Positive Impact of the Local Wisdom Module on the Canang Kayu Musical Instrument: Building the Character of Love for the Homeland

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Article Info

ABSTRACT

Purpose of the study: The aim of this research is to determine the effect of using local wisdom-based modules on students' character of love for their homeland.

Methodology: This research adopts a quantitative methodological approach with a quasi-experimental type. This research uses junior high school students who study vibrations, waves and sound as research samples. This study applied two main data collection techniques, namely a love of the country character questionnaire and a response questionnaire. student. Meanwhile, the data analysis technique used in this research is by conducting assumption tests and simple linear regression tests.

Main Findings: Based on the results of the data analysis carried out, it was found that there was an influence of the use of local wisdom modules on the character of love for the country, namely an RSquare value of 0.616, which means that 61.6% of the local wisdom modules had an effect on the character of love for the country. There is an influence of the local wisdom module on the character of patriotism, this can be seen from the significance value < 0.05. The significance value obtained is 0.009.

Novelty/Originality of this study: The novelty of this research lies in a holistic approach that combines elements of music, culture and the environment in order to build students' character of love for their homeland through a physics learning module based on local wisdom of the Canang Kayu musical instrument. The findings of this research are a physics teaching strategy that is oriented towards ethnophysics.

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1. INTRODUCTION

Education is an important part of student success. Education as a systematic, planned and sustainable effort is certainly an optimal effort to achieve educational goals [1]-[3]. In education, of course, good quality is needed to achieve this goal, namely students become intelligent and can carry out well [4]-[6]. Based on this understanding, education can be interpreted as a place or forum for learning [7]-[9]. Teachers must convey what they have learned with the help of media or educational materials that are easy to understand and interesing in such a way as to attract students' attention, especially to physics learning.

Physics learning is an activity in the form of information, ideas and concepts about the natural environment which is obtained, one of which is from the local wisdom values of wooden canang musical instruments and experiences gained during the scientific process. The aim of learning physics is not only to understand physics concepts, but also to develop students' thinking skills which are useful for solving various problems in everyday life [10]-[12]. Therefore, good learning is student-centered learning and encourages students to be actively involved in the learning process so that learning can take place effectively [13]-[15].

Teaching and learning activities are the main function of the entire educational process. This means that achieving educational goals really depends on how the teaching and learning process is designed and implemented professionally [16]-[18]. There are always two active participants in every lesson, namely the teacher and students [19]-[21]. Teachers as educators consciously, systematically and continuously create planned learning conditions for students [22]-[24]. At the same time, students are the parties who enjoy the learning conditions created by the teacher [25]-[27]. In the learning process, learning materials or supporting materials must be used when delivering the material.

Teaching materials consist of types of printed teaching materials and non-printed teaching materials that can be used to convey material in the learning process. Many teachers still use methods that are less interesting, causing students to feel bored [28]-[30]. This can be seen from interviews with several teachers. The trainer explained that teachers still often use the lecture method, so there are still many students who have difficulty understanding the material, and there are still many students who don't pay attention and are busy chatting with friends [31]-[33]. Apart from that, students are bored with the media tools used in the learning process, this is because teachers do not make optimal use of media and learning opportunities such as clips, textbooks, etc.

Apart from that, the current problem is the lack of local wisdom values that have developed in society as one of the impacts of globalization. Having a view of life based on local wisdom is actually important because the basic cultural values contained in local wisdom are the characteristics of society, so they can be used as material for learning exploration for healing purposes quality of learning [34]-[36]. So that learning does not only understand the material theoretically, but can develop based on the community's living environment [37]-[39]. Science learning will be more effective if it is carried out in collaboration with local culture, where the collaboration of both will have a positive effect in improving learning and preserving local culture [40]-[42]. This not only improves learning, but indirectly students become aware of local culture and help preserve the surrounding culture.

To overcome this problem, the author wants to develop a learning environment that is related to culture. This happens because the learning environment is a mediator or transmitter of messages used in the learning process. Based on student needs, local wisdom-based modules are used as learning materials. Modules can be defined as learning materials that are printed, structured, developed according to needs, studied without continuous guidance and studied independently. By developing this learning module, it is hoped that students will be interested in using this module as learning material used in the learning process.

