

Implementation Of Islamic Values-Based Pbl In Mathematics Learning For The Collaborative Development Of MTs Students

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ABSTRACT

ABSTRACT Collaboration skills are one of the essential 21st-century competencies that students must possess to face global challenges. However, mathematics learning at MTs Muhammadiyah 11 Dengok is still conducted using conventional methods, which do not effectively foster students' collaborative abilities. This study aims to describe the implementation of the Problem-Based Learning (PBL) model integrated with Islamic values in mathematics learning to develop students' collaboration skills. The research employed a qualitative descriptive approach, with data collected through a closed questionnaire distributed to 18 seventh-grade students after the learning process. The results indicated that the implementation of Islamic values-based PBL successfully enhanced students collaboration skills. This was evidenced by an average score of 87.6%, falling into the "very good" category. These findings suggest that integrating Islamic values into the PBL model not only promotes positive character development but also effectively improves students' collaborative competence in mathematics learning.

Keywords: Problem-Based Learning, Islamic values, collaboration, mathematics, 21st-century skills

58 Introduction

21st century proficiency is a skill that must be mastered by students. One of them is collaboration skills. Mathematics, as one of the compulsory subjects for junior high school students, is often a scourge for students because it is considered difficult and less interesting (Hasibuan & Nugraha, 2023). This is because many students have difficulty understanding abstract mathematical concepts (Wiryanto, 2020). Especially when presented through conventional teaching methods, it can result in low motivation and student learning outcomes. Therefore, an educator must choose the right and appropriate learning model.

Collaboration skills are essential for students in the face of 21st-century competition because they allow them to work together in groups (Ayu et al., 2018). Therefore, collaboration skills are essential for classroom activities because they can add to students' knowledge to achieve learning goals. In addition, collaboration is also able to improve affective and psychomotor aspects in students (Fatimah, Hendayana, & Supriyatna, 2018).

The Problem Based Learning (PBL) model is a learning model that actively involves students in their learning. This PBL model emphasizes that students are required to be more independent so that they can build their own knowledge (Muhammad, A., 2020). Deep mathematics learning, the PBL model can help students learn independent communication, solve problems, and work together (Hartina et al., 2022).

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To produce students who have good religious qualities, every teacher must strive for quality learning that is conditional with positive values. Because it should be the main task of teachers, in addition to delivering material, it is also necessary to instill positive values in learning (Imamuddin, et al, 2020a). Learning based on Islamic values can shape and make students with good ethics (noble character) and high religious attitudes (Pratiwi, 2019).

From the results of observations made by the researcher, information was obtained that in mathematics learning students at MTs. Muhammadiyah 11 Dengok have implemented an independent curriculum, but learning in the classroom is still conventional, in other words learning Mathematics is still centered on the emphasis on the delivery of material and the completion of individual tasks. Therefore, this study wants to describe how the implementation of PBL based on Islamic values in mathematics learning for the collaborative development of students so that it is hoped that this new model can make students more active and enthusiastic in participating in learning.

59 Literature Review

Problem Based Learning (PBL) is an instructional approach that uses real-world problems as a context for students to develop critical thinking skills, problem-solving abilities, and acquire relevant knowledge related to learning materials. According to Widayanti and Nur'aini (2020), PBL fosters students' creative mathematical thinking by encouraging them to solve problems in unique ways. In this model, students are required to address problems and construct strong arguments based on evidence. PBL provides students with opportunities to actively participate in tackling real-world issues. This approach also enhances students' collaboration skills and prepares them to face future challenges. The main goal of PBL is to develop critical thinking, problem-solving skills, and content knowledge to effectively respond to problems.

PBL emphasizes the mastery of content knowledge as a foundation for constructing logical arguments and solutions. This model prioritizes group discussions, where students are encouraged to work in small groups of four to eight members to discuss, share ideas, and develop solutions collaboratively (Choirunisa et al., 2023).

The general characteristics of the PBL model include:

- a. Learning begins with a relevant problem.
- b. The problem must be directly connected to students' real-life context.
- c. Lessons are organized around the problem, not strictly by academic disciplines.
- d. Students are given significant responsibility to manage and direct their own learning process.
- e. The use of small group collaboration is emphasized.
- f. Students are required to demonstrate what they have learned in the form of a product or performance.

Collaborative Ability

Collaboration is a form of cooperation between two or more individuals who aim to achieve a mutually agreed-upon goal (Sipahutar, 2022). Collaborative skills refer to the interaction activities among students, working together to achieve a shared and expected objective (Afdilla et al., 2024).

