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Exploring Teachers' and Students' Perceptions on Collaborative Learning Implementation at Eleven Grade of SMA Tri Sukses

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Abstract. This study explores the perceptions of teachers and students regarding collaborative learning in Grade Eleven at SMA Tri Sukses. Using a qualitative design, the research involved 32 students from class XI M2, with data collected through questionnaires and interviews. The findings revealed that 55% of students felt collaborative learning facilitated the exchange of ideas, supporting critical thinking and communication skills. However, some students expressed concerns about the method's effectiveness in helping them master the material, with 52% remaining neutral on the comfort of working in groups. These results highlight the benefits of collaborative learning in enhancing discussions, teacher-student communication, and peer interaction, while also emphasizing the importance of managing group dynamics to ensure comfort and support for all students. The study offers valuable insights for educators aiming to improve collaborative learning strategies in secondary education.
***Keywords**: Collaborative learning, Learning approach, Teacher-Students' perception, Secondary education*

Abstrak. Penelitian ini mengekplor tentang persepsi guru dan siswa mengenai pembelajaran kolaboratif di kelas XI SMA Tri Sukses. Menggunakan desain kualitatif, penelitian ini melibatkan 32 siswa dari kelas XI M2, dengan pengumpulan data melalui kuesioner dan wawancara. Temuan menunjukkan bahwa 55% siswa merasa bahwa pembelajaran kolaboratif memfasilitasi pertukaran ide, mendukung keterampilan berpikir kritis dan komunikasi. Namun, beberapa siswa menyatakan kekhawatiran tentang efektivitas metode ini dalam membantu mereka menguasai materi, dengan 52% siswa yang bersikap netral mengenai kenyamanan bekerja dalam kelompok. Hasil ini menyoroti manfaat pembelajaran kolaboratif dalam meningkatkan diskusi, komunikasi antara guru dan siswa, serta interaksi antar teman sebaya, sekaligus menekankan pentingnya pengelolaan dinamika kelompok untuk memastikan kenyamanan dan dukungan bagi semua siswa. Penelitian ini memberikan wawasan berharga bagi pendidik yang ingin meningkatkan strategi pembelajaran kolaboratif di pendidikan menengah.
Kata kunci: *Pembelajaran kolaboratif, Pendekatan pembelajaran, Persepsi Guru dan Siswa, Pendidikan Menengah*

INTRODUCTION

The Industrial Revolution 4.0 has brought significant changes in various aspects of life, including education (Lase, 2019). The current paradigm of education is increasingly focused on the development of knowledge and knowledge innovation that can address the challenges of the times. According to Borrageiro & Mennega (2023), one of the important elements that must be considered in the era of the Fourth Industrial Revolution to drive economic growth and national competitiveness is the development of more innovative learning systems and the enhancement of graduates' competencies with 21st-century skills. These skills include learning and innovation skills, life and career skills, as well as information, media, and technology literacy skills. Therefore, it is important for the world of education to continue innovating and implementing learning approaches that can accommodate these developments.

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21st-century skills, also known as the "4Cs" (Critical Thinking, Communication, Collaboration, and Creativity), have become a primary focus in the development of educational quality. Husain (2023) state that these skills must be mastered by students in order to quickly adapt to an increasingly complex and dynamic world. In this era, students are required not only to master theoretical knowledge but also to be able to apply that knowledge in real contexts through effective collaboration and communication. Therefore, the implementation of learning models that encourage collaboration, discussion, and problem-solving is becoming increasingly relevant to enhance students' competencies in various aspects.

In the context of learning, the method that can accommodate those needs is collaborative learning (Fakomogbon & Bolaji, 2020). This method provides space for students to collaborate in groups, exchange ideas, and solve problems together. Huang & Lajoie (2023) explain that collaboration in learning provides opportunities for students to actively engage in the learning process, develop social skills, and contribute to group discussions. In addition, this method also allows students to build a deeper understanding through social interaction, thereby creating a more dynamic and participatory learning environment.

