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What and How Students Feel During Open Class in Lesson Study: A Critical Analysis

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ABSTRAK

Penelitian ini menyelidiki apa yang dirasakan siswa selama kelas terbuka sebagai bagian dari kerangka kerja lesson study dan bagaimana hal ini mempengaruhi pengalaman belajar mereka. Metode kuantitatif deskriptif digunakan dalam penelitian ini. Data primer diperoleh dari kuesioner yang bertujuan untuk memahami faktor-faktor dalam tiga komponen: kenyamanan siswa selama lesson study, persepsi siswa terhadap kinerja guru dalam kegiatan belajar mengajar, dan prestasi siswa selama lesson study. Para peserta adalah 21 siswa kelas sepuluh dari SMA Negeri 8 Malang, Jawa Timur, Indonesia, yang ikut serta dalam pelajaran biologi yang dilakukan melalui pendekatan lesson study. Hasilnya menunjukkan bahwa sebagian besar siswa merasa positif, dengan 70% merasa nyaman di kelas terbuka, 91% memberikan umpan balik positif terhadap kinerja guru, dan 93% merasa bahwa mereka telah bekerja dengan baik. Studi ini menyoroti bagaimana lesson study dapat membantu menciptakan budaya pembelajaran yang reflektif dan kooperatif yang bermanfaat bagi semua peserta, termasuk para guru. Lesson study mendorong terciptanya lingkungan yang positif di dalam kelas, yang dianggap kondusif bagi siswa untuk terlibat dan belajar secara nyata, melalui peningkatan perencanaan pembelajaran, pengelolaan kelas, dan penyampaian pembelajaran. Temuan ini juga menekankan perlunya mencari dan menemukan metode untuk meningkatkan kenyamanan siswa dan mengurangi emosi negatif yang dialami siswa selama kelas terbuka. Penelitian di masa depan direkomendasikan untuk meneliti dampak jangka panjang dari pengalaman kelas terbuka dalam lesson study.

Kata Kunci: lesson study, kelas terbuka, keterlibatan siswa, kinerja guru

ABSTRACT

This research investigates what students feel during open class as part of the lesson study framework and how this affects their learning experience. A descriptive quantitative method was employed in this study. The primary data were obtained from questionnaires that aimed to understand the factors in three components: students' comfort during lesson study, students' perceptions of teachers' performance on teaching and learning, and students' achievement during lesson study. The participants were 21 tenth-grade students from SMA Negeri 8 Malang, East Java, Indonesia, who took part in a biology lesson conducted through the lesson study approach. The results indicate that most students felt positively charged, with 70% feeling comfortable in open

classes, 91% providing positive teacher performance feedback, and 93% feeling they had performed well. This study highlighted how lesson study can help create a reflective and cooperative learning culture that benefits all participants, including the teachers. Lesson study promotes a positive environment in the classroom that students see as conducive for engagement and actual learning through improved lesson planning, classroom management, and instructional delivery. The findings also emphasize the need to seek and find methods to increase student comfort and reduce negative emotions experienced by students during open classes. Future research is recommended to examine the long-term impacts of open-class experiences within the lesson study on students' academic motivation, emotional resilience, and learning outcomes.

***Keywords**: lesson study, open class, student engagement, teacher performance*

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INTRODUCTION

Continuous innovation must be accomplished to improve educational quality in the current century. Among innovative practices, Lesson Study is now well established as a collaborative and reflective professional development model (Jones, 2024). Since the late 1990s, Lesson Study has gained popularity as both a development strategy and an instructional improvement approach. It is underpinned by several key philosophies that have attracted attention from educators and researchers worldwide, including teacher ownership, professionalism, dialogic inquiry centered on student learning, collaborative partnerships, and the cultivation of professional teacher communities (Kim et al., 2021). Compared to other widely adopted learning strategies such as Problem-based Learning (PBL), Project-Based Learning (PjBL), Blended Learning, and Professional Learning Communities (PLCs), Lesson Study offers a distinctive emphasis on collective lesson planning and live classroom observation. While PBL or PjBL actively engages students in solving real-world problems (Kistian & Verawati, 2020; Massa et al., 2019), students' achievement (Sri Lestari et al., 2022), motivation (Akida et al., 2023), and fosters students' critical thinking skills (Low et al., 2024). Blended Learning leverages digital tools to personalize instruction, and PLCs that often focus on data-driven discussion and general teaching strategies.