Students' collaborative ability is crucial in mathematics learning, as they need to work effectively in groups to face modern-day competition (Wulandari, Z., 2023). According to Trilling and Fadel (as cited in Wulandari, Z., 2023), students are considered to have collaborative skills

if they meet the following three components:

- a. Taking responsibility for all group members and contributing actively;
- b. Accepting others' ideas on how to achieve a common goal;
- c. Demonstrating the ability to work well together and respecting differences within the group.

60 Research Methods

The research conducted is a type of descriptive qualitative research. The qualitative research according to J. Moleong is a Research procedures that produce descriptive data in the form of written or oral sentences from people or research subjects as well as observed behaviors and circumstances. The data collection was obtained from the distribution of questionnaires. The distribution of questionnaires to respondents was carried out after learning using the Islamic value-based PBL model was completed. Questionnaire is a method of data collection that involves giving respondents a series of written questions to answer (Sugiono, 2009).

The respondents in this study were grade VII students at Madrasah Tsanawiyah 11 Dengok as many as 18 students. Furthermore, the data obtained will be narrated to get an overview of the application of the PBL model based on Islamic values in mathematics learning in grade VII MTs. Muhammadiyah 11 Dengok. According to Moleong (2017) there are three phases in the research, namely the pre-field stage, the field work stage and the data analysis stage.

61 Result and Discussion

The type of questionnaire in this study is a closed questionnaire, because respondents only choose one of the answers that are considered most appropriate. The data collection tool in this study is in the form of a questionnaire that has been prepared with written questions intended to obtain data from respondents' answers presented in the form of scales. A scale shape that used in the form of a Likert Scale with a minimum value range of 1 and a maximum of 4. Collaborative skills are the ability to work together effectively and coordinate with a team to achieve a common goal. Collaboration skills are the skill of working together between two or more students to solve problems in an organized manner by sharing responsibility, accountability, to achieve a common understanding of the problem and its solutions (Ahmad, 2018). Based on the observations made in mathematics learning at MTs Muhammadiyah 11, the results of the questionnaire sheets observed by the researcher were obtained and presented in the following table.

From the results of the questionnaire obtained, in the first indicator, namely I actively discussed with my group friends to solve the problems given, there were three answer criteria, namely strongly agreeing as much as 72.2% Respondents, 22.2% answered yes and 5.5% or 1 in 18 students answered no. This result is also the same as the tenth indicator, namely I feel that Islamic values such as honesty, fairness, and cooperation are important in teamwork. The second indicator is "I always listen to other people's opinions before giving a response". 61.1% of students strongly agree and 38.9% of students agree, this shows an attitude of willingness to give in and not be selfish. In the third indicator, 11.1% of students strongly agreed, 83.3% agreed and 5.5% disagree. From this data, it illustrates that the existence of Islamic value-based PBL learning through group discussions can help each other have difficulties in understanding concepts to achieve the same goal.

Group division in Islamic values-based PBL learning is also able to give rise to a fair attitude in the division of tasks to complete tasks together as the results of the fourth indicator as 72.2% strongly agree and 27.8% of students answer yes. In addition to being fair in the division of groups, in pbl based on Islamic values, students always engage in deliberation to reach an

agreement as a form of applying the fourth precept of Pancasila in daily life. In this fifth indicator, students answered 66.7% answered strongly in agreement and 33.3% agreed. The sixth indicator I try to be honest in conveying the results of the group's work, both true and false, students strongly agree as much as 33.3% and 66.7% agree, this is evidenced by their courage in presenting the results of the group discussion in front of the class. On the seventh indicator Students strongly agree as much as 44.4%, agree 50% and disagree 5.5%. This indicator shows that there is a fair division in doing assignments so that no student is idle or idle during the discussion. In the eighth indicator, students were invited to not only listen but also to be able to appreciate the opinions of others even though they differed from their opinions. The value on this indicator is 44.4% strongly agree and 55.5% agree. Meanwhile, in the ninth indicator , students strongly agreed with 72.2% and agreed with 27.8%.

The percentage of students from the ten indicators obtained a minimum score of 62.5% and a maximum score of 100%. Of the 18 students , not a single student answered strongly disagreed, but there was only 1 student who answered disagree with only a few indicators , namely the first, third, and seventh indicators and the tenth and the rest or 17 students answered strongly in agreement and agreed so that an average score of 87.6% or in the very good category was produced.

62 Conclusion

The implementation of pbl based on Islamic values in mathematics learning can develop collaboration skills in students, this is evidenced by the results of the questionnaire obtained during the research. The results of the questionnaire as many as 59% or 10 students out of 18 students stated that they strongly agreed, while 7 out of 18 students agreed and only 1 student disagreed . The average result of the student's collaboration score reached 87.6% or in the very good category.

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