

Student's Perception of the Effectiveness of Teacher Communication in Guiding Problem-Based Learning Projects

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Abstract

Communication between teachers and students is an important element in problem-based learning (PBL). This study aims to explore students' perceptions of the effectiveness of teacher communication in guiding PBL projects, as well as how these perceptions affect student engagement and learning outcomes. A qualitative approach with a correlational descriptive design was used to explore the relationship between teacher communication and the level of student engagement. The findings of the study show that the clarity of instruction, constructive feedback, teachers' ability to facilitate group discussions, and the use of technology have an important role in improving students' understanding and engagement in PBL. Most students assessed teacher communication as effective, but there were still challenges related to the use of technology and the involvement of all group members in discussions. The results of the correlation analysis showed a significant positive relationship between students' perception of teacher communication and their level of involvement in PBL projects, as well as contributing to better learning outcomes. This research provides insights for the development of more effective communication strategies in supporting problem-based learning, with special attention to clear instructions, relevant feedback, and appropriate use of technology.

Keywords: Student Perception, Communication Effectiveness

INTRODUCTION

Communication between teachers and students is a fundamental element in a successful learning process. In the context of growing education, Problem-Based Learning (PBL) has been recognized as one of the effective approaches to increase student engagement and understanding. PBL encourages students to work together in solving real problems, and teachers act as facilitators who provide direction, guidance, and support needed during the process (Jaganathan, 2002). One of the keys to PBL's success is effective communication

between teachers and students. Clear and open communication can help students understand the material better, increase their engagement, and motivate them to think critically and creatively in solving problems (Hattie & Timperley, 2007).

The effectiveness of teacher communication in guiding problem-based learning projects is important because it can affect the extent to which students feel supported in their learning process. Research by Shazlinda (2019) shows that there is a significant positive influence between teacher-student communication and student learning behavior. In line with this, Schunk (2012) also notes that constructive and timely feedback from teachers can accelerate students' understanding and improve their performance. In addition, Johnson and Johnson (2015) assert that good communication between students facilitated by teachers can develop students' collaboration and problem-solving skills.

However, although teacher communication is considered one of the key factors in PBL success, there are not many studies that specifically explore students' perceptions of the effectiveness of teacher communication in this context. Most existing research tends to focus more on how teacher communication affects student motivation and engagement in general, or on specific aspects of communication, such as instruction clarity and feedback (Hattie & Timperley, 2007; Khumaidi, 2024). Therefore, it is important to examine more deeply about students' perceptions of various aspects of teacher communication in PBL, as well as how these perceptions affect the success of the PBL project itself.

PBL requires students to think critically and work in groups to solve complex problems, so the teacher's ability to manage communication is crucial. Research conducted by Kanca (2021) ¹found that problem-based collaborative learning strategies have proven to be effective in making students more engaged, motivated to collaborate during the online teaching and learning process. This is supported by research by Setiawati (2021), which states that it can be explained that the better the teacher's communication with students, the higher the student's motivation to learn. And vice versa, if there is no good communication, it will reduce students' motivation to learn.

In the PBL process, students are faced with situations where they have to identify problems, formulate solutions, and work together in teams to complete the task. Effective communication is crucial because it can help students to align their understanding of a given task, clarify instructions that may be ambiguous, and provide opportunities to share their ideas. Therefore, this study aims to explore how students perceive the effectiveness of teacher

communication in the context of PBL and how this perception can affect their engagement and learning outcomes.

This research is not only important in the context of understanding the role of teacher communication in PBL, but also to provide recommendations for the development of more effective communication strategies in supporting the success of problem-based learning. Communication is also important in leadership (Priadi, 2023) and ethics are needed in communicating (Rahmanita, 2021). By understanding student perceptions, teachers can identify areas that need improvement in their communication styles, as well as develop more appropriate methods to support students in the learning process. In this case, this research will contribute to the literature on problem-based learning and educational communication, as well as become the basis for the development of better teaching practices.

Communication in education is a complex aspect, involving various components, including clarity of instruction, providing feedback, the ability to facilitate discussions, and the use of technology to support such communication. The clarity of instructions is the first aspect that needs to be considered. Clear and easy-to-understand instructions will make it easier for students to follow the learning and reduce the potential for confusion (Hattie & Timperley, 2007). Furthermore, the feedback provided by teachers also plays an important role in improving students' understanding and accelerating their learning process (Schunk, 2012). In addition, the teacher's ability to facilitate group discussions is important in PBL because students can exchange information and ideas to solve the problems faced (Johnson & Johnson, 1994).