Lesson study supports ongoing professional development for teachers, allowing them to enhance their instructional methods and respond to students' emotional needs more effectively. Lesson Study provides a professional development environment where teachers can collaborate on their classroom practices and responsibilities related to student engagement (Gomes et al., 2021).

According to (Khokhotva & Elexpuru Albizuri, 2020), lesson study not only fosters teachers to change their educational strategies by making them more reflective and student-centered.

What makes lesson study unique is that a group of teachers carries out the planning stage. This design is designed for a "focus group." Focus groups are made up of students experiencing difficulties with their studies. Furthermore, most observers focus on student activities during the learning process. They conduct "focus groups" to monitor students' performance. Observers will discuss why pupils cannot learn and try to propose adjusts to new instructional methods in the following cycle (Abdulbakioglu et al., 2022). Instructional practices of lesson study seem to have significantly impacted student emotional experiences and engagement. Tamura & Uesugi (2019) argue that such teacher-student synergy and growth are only possible through the collaboration of students in lesson study, as opposed to remote methods. In short, this method can be a path to creating student-centered courses, which was also pointed out by. Heemskerk & Malmberg (2020) highlight the critical role of cognitive engagement, emotional involvement, and both positive and negative emotions in mediating students' experiences during learning. By paying attention to the emotional responses and how engaged students become, educators can adjust their teaching strategies so that the learning environment supports and facilitates effective instruction (Wang et al., 2022).

There are "open class" activities in lesson study when teachers teach in front of observers (supervisors and peers) to acquire valuable feedback and create a more analytic learning environment (Riffert et al., 2020; Vasalampi et al., 2020). Observers—whether from within or outside the school—may attend open classes to provide feedback; however, the primary purpose is not evaluation, but rather to support teachers in refining and improving their instructional practices (Hrastinski, 2021). According to Allaire (2019), open classes rely on students' emotional engagement in their learning. The classroom environment, the approach to learning, interactions between students, and the presence of third-party observers can all significantly impact how comfortable a student feels. Student comfort is very important since it is closely links to the quality of learning. Comfortable students are more likely to participate actively, grasp the material more easily, and achieve greater learning results. However, discomfort in open classes may disrupt the teaching–learning process and reduce the anticipated benefits of Lesson Study.

Therefore, understanding the factors that influence student comfort in such settings is essential. Despite this importance, the effects of observer presence on students' emotional comfort and engagement during open classes remain underexplored. Recent research indicates that observer presence can significantly alter student affective states—enhancing concentration while reducing frustration and off-task behaviors—highlighting the need to investigate how external observers influence student experience in open class environments (Liu et al., 2024).

The current research will examine students' feelings while enrolling in open classes and how these affect their learning experiences. Related research reveals how students' classroom emotions are rarely addressed, and looking at it from the student's perspective. It is crucial to investigate how students perceive, deal with, and interact in achievement-emotion situations in class; it is also relevant—along with their inner psychological appraisals and emotions—to consider the behavioral level they show in such circumstances (Schlesier et al., 2024). Recognizing and responding to these consequences will be critical for adopting Lesson Study. It is crucial to begin courses in a way that makes students feel at ease and encourages them to participate actively in any discussions. Teacher-student collaboration and an encouraging classroom environment also influence students' feelings, which favorably impact their participation. This is in line with what was discovered by Satriani et al. (2020) and Tamura & Uesugi (2019), who argued for more collaborative and compassionate approaches based on empathy-centered, student-centered approaches.

The primary objective of this study was to bridge the gap by investigating emotional experiences and student characteristics associated with comfort in open classes within a Lesson Study. This study investigates the factors influencing students' comfort in open classrooms and analyzes the results to help teachers and students feel at ease and engaged during open class sessions. The originality of this study is that it explores the emotional and psychological components of students' experiences during open classes in lesson study. The insights of this study offer for reflection on ways to optimize teaching approaches for better student outcomes and engagement at SMA Negeri 8 Malang (Public Senior High School (SHS) 8 Malang).