The theories underlying collaborative learning include cognitive theory, social constructivism theory, and motivation theory. Cognitive theory which proposed by Piaget, emphasizes the importance of social interaction in the learning process as it can accelerate students' cognitive development (Mcleod, 2024). Meanwhile, Vygotsky's social constructivism theory emphasizes that learning is a social process in which students build understanding through interactions with peers and their surrounding environment (Siregar et al., 2024). Motivation theory is also important in the context of collaborative learning, as cooperation among students can enhance learning motivation through a shared sense of responsibility in achieving group goals (Tran, 2019). These three theories support the implementation of collaborative learning as an effective strategy to enhance students' critical and creative thinking skills. In its implementation, collaborative learning creates an environment that encourages students to learn from each other and share knowledge through group discussions. According to Laal & Laal (2012), collaborative learning situations involve two or more individuals trying to solve problems or achieve learning goals together. (Hamsah et al., 2024) added that collaborative learning requires students to work in small groups without direct supervision from the teacher, making students more independent and active in completing the assigned tasks. In this case, the teacher acts as a facilitator who provides guidance and facilitates discussions, but does not take over the learning process directly.

Research on teachers' and students' perceptions of the implementation of collaborative learning in the classroom is very important because it can provide an overview of the effectiveness of this method in enhancing students' skills. Teachers' perceptions relate to the extent to which they understand the benefits and challenges of implementing collaborative learning in the classroom, as well as how they can facilitate a more active and participatory learning process. On the other hand, students' perceptions relate to their experiences in participating in collaborative learning, such as the extent to which this method helps them develop critical thinking, communication, and cooperation skills.

Considering the background and theoretical framework, this research aims to explore the perceptions of teachers and students regarding the implementation of collaborative learning in the eleventh grade of high school. The researchers hope that through this study, data will be obtained that can serve as a reference for educators in developing more effective learning strategies. In addition, the results of this research are expected to contribute to improving the quality of learning in schools, particularly in developing 21st-century skills that are essential for students' future success.

LITERATURE REVIEW

1. Collaborative Learning: Definitions and Key Concepts

Collaborative learning is an educational approach where students work together in small groups to achieve common goals and complete tasks through active interaction. Laal & Laal (2012) mentioned that collaborative learning occurs when two or more individuals strive to understand a concept or solve a problem together. Hamsah et al. (2024) added that collaboration involves every group member actively participating, sharing ideas, and building a shared understanding through constructive discussions. This creates a dynamic learning environment where students support each other and integrate knowledge gained from interactions among group members.

The main characteristics of collaborative learning include active interaction, positive interdependence, individual and group responsibility, and student involvement in the learning process (Salvador & Valdez, 2023). Unlike cooperative learning, which is more structured with clear task division, collaborative learning emphasizes the creation of shared knowledge without rigid task division. In this method, students are encouraged to exchange opinions, consider various perspectives, and discuss ideas to build a deeper understanding. In addition to enhancing students' understanding of the subject matter, collaborative learning also helps develop social and interpersonal skills, such as communication, teamwork, and conflict resolution abilities (Johnson & Johnson, 2014). These skills are very important to prepare students to face challenges in the real-world environment that demand effective collaboration.

2. 21st Century Skills in Education

21st-century skills, often referred to as the "4Cs" (Critical Thinking, Communication, Collaboration, and Creativity), are a set of essential competencies deemed important for students to face the ever-evolving challenges of the modern world (Haryani et al., 2024). According to Hamsah et al. (2024) these skills encompass the ability to think critically in analyzing information, communicate effectively, collaborate in teams, and create innovative solutions for complex problems. The Industrial Revolution 4.0 has increased the demand for these skills, as many jobs in the future will require the ability to adapt and solve problems that cannot be addressed with traditional approaches (Javaid et al., 2022). In addition, these skills are important in facing global challenges such as technological changes, changes in the work environment, and increasing social complexity. Education today must transform to instill these skills early on, because students who master 21st-century skills have a greater chance of succeeding in the workforce and in everyday life.

Collaborative learning plays an important role in developing these 21st-century skills. This method allows students to actively engage in discussions, work in teams, and share ideas with others, which are essential elements in the development of communication and collaboration skills (Stanikzai, 2023). For example, when students work together in small groups to complete

tasks, they need to interact, discuss, and solve problems together, thereby honing their critical thinking and problem-solving skills. In addition, a collaborative learning environment gives students the opportunity to hone their creativity, as they are encouraged to seek unique and innovative solutions. Through this process, students learn to think more broadly, view problems from various perspectives, and create more effective solutions. Therefore, the implementation of collaborative learning in the classroom becomes an important strategy to prepare students to meet the demands of 21st-century skills in the future.

