

STUDENTS' RESPONSES OF MUHAMMADIYAH 3 BANJARMASIN JUNIOR HIGH SCHOOL TO LOCAL WISDOM BASED LEARNING IN SCIENCE SUBJECTS

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Abstract. Local wisdom-based learning in science subjects is relevant in the modern era to improve students' understanding of science concepts while linking them to the surrounding culture and environment. The problem is the lack of studies that explore how the application of local wisdom can influence students' interest, understanding and motivation in learning science. This study examines the response of Muhammadiyah 3 Banjarmasin Junior High School students to local wisdom-based science subjects. The focus of this study is to understand how often teachers relate science materials to the culture and environment around students, and how students respond to this approach. This study will collect data on students' views on the importance of local wisdom in science learning. This research uses a quantitative approach with a survey method. The number of research subjects was 41 7th grade students of Muhammadiyah 3 Banjarmasin Junior High School. The instrument used was a closed questionnaire and was distributed in the class of students under study. The questionnaire has 20 questions with a scale from 1-4 which is assessed based on the criteria "strongly disagree to strongly agree". The results of this study showed that students chose a positive response to local wisdom-based science learning. As many as 73.17% of students agreed that science learning associated with local wisdom made them more interested in protecting the environment. Most students also agreed that the application of local wisdom can increase creativity (68.29%), help them remember science material (51.22%), and provide additional insight into the environment and local culture (85.37%). Overall, the results of this study show that local wisdom-based learning not only improves students' understanding of science concepts, but also strengthens environmental awareness and appreciation of local culture.

Keywords: Local Wisdom-Based Learning, Response, Science

1 Introduction

Natural Science (IPA) is one of the subjects contained in the junior high school curriculum. Natural Science is closely related to nature and the various events that occur in it. Natural Science is not only a unity in the form of facts, concepts, or principles, but also a process of discovery. Science learning is a method that provides students with scientific knowledge, perspectives, skills, and values (Yantol et al., 2018). Through science learning, students are expected to master science conceptually and recognize natural phenomena that occur around scientifically.

Science learning needs to be pursued so that there is a balance between scientific knowledge itself and the cultivation of scientific attitudes, as well as values that exist and develop in society. Learning experiences that show more links between conceptual elements will make the science learning process more effective. By introducing students to everyday experiences, science learning becomes more interesting and fun for students because they gain knowledge directly from what they observe

(Laksana, et al., 2019). Thus, through science learning students can understand the surrounding environment and can apply science concepts to everyday life and can scientifically explain natural phenomena that occur around them, so that learning becomes more effective. One alternative way for students to easily understand the surrounding environment is by integrating local wisdom in science learning.

Local wisdom is one of the elements of Indonesia's cultural wealth that should be preserved. Local wisdom is the intellectual heritage of a community that is directly related to their living environment, so it can be used as a more relevant educational tool. Efforts to preserve local wisdom can be done by introducing local wisdom values to students, especially for junior high school students as a foundation for shaping student character (Foa, et al, 2024). Local wisdom-based learning has great potential to increase students' learning motivation. The concept of local wisdom-based learning is to link learning with local/regional wealth in the form of knowledge, insights, customs, culture that is inherited and maintained as an identity (Foa, et al, 2024).

The integration of local wisdom in science subjects can provide a more holistic insight into natural phenomena and increase students' awareness of the importance of maintaining the ecosystem. Local wisdom-based learning not only integrates science, but also cultural values and traditions that exist in society. In science learning, it is necessary to create an atmosphere that is directly related to students' experiences so that students can be more active in the learning process. By integrating local wisdom, science materials can be presented in a context that is closer to the geographical conditions and local culture, especially in the Banjar region.

The local wisdom-based approach is not new in the world of education, even many subjects have integrated local wisdom in it. Local wisdom in science subjects aims to improve the quality of education in a way that is more relevant and interactive for the local community. However, the implementation of local wisdom-based learning in science subjects in formal schools is still relatively new and requires careful evaluation to determine its impact on the learning process. The problem is the lack of studies that explore how the application of local wisdom can influence students' interest, understanding and motivation in learning science.

This study aims to explore how students respond to learning methods that link science materials with local wisdom. This research focuses on the response of Muhammadiyah 3 Banjarmasin Junior High School students to local wisdom-based learning in science subjects. This research is expected to provide an overview of the effectiveness of the approach and its contribution to increasing students' motivation and understanding in learning science. This research is expected to make a positive contribution in the field of education, especially the integration of local wisdom in science subjects.