METHOD

This study employed a descriptive quantitative method to explore students' affective responses, perceptions of teaching performance, and learning outcomes within the context of biology lesson study implementation. The descriptive quantitative method was chosen because it allows researchers to examine and describe the status of students' achievements, attitudes, behaviors, or other characteristics of a group of subjects (Macmillan & Schumacher, 2010). This approach aligns with identifying underlying emotional patterns and personal perceptions during open-class activities in the lesson study model.

The participants were 21 tenth-grade students from SMA Negeri 8 Malang, East Java, Indonesia, actively involved in biology classes using the Lesson Study framework. A purposive sampling technique was employed to ensure the selection of students who had direct exposure to the lesson study process. This technique was used to guarantee rich and relevant data, focusing on students with varying academic backgrounds and gaining extensive insight into the effects of lesson study on student experiences and outcomes (Riffert et al., 2020; Vasalampi et al., 2020).

The main instrument used was a researcher-developed questionnaire to identify students' affective responses, perceptions of teaching performance, and learning outcomes during lesson study. The 14-item questionnaire was structured into three leading indicators: 1) Student comfort in learning through Lesson Study; 2) Teacher performance during learning with Lesson Study; and 3) Student performance during and after learning with Lesson Study. The questionnaire used a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree), allowing students to express their level of agreement on statements related to their classroom experiences and emotional reactions.

To ensure content validity, the instrument was reviewed by two lesson study experts with extensive experience in collaborative teaching research. Furthermore, a Focus Group Discussion (FGD) involving 12 biology lecturers and teachers familiar with lesson study was conducted. This FGD provided critical feedback on the questionnaire items' clarity, relevance, and categorization. Furthermore, the results of the instrument trial on 20 respondents resulted in a Pearson correlation validity value of items between 0.497 and 0.792 and a Cronbach's Alpha reliability value of 0.909. This means the instrument is suitable for use.

The lessons adhered to the lesson study approach, a collaborative form of professional development in which teachers plan, teach, and review specific lesson units with their colleagues (Cerruto et al., 2023; Haryudin & Argawati, 2018). A descriptive statistical analysis of responses was incorporated to visualize and look for trends and patterns in the student responses. This enabled a holistic representation of student experiences, combining emotional nuance with interpretive clarity and providing empirical grounding to support the broader conclusions of the study. The data were presented descriptively, either numerically or visually, to enable the reporting of significant results and fortify overall findings (Agricola et al., 2020; Tamura & Uesugi, 2019).

RESULT AND DISCUSSION

The findings of this study have shed some light on possible affordances. Figure 1 reveals student responses about the comfort aspect of learning with Lesson Study. According to the data, 70% of students seemed comfortable in all open classes as per their comfort level. In particular, 60% of students felt relaxed, and 10% very comfortable. In contrast, 30 % of the students experienced unease, 19 % expressed some discomfort, and 11% experienced substantial discomfort. The difference clearly illustrates positive and negative emotions students feel in the open classes of lesson study.

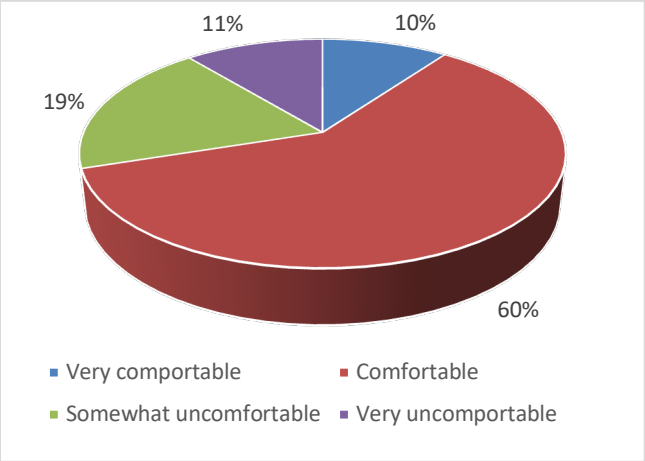

Figure 1. Students' Responses on the Comfort Aspect When Participating in Open Classes of Lesson Study

This study's results are in conjunction with the existing lesson study and its impact on student comfort and engagement literature. Previous studies have shown that lesson study effectively improves student understanding of the subject matter and creates collaborative, reflective learning among teachers (Cerruto et al., 2023;

Haryudin & Argawati, 2018). However, external observers in open classes may also promote apprehension among students who fear that strangers will judge their English proficiency (Schlesier et al., 2024). In this study, 30% of students reported feeling uncomfortable, possibly due to the presence of multiple observers, which may have created a sense of pressure or performance anxiety. Moktan & Uprety (2023) and Shrestha et al. (2021) have further suggested that it is crucial to create opportunities for a suitable learning environment for students so that they can focus and perform, calling into question the discomfort many of our students felt during open classes.