3. Implementation of Collaborative Learning in Secondary Education

The implementation of collaborative learning at the upper secondary education level, such as in high schools, has become one of the approaches widely considered by educators in an effort to enhance students' skills relevant to the needs of the 21st century. Collaborative learning offers students the opportunity to learn in small groups, allowing them to interact actively and share knowledge with each other (Laal & Laal, 2012). Through collaborative activities, students are encouraged to become more engaged in the learning process and to develop critical thinking skills and creativity in problem-solving. However, the implementation of collaborative learning in the classroom is not always easy to achieve because there are several challenges that need to be addressed (Muti'ah et al., 2021). These challenges include time management, role distribution within the group, as well as differences in abilities and levels of participation among students. Teachers often face difficulties in creating an inclusive learning environment where all students can contribute effectively. Therefore, thorough strategies and preparations are essential to ensure that collaborative learning can run optimally.

The role of teachers in the implementation of collaborative learning is very important and acts as facilitators and mediators who help students achieve learning objectives (Leeuwen & Janssen, 2019). Teachers no longer serve merely as the primary source of knowledge, but rather as guides who facilitate the learning process through discussions and cooperation among students. In collaborative learning, teachers need to design tasks and activities that require cooperation and ensure that every student has the opportunity to participate. In addition, teachers must have skills in managing group dynamics, providing clear directions, and resolving conflicts that may arise during activities (Borg et al., 2011). This requires good communication skills from the teacher, as well as the ability to assess and provide constructive feedback to students. Thus, teachers play an important role in creating a learning environment that supports collaboration and encourages active student engagement in the learning process.

Students' perceptions of collaborative learning also play an important role in the effectiveness of this method in the classroom. Many students feel that collaborative learning provides an opportunity to learn more actively and deepen their understanding of the material through discussions with classmates (Loes et al., 2018). They can help each other and provide different perspectives on a problem, which can ultimately enrich their learning experience. However, not all students experience the same benefits, especially those who tend to prefer learning individually or have low self-confidence in contributing to group work. Some students may find it difficult to work in groups due to differences in academic abilities and communication skills. Therefore, it is important for teachers to create balanced groups and provide adequate guidance so that all students can participate effectively. Students'

understanding of the benefits of collaborative learning can enhance their motivation to engage actively, thereby creating a productive and inclusive learning environment.

METHOD

1. Research Design: Qualitative Descriptive Approach

This study adopts a qualitative descriptive research design, focusing on understanding the perceptions of teachers and students towards the implementation of collaborative learning. A qualitative approach is particularly suitable for exploring complex social phenomena where subjective experiences, thoughts, and feelings play a central role. Unlike quantitative methods that rely on numerical data and statistical analysis, qualitative research seeks to provide rich, detailed descriptions of participants' perspectives. The descriptive nature of this study means it aims to portray the current state of teachers' and students' perceptions without manipulating any variables or testing a hypothesis. By focusing on the natural setting of the classroom, the research aims to capture the real-world implementation of collaborative learning, providing a holistic understanding of its effectiveness and challenges. This approach allows the researcher to deeply explore the experiences of the participants, offering insights into how collaborative learning methods are perceived and how they impact the teaching-learning process in practice.

2. Research Setting and Sampling

The research was conducted at SMA Tri Sukses, specifically involving students from class XI M2 and their teachers. This school was chosen as the setting for the study due to its active implementation of collaborative learning methods, providing a suitable environment for examining the perceptions of both students and teachers. The participants were selected using purposive sampling, a technique where individuals are chosen based on specific criteria relevant to the research focus. In this study, the criteria included factors such as student activity levels and the class size, ensuring a sample that could provide meaningful insights into the collaborative learning process. The chosen sample consisted of 2 teachers and 32 students, a size that allowed for an in-depth exploration of individual and group experiences without becoming overwhelming for detailed qualitative analysis. By selecting participants who were actively engaged in classroom activities, the research aimed to gather data from those with firsthand experience and insights into the collaborative learning approach.

3. Data Collection Methods

To gather comprehensive data, the study employed a combination of questionnaires and interviews. The questionnaires were designed using a Likert scale, which allowed participants to express their level of agreement or disagreement with various statements related to collaborative learning. This method provided a structured way to measure perceptions quantitatively while still fitting within a qualitative framework, as it helped identify general trends and patterns in attitudes. The Likert scale responses ranged from "Strongly Disagree" to "Strongly Agree," capturing the intensity of participants' opinions. To complement the questionnaire data, semi-structured interviews were conducted to gain deeper insights. Interviews provided an opportunity for participants to elaborate on their thoughts and experiences, offering richer, more detailed data. The semi-structured format allowed the researcher to guide the conversation with specific questions while also giving the participants freedom to discuss their views in depth. This combination of methods ensured a robust data collection process, capturing both broad trends and nuanced individual perspectives.

