.2021.1898359.

[22] E. Sunjayanto Masykuri, K. Ekaterina Alekseevna, and I. Ike Nugraeni, "Designing Asynchronous Digital Media for Teaching Reading Comprehension by Implementing Task-Based Learning," *jet*, vol. 6, no. 1, pp. 109–125, Jan. 2025, doi: 10.51454/jet.v6i1.485.

[23] E. S. Maskuri, Ismawati, Ike Nugraeni, and J. A. Kumar, "Performing Discourse Student's Skill by Using Video," in *Islam, Media, and Education in Digital Era*, 1st ed., Taylor and Francis, 2022, pp. 336–319.

[24] E. Masykuri, "Optimizing Video in Zoom Meetings to Improve EFL Students' Speaking Performance," *Premise: Journal of English Education*, vol. 12, p. 31, Feb. 2023, doi: 10.24127/pj.v12i1.4878.

[25] E. Maskuri, Y. Hakim, A. Ashari, and S. Supriyono, "Integrated Technology And Mutual Participation For Changing Communities Socially, Economically And Religiously," in *Proceedings of the International Conference of Science and Technology for the Internet of Things*, Yogyakarta, Indonesia: EAI, 2019. doi: 10.4108/eai.19-10-2018.2281307.

[26] E. S. Masykuri and A. T. Wan, "Pembelajaran di Masa Covid-19 Work from Home: Pembelajaran Keterampilan Bahasa Inggris dengan Penggunaan Beberapa Aplikasi Berbasis Android dan Windows," *Malang: Whineka Media*, pp. 86–92, 2020.

[27] E. S. Masykuri, E. K. Alekseevna, A. Y. Nikitina, O. A. Petrovna, and R. Y. Purwoko, "How synchronous learning changes the workload of teachers: Experiences learned from expanding countries," *JPSE*, vol. 10, no. 2, pp. 158–171, Dec. 2024, doi: 10.37729/jpse.v10i2.5782.

[28] J. W. Creswell, J. D. Creswell, J. W. Creswell, and J. D. Creswell, *Research design: qualitative, quantitative, and mixed methods approaches*, Fifth edition. Los Angeles London New Delhi Singapore Washington DC Melbourne: SAGE, 2018.

[29] K. Khotimah, E. Sunjayanto, and I. Istiqhfarin, "Combining new technology in elt to create innovation in student's learning," presented at the SEMINAR NASIONAL BAHASA, SASTRA, DAN BUDAYA, 2017.

[30] E. S. Masykuri, "The Non-Observance of Cooperative Principle in the Comic Strip The Adventure of Tintin," presented at the Proceeding of The First Elite Conference, 2014, pp. 118–124.

[31] H. Harrison, M. Birks, R. Franklin, and J. Mills, "Case Study Research: Foundations and Methodological Orientations," *Case Study Research*, vol. 18. No. 1, Art. 19, Jan. 2019.

[32] S. YeşiLçinar and A. Aykan, "Lesson study and 21st-century skills: Pre-service Teachers Reason, Produce and Share," *Participatory Educational Research*, vol. 9, no. 3, pp. 315–329, May 2022, doi: 10.17275/per.22.68.9.3.

[33] Ardiansyah, Risnita, and M. S. Jailani, "Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif," *J.Ihsan*, vol. 1, no. 2, pp. 1–9, Jul. 2023, doi: 10.61104/ihsan.v1i2.57.

[34] K. Nikolopoulou, "Creativity and ICT: Theoretical Approaches and Perspectives in School Education," in *Research on e-Learning and ICT in Education*, T. A. Mikropoulos, Ed., Cham: Springer International Publishing, 2018, pp. 87–100. doi: 10.1007/978-3-319-95059-4_5.

[35] M. J. Susilo, D. Sulisworo, and S. Beungacha, "Technology and Its Impact on Education," *BEI*, vol. 2, no. 02, pp. 47–54, Apr. 2023, doi: 10.56741/bei.v2i02.285.

[36] W. T. Abbasi, A. H. Ibrahim, and F. Ali, "The Relationship between Teachers' Belief Systems, Creativity and the Use of Technology-based English Teaching," *IJLEAL*, vol. 12, no. 2, pp. 6–17, Oct. 2022, doi: 10.15282/ijleal.v12i2.8643.

[37] E. O. Bereczki and A. Kárpáti, "Teachers' beliefs about creativity and its nurture: A systematic review of the recent research literature," *Educational Research Review*, vol. 23, pp. 25–56, Feb. 2018, doi: 10.1016/j.edurev.2017.10.003.

[38] I. Subasman, "Improving The Practice Of Teacher Learning Reflection Through Digital Technology-Based Lesson Study," *AIJP*, vol. 16, no. 2, Jun. 2024, doi: 10.35445/alishlah.v16i2.4905.

[39] R. Huang, N. Helgevold, and J. Lang, "Digital technologies, online learning and lesson study," *IJLLS*, vol. 10, no. 2, pp. 105–117, May 2021, doi: 10.1108/IJLLS-03-2021-0018.

[40] Mira Tania, "Improving Students' Learning Achievements Through Lesson Study: Implementation of the Merdeka Curriculum," *DEJ*, vol. 3, no. 2, pp. 167–187, Dec. 2023, doi: 10.30739/dej.v3i2.2468.

[41] A. F. Mahmud, A. Hi. Usman, F. W. Sari, and S. Dahlan, "Lesson Study Contributions: EFL Teachers' Competences Model in Teaching English at High School 21st-Century Learning Approach," *WJEL*, vol. 13, no. 7, p. 10, Jul. 2023, doi: 10.5430/wjel.v13n7p10.