The fact that 70% of students reported feeling comfortable is a central plus point. It supports the idea that Lesson Study can establish an inclusive environment. This is vital for creating active learning experiences, meaning students can be part of the process, engaged and, more often, do better (Agricola et al., 2020; Madjdi et al., 2020). This discomfort could be severe for nearly 30% of students, and working more with teachers to develop strategies to minimize these negative feelings would seem appropriate. Through better practices in these open classes, teachers can play a crucial role in molding an environment that is inclusive and not intimidating so that all participants work with each other through the collaboration cycle, which would provide for reflection (Lo & Liu, 2022; Ong & Quek, 2023). In sum, our results highlight the need to incorporate students' positive and negative emotional responses during open classes to enhance efficiency from a practical perspective, provide smoother implementations of lesson study, and derive an ideal learning atmosphere.

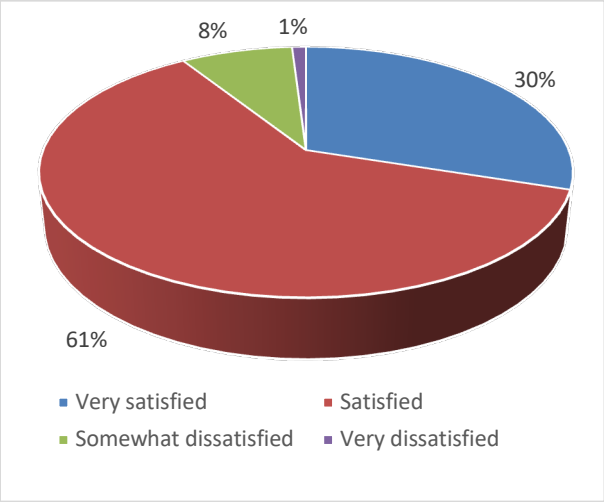

Figure 2. Students' Responses to the Teacher's Performance Aspect During Open Classes of Lesson Study

The student responses to aspects of teacher performance during learning with lesson study are illustrated in Figure 2. The data indicates that 91% of students provided positive teacher performance feedback. Specifically, 61% of students felt satisfied, and 30% felt very satisfied with their teachers' preparation, use of engaging learning media, ability to connect the material to real life, and opportunities for discussion and expression. Only 9% of students gave negative feedback, with 8% somewhat dissatisfied and 1% very dissatisfied. These findings suggest that most students perceive their teachers as well-prepared and effective in facilitating an engaging learning environment.

The findings align with existing research on the effectiveness of lesson study in enhancing teacher performance. Studies have shown that participation in lesson study significantly improves teachers' lesson planning, classroom management, and instructional delivery skills (Bungai et al., 2019; Msimanga, 2020). The high percentage of positive student responses reflects the benefits of lesson study, where collaborative lesson planning and reflective practices help teachers create more effective and engaging lessons (Renawati et al., 2023; Suryani et al., 2018) Additionally, the importance of clear communication and innovative teaching methods highlighted in the literature (Sakai et al., 2021) is evident in the positive feedback from students who appreciated the real-life connections and opportunities for discussion provided by their teachers.

The overwhelmingly positive student feedback underscores the importance of effective teacher performance in creating a conducive learning environment. Teachers' ability to engage students, connect lessons to real-life contexts, and foster a participatory classroom atmosphere is crucial for student success (Agricola et al., 2020; Madjdi et al., 2020). The findings suggest that lesson study enhances teachers' instructional skills and positively impacts student perceptions and experiences. This positive student feedback is critical for reinforcing the effectiveness of lesson study as a professional development tool and its role in improving educational outcomes (Mohammed, 2022; Nasser Sheykholeslami et al., 2021). Overall, these findings highlight the significant role of teacher performance in student engagement and satisfaction. By continuing to implement and refine lesson

study practices, educators can maintain high levels of student satisfaction and foster an environment conducive to learning and growth.