4. Data Analysis Techniques

The data analysis process involved several key techniques, starting with data reduction, where the researcher summarized and condensed the raw data to focus on the most relevant points. In this stage, responses from the questionnaires and interviews were carefully examined to identify key themes, patterns, and significant quotes that captured the essence of participants' perceptions. By filtering out less pertinent details, the researcher was able to streamline the data, making it more manageable for further analysis. Following data reduction, the data display phase involved organizing the summarized information into tables, charts, or matrices. This visual representation of the data helped in categorizing responses, making it easier to interpret and identify trends across different participants. Finally, the process of drawing conclusions involved synthesizing the displayed data to identify key findings and answer the research questions. Through careful interpretation, the researcher was able to derive meaningful insights about the effectiveness, challenges, and perceptions surrounding the implementation of collaborative learning in the classroom.

5. Ensuring Reliability and Validity

To ensure the quality of the findings, the study placed a strong emphasis on reliability and validity. Reliability in qualitative research refers to the consistency and dependability of the data collection process. The researcher maintained consistency by using standardized procedures for administering questionnaires and conducting interviews, ensuring that all participants were given similar instructions and conditions. This approach helped to minimize variations in responses caused by differences in the data collection process. On the other hand, validity refers to the accuracy and credibility of the research instruments in measuring what they are intended to measure. The researcher took steps to enhance validity by carefully designing the questionnaire items to reflect relevant aspects of collaborative learning and by seeking feedback from experts to refine the questions. Additionally, triangulation was employed by using both questionnaires and interviews to gather data, allowing the researcher to cross-check and compare findings from different sources. This comprehensive approach helped to ensure that the results accurately reflected the perceptions of teachers and students, providing a reliable and valid basis for drawing conclusions about the effectiveness of collaborative learning.

RESULT AND DISCUSSION

RESULT

Teachers' and Students' Perception

The questionnaire instrument comprised 10 items specifically designed to assess participants' perceptions. Each question was carefully adapted to align with the theoretical concepts and key elements of perception and collaborative learning. The construction of these questions was intended to facilitate the categorization of responses, allowing the researchers to systematically group them according to the specific objectives of the study. This approach ensured that the questions effectively captured the relevant aspects of the participants' perceptions regarding the implementation of collaborative learning.

Table 1 The Result of Questionnaire

No	Questions	SA % (n)	A % (n)	N % (n)	D % (n)	SD % (n)

1	Collaborative learning is effective in building interaction within the classroom.	48% (15)	32% (10)	19% (6)	-	-
2	Collaborative learning makes the classroom atmosphere more active and conducive.	39% (12)	32% (10)	29% (9)	-	-
3	Collaborative learning helps you learn to give and exchange ideas during discussions.	32% (10)	55% (17)	13% (4)	-	-
4	Collaborative learning creates a comfortable classroom environment.	16% (5)	26% (8)	52% (16)	3% (1)	3% (1)
5	Participating in collaborative learning makes it easier for you to understand the material.	19% (6)	45% (14)	23% (7)	13% (4)	-
6	In collaborative learning, you tend to listen more to your peers rather than actively participate in discussions.	3% (1)	13% (4)	26% (8)	35% (11)	23% (7)
7	Collaborative learning helps you solve a topic or problem in learning.	23% (7)	61% (19)	16% (5)	-	-
8	Collaborative learning increases your use of English when communicating with team members during group discussions.	16% (5)	35% (11)	39% (12)	6% (2)	3% (1)
9	Collaborative learning is a method that helps you understand the material effectively during the learning process.	3% (1)	61% (19)	35% (11)	-	-
10	Learning through collaborative learning meets your expectations in the learning process.	13% (4)	26% (8)	42% (13)	16% (5)	3% (1)

The results of the study provide valuable insights into students' and teachers' perceptions of collaborative learning, revealing both the positive aspects and areas that may need improvement. A significant number of participants (48%) strongly agreed that collaborative learning is effective in fostering interaction within the classroom, which aligns with Vygotsky's social constructivist theory. This theory emphasizes the importance of social interaction in cognitive development, and the findings support this by showing that group work encourages students to engage with each other, share ideas, and solve problems collectively. Additionally, 39% of students agreed that collaborative learning creates a more active and conducive classroom atmosphere, a finding that correlates with Piaget's cognitive theory. Piaget's work stresses that active engagement enhances learning, and the positive classroom environment seen in the results reflects how group-based interactions can stimulate participation and motivation.