The use of technology in education, especially in PBL, is also a major concern in this study. Technology can expand the space for communication between teachers and students, as well as between students. The use of online platforms for discussions or other collaboration tools can increase student interaction, both inside and outside the classroom (Khumaidi, 2024). Kanca (2021) also found that technology can facilitate more dynamic communication and increase student engagement in problem-based learning projects.

Through this study, it is hoped that new insights can be found on how teacher communication in the context of PBL affects student perception and the extent to which this communication contributes to learning success. The results of this study are expected to provide a strong basis for the development of more effective communication strategies, both in the context of PBL and in learning in general. This will certainly be very beneficial for

teachers in improving the quality of their learning and to achieve better learning outcomes for students.

METHOD

This study uses a qualitative approach with a correlational descriptive design to explore students' perception of the effectiveness of teacher communication in guiding problem-based learning projects (PBL). The correlational descriptive design was chosen because this study aims to describe and analyze the relationship between students' perception of teacher communication and the level of involvement and learning outcomes in the context of PBL. This approach allows researchers to dig deeper into how communication conducted by teachers can affect the problem-based learning process and how students' perception of such communication can contribute to the success of PBL.

RESULTS

This study aims to explore students' perception of the effectiveness of teacher communication in guiding problem-based learning projects (PBL). The main focus of this study is to explore the relationship between students' perceptions of various aspects of teacher communication and how these perceptions affect their engagement and learning outcomes in the context of PBL. Based on data obtained through questionnaires and semi-structured interviews, the following results and discussions are presented that include the main findings of this study.

1. Students' Perception of the Clarity of Teacher's Instructions

One of the key aspects of teacher communication explored in this study is the clarity of instructions given during the PBL project. The results of the data analysis showed that the majority of students gave a positive assessment of the clarity of the instructions given by the teacher. Around 85% of respondents stated that the instructions given by teachers were very clear and easy to understand. This shows that teachers are able to provide proper direction regarding the goals of the PBL project and the steps that students need to take in completing their assignments.

The high clarity of instruction makes it easier for students to understand the material being taught, reduces confusion, and ensures that they know what is expected of them. Research by Hattie and Timperley (2007) supports these findings by stating that the clarity of instruction is essential in learning to improve student understanding. In the context of PBL, clear instruction not only helps students understand the project's objectives, but also facilitates effective collaboration within the group.

However, even though most students perceive the instruction as obvious, some students still feel that there is some confusion related to some specific elements in the project. Some students report that the instructions related to the use of technology in PBL are not fully understood. This reflects the importance of deeper communication on how to use online platforms or other collaboration tools, which can enrich students' PBL experience (Kanca 2021)

2. Students' Perception of Teacher Feedback

The second aspect analyzed was the effectiveness of the feedback provided by teachers during the PBL process. The data shows that most students, which is about 78%, feel that the feedback given by teachers is very constructive and beneficial for the development of their understanding. Feedback provided by teachers is not only limited to criticism of the project's final results, but also includes the work process, giving students the opportunity to correct mistakes and improve their performance on an ongoing basis.

Schunk (2012) explained that constructive feedback can accelerate students' understanding and improve their performance. The results of this study confirm that statement, with students reporting that timely and clear feedback from teachers helps them to understand their mistakes and provide the necessary direction for improvement. This feedback also boosts students' confidence as they feel that they are supported in their learning process.

However, although most students gave positive assessments of the feedback, some students reported that feedback from teachers was sometimes too general and did not provide clear directions for further improvement. This shows that although feedback is important, diversity in providing feedback according to the needs of individual students is indispensable to improve the effectiveness of communication in PBL.

3. Students' Perception of Teachers' Ability to Facilitate Group Discussions

PBL demands students to work together in groups, and effective communication between teachers and students, as well as between fellow students, plays a very important role in the success of the project. The data shows that about 82% of students feel that teachers have a good ability to facilitate group discussions and encourage effective collaboration. Teachers have managed to create an environment that supports active discussion, where students can share ideas with each other and work together to solve problems.

Johnson and Johnson (2015) emphasized that good communication between students facilitated by teachers can develop collaboration and problem-solving skills. The findings of this study corroborate this view, with students reporting that they felt more motivated to

contribute to group discussions when teachers actively facilitated the conversation and provided space for each group member to express their opinions.

However, some students noted that on some occasions, teachers focused too much on one or two more vocal students in the group, thus reducing the opportunities for other students to speak and participate in discussions. This shows the importance of managing discussions more evenly and involving all students in each conversation, which can improve their engagement and learning outcomes in PBL projects.