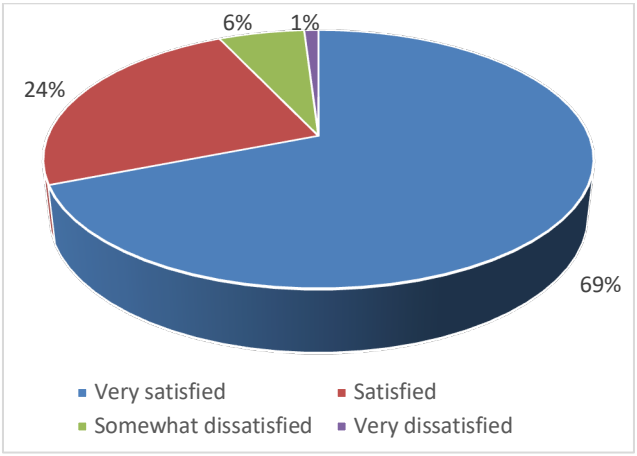

Figure 3. Students' Responses to Their Performance Aspect During the Open Classes of the Lesson Study

Figure 3 shows students' responses toward their performance during lesson study learning. For instance, the data shows that 93% of students felt they had performed well. More specifically, 69% felt very satisfied, and another 24% confident with their ability to understand colleagues' opinions while discussing, use the knowledge they acquired for real-world problem solving, be excited about facing challenges, or critically reflect upon new ideas. A single-digit percentage of students answered that they were unsatisfied, 6% dissatisfied, and 1% very dissatisfied. These data indicate a favorable impression of their performance during the lesson study.

Students who attended the implemented lessons gave positive feedback, and these findings were also in line with previous research on what lesson study can do for student learning. Lesson study nurtures cooperative and reflective learning to improve students' creative thinking (Haryudin & Argawati, 2018; Pahrudin et al., 2021). Lesson studies with cooperative learning models, for instance, the jigsaw method, have been reported to increase students' mastery and engagement in many subjects (Subiyantari et al., 2021; Triwahyuningtyas & Sesanti, 2021). Moreover, the lesson study involves academia from various fields, such as science, biology, and physics, in alignment with student engagement and learning achievements for betterment (Hakim & Sulistyowati, 2021; Pujani et al., 2021).

The research results stress the importance of engaging students and test scores in lesson study. The fact that so many students felt they could relate to the

lesson study and responded positively is a testament to how it creates a sense of worth in our learners, moving them from success-oriented tasks through performance-based solutions towards competency-driven skills. I do English this well. These are important in fostering students' critical thinking and problem-solving skills, which are required for both academic work and their preparation for professional success (Sabang & Suherman, 2018). The positive feedback of this study also shows the important role of collaborative learning and innovative teaching methods in lesson study (Fajrin & Wulandari, 2020; Insorio et al., 2023). In sum, our results underscore the importance of Lesson Study as a professional learning process that inspires changes in teaching behavior and leads to large gains in students' experiences and outcomes. The more educators integrate and enhance the use of lesson study, it can create an engaging and useful learning environment for all students.

CONCLUSION

This study explores students' views and emotions as they learn through open classes of lesson study over one school year at SMAN 8 Malang. The results indicate that most students felt positively charged, and the comfortable during open classes, had a positive perception of the teacher's performance, and felt that they performed better in class. This study highlighted how lesson study can help create a reflective and cooperative learning culture that benefits all participants, including the teachers. Lesson study also promotes a positive environment in the classroom that students see as conducive for their engagement and actual learning through improved lesson planning, classroom management, and instructional delivery. These results add to the current state-of-the-art research by providing evidence that Lesson study effectively enhances student engagement and performance. It is recommended that teachers prepare students for open classes through clear orientation to reduce anxiety and to improve comfort. Observers should adopt a supportive and non-intrusive approach, while student feedback should be integrated into post-lesson reflections. Future research should explore the long-term effects of open class participation on student motivation and learning engagement.

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