2 Methods

This research uses a quantitative approach with survey method. This approach makes it easier to identify students' perceptions more clearly, so that the data obtained can be used to analyze students' tendencies towards local wisdom-based science learning. The survey method was chosen because it allows data collection from a large number of respondents in a relatively short time. The instrument used is a closed questionnaire and is distributed directly in the class of students under study. Questionnaires that have been filled in will be collected back. The questionnaire has 20 questions with a scale from 1-4 which is scored based on the criteria "strongly disagree to strongly agree". The scoring rules can be seen in **Table 1**.

Data collection was conducted on Wednesday, October 16, 2024 in grade 7 of Muhammadiyah 3 Banjarmasin Junior High School. The number of research subjects was 41 students from grade 7 of Muhammadiyah 3 Junior High School Banjarmasin. The data obtained from the questionnaire were analyzed descriptively by calculating the percentage of answers in each category (strongly disagree to strongly agree). Using a 4-point scale for 20 statements, the total possible score ranges from 20 to 80. The score categories can be seen in **Table 2**. A picture of the activities during data collection can be seen in **Figure 1**.

Table 1 Scoring rules

Score	Categories
1	Strongly Disagree
2	Disagree
3	Agree
4	Strongly Agree

Table 2 Student response rate criteria

Score	Responses rate
20-35	Very Low
36-50	Low
51-65	High
66-80	Very High



Figure 1: Data collection

3 Results

Local wisdom is a cultural characteristic of a region or an idea that includes how to interact with other humans, humans and their environment, and humans with their belief system (Endayani, 2023). The integration of cultural values and national character is very important in the learning curriculum, so that students can understand the concept of culture in their area. Science learning based on local wisdom is learning that unites schools with the culture that exists in the community. The learning process through local wisdom will make students more familiar with their own local culture and foster an attitude of environmental care (Sumarni, 2024).

The results of this study show that the integration of local wisdom in science learning received a positive response from students of Muhammadiyah 3 Banjarmasin Junior High School, with a significant increase in their interest and motivation to learn. Students felt more connected to the material being taught. It increases students' interest and motivation, enhances students' creativity, and provides additional insights into the environment and local culture. Questionnaires identified that students were more active and participated and showed better understanding compared to conventional learning methods.

A total of 73.17% of 41 students agreed that local wisdom-based science learning makes them more interested and encourages interest in protecting the environment. This finding is consistent with the literature which shows that learning approaches that are relevant to local culture can improve

students' understanding and learning outcomes. In the implementation of local wisdom-based learning, students are focused on understanding the concepts and principles of science so as to improve student understanding (Putri et al, 2023). The implementation of local wisdom-based learning is also able to increase student interest and motivation through linkages with local culture (Amaliyah, 2023).

The study by Shufa dan Adji (2024) supports this result by stating that the integration of local culture in learning can encourage the development of creative, critical and innovative thinking that is relevant to students through the local context. Furthermore, as many as 51.22% of students felt that the application of local wisdom helped them in remembering science materials, in accordance with previous findings showing that local experience-based learning facilitates the recall of scientific concepts (Laksana, et al., 2019).

In addition, as many as 85.37% of students stated that this approach added to their insight into the environment and local culture. These results are reinforced by a study from Putri et al. (2023), which showed that local wisdom-based learning can increase students' awareness of the surrounding environment and conserve the wisdom values that exist around them. In the Banjarmasin area, which is rich in cultural diversity and natural resources, this approach can provide a concrete context, deepen students' scientific understanding, and strengthen their environmental awareness.

Overall, this study supports the integration of local wisdom in science learning to strengthen students' interest and understanding of science and increase their connection to the environment. The importance of local wisdom in education lies not only in cultural recognition, but also in developing students' positive attitudes towards the environment. With this approach, students not only understand scientific concepts, but also gain a deeper appreciation of local culture as well as the drive to protect their environment (Foa, et al, 2024).

4 Conclusion

The integration of local wisdom in science subjects can provide a more holistic insight into natural phenomena with a context that is closer to local geographical and cultural conditions. The results showed that students responded positively to local wisdom-based science learning. As many as 73.17% of 41 students agreed that local wisdom-based science learning makes them more interested and encourages interest in protecting the environment. Furthermore, 51.22% of students felt that the application of local wisdom helped them in remembering science materials. In addition, 85.37% of students stated that this approach broadened their knowledge about the environment and local culture. Overall, the results of this study indicate that local wisdom-based learning not only improves students' understanding of science learning concepts, but also strengthens environmental awareness.

5 References

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