Another key finding is that 55% of students agreed that collaborative learning helps them exchange ideas during discussions, supporting Dillenbourg's definition of collaborative learning as a process where individuals work together to solve problems. This interaction not only facilitates the sharing of ideas but also nurtures critical thinking, as students are encouraged to explore various viewpoints. However, the question about whether collaborative learning creates a comfortable classroom environment yielded mixed responses, with 52% of students remaining neutral. This suggests that while collaborative learning is seen as effective in many ways, it may not always create the desired sense of comfort for every student. This result might be explained through motivation theory, which suggests that students' comfort and

intrinsic motivation are key to engagement. Some students may feel uneasy in group settings, affecting their overall perception of the learning environment.

In terms of learning outcomes, 45% of students agreed that collaborative learning makes it easier to understand the material, aligning with constructivist principles. According to this theory, students learn best when they are actively involved in the learning process, and the findings support the idea that group work provides an opportunity for students to clarify concepts and deepen their understanding through peer interactions. Moreover, 61% of students reported that collaborative learning helps them solve problems or complete tasks, reinforcing the idea that collaborative learning fosters critical thinking and problem-solving skills. Finally, 35% of students felt that collaborative learning improved their use of English during discussions, which ties back to Vygotsky's theory of social language development, where language skills are honed through social interaction. While the overall perception of collaborative learning is positive, the study also highlights that not all students have the same level of satisfaction, as indicated by the mixed responses to whether collaborative learning meets their expectations. This suggests that while the method is generally effective, there may be individual differences in how students engage with and benefit from collaborative learning, which warrants further exploration.

DISCUSSION

The findings of this study highlight the positive impact of collaborative learning on classroom interaction, engagement, and understanding, aligning with key educational theories such as Vygotsky's social constructivism and Piaget's cognitive theory. The majority of students (48%) strongly agreed that collaborative learning fosters interaction within the classroom, which resonates with Siller & Ahmad (2024) idea that social engagement is central to cognitive development. In group settings, students have the opportunity to exchange ideas and problem-solve together, reflecting Vygotsky's notion of scaffolding**,** where peers support each other's learning. Additionally, the 39% of students who agreed that collaborative learning creates a more active classroom environment are consistent with Piaget's view that active, hands-on learning stimulates cognitive growth, promoting engagement through social interaction and knowledge construction.

The study also found that 55% of students agreed that collaborative learning helps them exchange ideas during discussions, reinforcing Dillenbourg's definition of collaborative learning as a joint problem-solving activity. This collaborative approach fosters critical thinking, allowing students to challenge and refine their understanding through peer interaction. However, mixed responses about the comfort level of students in collaborative settings (52% neutral) suggest that not all students feel at ease in group dynamics, aligning with Ryan & Deci (2020) Self-Determination Theory. The discomfort some students experience may stem from a lack of autonomy or confidence in group work, indicating that more support may be needed to ensure all students feel comfortable and included in the learning process.

Finally, the study reinforces the idea that collaborative learning enhances understanding and language skills. Forty-five percent of students reported that collaborative learning made it easier to understand the material, consistent with constructivist principles that emphasize active

learning and peer support. Furthermore, 35% of students felt that their English language skills improved through group discussions, reflecting Vygotsky's belief that language development occurs through social interaction. Overall, while collaborative learning is seen as an effective method, the study suggests that varying student preferences and comfort levels need to be considered. Future research could explore strategies for creating more inclusive environments that cater to the diverse needs of students, ensuring that collaborative learning is maximally effective for all learners.

CONCLUSION

Based on the discussion, it can be concluded that the implementation of collaborative learning in class XI at SMA Tri Sukses has a positive impact on student interaction, engagement, and understanding, aligning with educational theories such as Vygotsky's social constructivism and Piaget's cognitive theory. The majority of students found collaborative learning effective in fostering interaction and creating a more active classroom environment, which supports their cognitive development through group discussions. Additionally, this approach has proven to help students exchange ideas, enhance critical thinking skills, and solve problems together. However, there were varying perceptions, with some students feeling uncomfortable in the collaborative learning setting, highlighting the need to address group dynamics to ensure comfort for all students. The improvement in understanding the material and English language skills observed among students suggests that collaboration also enriches their communication abilities. While collaborative learning is generally effective, it is important to tailor this method to meet the needs and comfort levels of individual students to maximize learning outcomes. Therefore, further research is needed to explore the factors influencing student comfort and motivation in collaborative learning contexts. In conclusion, collaborative learning is a relevant and effective method, but adjustments should be made to make it more inclusive and support the diverse characteristics of students.

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