4. Students' Perception of the Use of Technology in Problem-Based Learning

One of the interesting findings in this study is the role of technology in supporting communication between teachers and students. The results showed that about 75% of students felt that the use of technology, such as online learning platforms and collaboration tools, was very helpful in facilitating communication during PBL projects. Technology allows students to communicate more flexibly, both inside and outside the classroom, and makes it easier to access additional resources that support their learning.

(Kanca 2021) found that technology can improve the quality of communication in PBL, and the results of this study support these findings. The use of online platforms for discussion allows students to share ideas, provide feedback, and complete group assignments collaboratively, even outside of class hours. Technology also facilitates communication between teachers and students, allowing teachers to provide instruction and feedback more efficiently.

However, some students reported that they had difficulty accessing or using some of the technology platforms used in PBL projects. This suggests that while technology can improve communication, it is important for teachers to ensure that students have a sufficient understanding of how to use the technology before applying it in learning. The use of technology must be balanced with sufficient training and support to maximize its benefits in learning.

5. The Relationship Between Teacher Communication Perception and Student Engagement and Learning Outcomes

One of the main objectives of this study is to examine the extent to which students' perception of teacher communication affects their involvement and learning outcomes in PBL. The results of the correlation analysis showed that there was a significant positive

relationship between students' perception of teacher communication and their level of involvement in the PBL project.

In addition, regression analysis shows that teacher communication, which includes clarity of instruction, feedback, discussion facilitation, and use of technology, also contributes significantly to student learning outcomes. Students who feel that teacher communication is effective tend to have better learning outcomes in PBL projects. This confirms that good communication not only affects student engagement, but also contributes to improving their learning outcomes.

DISCUSSIONS

Overall, the findings of this study confirm the importance of effective communication in supporting the success of PBL projects. Clarity of instruction, constructive feedback, good discussion facilitation, and proper use of technology are key in improving student engagement and their learning outcomes. This research makes an important contribution in understanding how different aspects of teacher communication can affect students' learning experience in the context of PBL.

Based on these findings, it is recommended that teachers continue to develop their communication skills, especially in providing clear instructions, providing timely and constructive feedback, and facilitating group discussions evenly. The use of technology in learning also needs to be optimized, by ensuring that all students have adequate access and sufficient understanding of the use of technology used in PBL.

The results of this study also show the importance of a more individualized approach in providing support to students, by paying attention to the communication needs and preferences of each student. In the future, further research can be conducted to explore more deeply the influence of other factors, such as teachers' individual communication styles and student characteristics, on the effectiveness of communication in PBL.

CONCLUSION

This study emphasizes the importance of effective communication between teachers and students in supporting the success of problem-based learning (PBL). Clear communication, constructive feedback, equitable discussion facilitation, and the right use of technology have been proven to contribute to student engagement and learning outcomes. The clarity of the instructions delivered by the teacher is one of the most influential aspects,

with most students stating that the instructions given are very clear and easy to understand. This reflects that proper instruction helps students understand the project objectives and the steps to take to complete their tasks, as well as facilitate collaboration in groups. However, some students reported confusion regarding the use of technology in PBL projects, which suggests that while technology can improve communication, a more in-depth explanation of how it can be used to optimize the student learning experience is needed.

The feedback provided by teachers is also a significant factor in improving student understanding. Most students feel that constructive and timely feedback helps them in correcting mistakes and improving their performance. However, some students want more specific and targeted feedback, which shows that diversity in providing feedback according to the individual needs of students is indispensable to improve the effectiveness of communication in PBL.

The teacher's ability to facilitate group discussions was also found to have a great influence on the success of PBL. Most students feel more motivated to actively participate in discussions when teachers can create an environment that supports collaboration. However, there are some reports that show that teachers sometimes focus more on students who are more vocal, so opportunities for other students to participate are limited. Therefore, more equitable management of discussions is essential to ensure that all students have the opportunity to contribute to group conversations.

The use of technology in problem-based learning has also proven to be effective in supporting communication between teachers and students, as well as between students. Online learning platforms and collaboration tools allow students to communicate more flexibly, both inside and outside the classroom. However, there are some obstacles related to the use of technology, such as difficulties in accessing the platform or understanding how to use it. Therefore, it is important for teachers to ensure that students have a sufficient understanding of the technology being used, as well as provide the necessary support so that the technology can be used optimally.

Overall, this study highlights the importance of effective communication strategies in PBL, both in providing clear instructions, providing constructive feedback, facilitating inclusive discussions, and utilizing technology wisely. This research provides a solid foundation for the development of better teaching practices, with a focus on improving teachers' communication skills and providing more individualized support to students. It is

hoped that the results of this research can be a guideline for teachers to improve the quality of learning and achieve more optimal results in problem-based learning.

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