Previous research that aligns with the current study found that the implementation of problem-based learning with local wisdom oriented towards socio-scientific issues significantly impacts students' conceptual knowledge and environmental literacy [43]. Subsequent research found that learning based on local wisdom can enhance student learning outcomes [44]. The key difference is that the earlier research focused on the subject of biology. Research conducted by Hidayanto [45] stated that the development of a Physics module based on local wisdom can enable students to optimize their character as students. So from several previous studies it can be concluded that developing modules based on local wisdom can increase students' interest in learning, improve learning outcomes and can shape or optimize students' character. The difference between some of these studies lies in their application, where previous researchers applied them to different materials and at different levels.

In an era of education that continues to develop, the latest research highlights the advantages of using learning modules based on local wisdom on vibration, wave and sound material, especially involving traditional Indonesian musical instruments, namely the wooden canang. This discovery not only involves aspects of conventional learning, but also offers a deeper understanding of the richness of local culture. This article explores the positive impact of this innovative learning module, especially in forming the character of patriotism through the use of wooden canang musical instruments which have symbolic and historical value in Indonesian musical traditions. Thus, this research is a step forward in efforts to improve the quality of education that not only provides knowledge, but also respects and enriches the nation's cultural identity.

The importance of understanding and applying local wisdom in education is revealed through research regarding the positive impact of learning modules on wooden canang musical instruments. Local wisdom is not only an additional aspect in the curriculum, but an urgent need to build the character of love for the country in the next generation. The wooden canang musical instrument, as a representation of Indonesia's rich culture, is not only an object of learning, but also a guardian of the nation's heritage and identity. By incorporating local wisdom values into the study of vibrations, waves and sounds, we not only produce a deeper understanding of science, but also create a strong emotional connection with our cultural roots. Therefore, this article strengthens the urgency of the need for a holistic and local wisdom-based educational approach in shaping children's character as those who

love their country, making them agents of change who are responsible for the cultural inheritance and sustainability of the nation. Based on the background above, the aim of this research is to determine the effect of using local wisdom-based modules on the character of patriotism.

2. RESEARCH METHOD

2.1 Types of research

This research adopts a quantitative methodological approach with a quasi-experimental type to investigate the positive impact of local wisdom-based learning modules on wooden canang musical instruments on the formation of the character of love for the country [46]-[48]. Through a quasi-experimental design, this research allows researchers to control several variables that might influence the results, while still maintaining the natural characteristics of the learning environment. The experimental and control groups were carefully selected to ensure similar baseline characteristics, so that observed differences could be directly attributed to the learning module intervention..

2.2 Population and Sample

The population in this study were junior high school students who studied vibration, wave and sound material at the Gunung Meriah 3 State Junior High School. By paying attention to representative coverage, this population includes students from various backgrounds and levels of ability. This research sample was selected using a purposive sampling method, used by researchers because they wanted to select a sample that had special characteristics that could answer the research problem [49]-[51]. The class taught using learning modules based on local wisdom on wooden canang musical instruments became the experimental group, namely class A, while the control group consisted of classes that received conventional learning, namely class B.

2.3 Data collection technique

To systematically dig up information, this research used two main data collection techniques, namely a love of the country character questionnaire and a student response questionnaire. First, a questionnaire sheet for the character of love for the homeland as an instrument for assessing the character of love for the homeland that is desired in the learning context using a module based on local wisdom on the wooden canang musical instrument. Respondents were asked to evaluate themselves regarding changes in character along with their participation in learning. Next, a student response questionnaire was designed to collect students' direct views about their experiences with the learning module. The questions in this questionnaire cover various aspects, from understanding the material to appreciating integrated local wisdom elements. The Likert assessment scale consists of 4 Likert scales which are used to obtain students' level of agreement or disagreement with the proposed statement. This combination of instruments is expected to provide comprehensive data on the impact of learning modules on students' Love of the Homeland and offer in-depth insight into their responses to the teaching methods used. The grid of the Love of the Homeland student character questionnaire can be seen in Table 1 below:

Table 1. Love of the Homeland Character Questionnaire Grid

No.	Grille	No. Statement
1.	Self-Evaluation Related to Awareness of Patriotic Values	1,2,3,4,5
2.	Changes in Attitudes and Behavior Towards Local Culture	6,7,8,9
3.	A Deeper Understanding of the History and Meaning of Canang Kayu	10,11,12,13
4.	The Relationship Between Learning and National Identity	14,15,16,17,18
	Amount	18

Next, the grid for the student response questionnaire regarding learning using the module is presented in table 2 below:

Table 2. Student Response Questionnaire Grid for the Local Wisdom Module

No.	Grille	No. Statement
1.	Understanding Learning Material	1,2,3,4,5
2.	Clarity and Readability of Learning Modules	6,7,8
3.	Appreciation of Integrated Local Wisdom	9,10,11,12
4.	Interactive Experiences and Student Engagement	13,14,15,16,17
5.	Suggestions and Criticism for Improving Learning	18,19,20
	Amount	20

2.4 Data analysis technique

In the data analysis process, this research carried out a series of assumption tests to validate the data and ensure suitability for the analysis method used. First, a normality test was carried out to evaluate the extent to

which the collected data followed a normal distribution . The results of this normality test provide an idea of whether the data has a symmetrical distribution, allowing researchers to select and apply statistical techniques that suit the distribution characteristics of the data. Next, a linearity test was carried out to evaluate the extent to which the relationship between the independent variable and the dependent variable can be explained by a simple linear regression model. This test is important in the context of this research because it measures the consistency and sustainability of the linear relationship between these variables. This is necessary so that the results of hypothesis testing are more reliable and generalizations can be made more precisely.

After ensuring that the data meets the basic assumptions, this research continues to the hypothesis testing stage by applying a simple linear regression test. This test is used to evaluate whether there is a linear relationship between the independent variable (participation in learning using local wisdom-based modules on wooden canang musical instruments) and the dependent variable (formation of the character of love for the country). By interpreting the results of a simple linear regression test, this research can provide a deeper understanding of the extent of the influence of the independent variable on the dependent variable, providing a basis for making conclusions and implications of the findings of this research for the learning context and student character formation.

2.5   Research procedure

The research process began with identifying the student population in two classes, namely class A as the experimental group who received learning with modules, and class B as the control group who received conventional learning. The sample selection process used a purposive sampling method by taking into account the cultural diversity and background of students at the school. The data collection instrument consists of a love of the country character questionnaire sheet and a student response questionnaire, each consisting of 18 statements and 25 statements. The patriotism character questionnaire sheet is used to measure changes in students' characteristics and patriotism values before and after learning. Meanwhile, the student response questionnaire was designed to obtain students' views on their experiences in learning with the module.

Furthermore, local wisdom-based learning modules were applied to the experimental group, while the control group received conventional learning. The data collection process was carried out by distributing questionnaire sheets before and after the learning period, as well as conducting direct observations of student interactions with the module and the wooden canang musical instrument. In data analysis, this research carried out assumption tests, including a normality test to ensure data distribution, and a linearity test to evaluate the uniformity of variance between groups. After ensuring that the data met basic assumptions, a simple linear regression test was carried out to evaluate the relationship between participation in learning using the module and the formation of students' character of patriotism.

3.   RESULTS AND DISCUSSION

The results of descriptive statistical tests on the character of love for one's country can be seen in the table below:

Table 3. Descriptive Statistical Test Results for the Character of Love for the Motherland

Variable	Interval	F	%	Category	Mean	Median	Min	Max
Character of Love for the Motherland	18.00 – 31.75	0	0.0	Very Not Good				
	31.76 –45.50	0	0.0	Not good	73.23	63.50	49.00	72.87
	45.51 – 59.25	19	63.3	Good				
	59.26 – 73.00	11	36.6	Very Good				

Based on descriptive statistics regarding the character of love for the country, it was found that the character of love for the country was in the very good category with a percentage of 36.6% for 11 people. Apart from that, there were also 19 people in the good category with a percentage of 63.3%. So it can be concluded that the character of love for one's country is dominant in the good category with a percentage of 63.3%.Furthermore, the results of descriptive statistical tests on student responses to the use of local wisdom-based modules can be seen in the table below:

Table 4. Descriptive Statistical Test Results Student responses to the use of local wisdom-based modules

Variable	Interval	F	%	Category	Mean	Median	Min	Max
Student Response	20.00 – 35.25	0	0.0	Very Not Good				
	35.26 – 50.5	0	0.0	Not good	73.23	63.50	49.00	72.87
	50.6 – 65.75	13	43.3	Good				
	65.76 – 81.00	17	56.6	Very Good				

Based on descriptive statistics regarding student responses to the use of local wisdom-based modules, it was found that student responses were in the very good category with a percentage of 56.6% as many as 17 people. Apart from that, there were also 13 people in the good category with a percentage of 43.3%. So it can be concluded that students' use of local wisdom-based modules is dominant in the very good category with a percentage of 56.6%.

Based on the results of data analysis carried out by research in the form of assumption tests consisting of normality tests and linearity tests. The results of the data normality test used in this research are as follows:

Table 5. Normality Test Results

Variable	Sig.	Distribute
Character of Love for the Motherland	.200	Normal
Student Response	.200	Normal

Based on the results of the normality test of the data used in this research, it was found that the data had a normal distribution because the Sig. > 0.05, which is 0.200.

The results of the data linearity test used in this research are as follows:

Table 6. Linearity Test Results

Variable	Sig.	Distribute
Characters of Love for the Motherland*Student Responses	0.159	Linear

Based on the results of the linearity test of the data used in this research, the Sig value was obtained. > 0.05, which is 0.159, so it can be concluded that the data is linearly distributed.

Next, a simple linear regression test was carried out to see whether there was an impact of using local wisdom-based modules on the character of patriotism. The results of the simple linear regression test carried out can be seen in the table below:

Table 7. Simple Linear Regression Test Results

Variable	R	R Square	Sig.
Local Wisdom Module*Character of Love for the Motherland	0.784	0.616	0.009

Based on the test results above, a decision can be made that there is an influence of the use of local wisdom modules on the character of love for the country, namely an R Square value of 0.616, which means 61.6% of the local wisdom modules have an effect on the character of love for the country. Based on the test results above, a decision can be made that there is an influence of the local wisdom module on the character of patriotism, this can be seen from the significance value < 0.05. The significance value obtained is 0.009.

Physics modules based on local wisdom provide a contextual and culturally relevant approach to learning [52], [53]. By incorporating local values, language, and practical applications in everyday life, these modules aim to strengthen the understanding of physics concepts while enhancing the connection between the subject matter and students' life experiences. The use of local language and the integration of local values not only facilitate comprehension but also increase students' interest and motivation to learn. These modules go beyond focusing solely on physics concepts; they can also develop local skills in alignment with indigenous wisdom, creating a meaningful learning experience that positively impacts students' understanding and engagement in physics education [54]-[56].

The use of local wisdom modules on the Canang Kayu musical instrument can have a positive impact in building the character of love for the country. First of all, local wisdom modules can be an effective educational tool for introducing and maintaining Indonesian cultural traditions. Through the Canang Kayu musical instrument, the younger generation can understand the noble values and cultural heritage contained in every element of its manufacture. This not only enriches their knowledge about traditional musical arts, but also builds a sense of pride in Indonesia's cultural heritage.

Furthermore, the Canang Kayu musical instrument which uses local wisdom modules can make a positive contribution to environmental preservation. The materials used to make this musical instrument usually come from local natural resources that are sustainable and environmentally friendly. By utilizing materials such as responsibly sourced local wood, the manufacture of these musical instruments not only supports local industry, but also helps preserve the surrounding forests and ecosystems. This creates environmental awareness and builds the character of patriotism which is closely related to the balance of nature. Lastly, the local wisdom module on the Canang Kayu musical instrument can be a medium to strengthen the sense of solidarity and togetherness in society. The process of making these musical instruments often involves collaboration between local communities, building strong social ties. Through joint activities like this, people can feel together in preserving their cultural heritage.

This not only strengthens individual character, but also builds a strong social foundation in forming sustainable love for the country .

Previous research found that it is necessary to integrate physics learning with local wisdom [57]. Subsequent research found that integrating local wisdom in learning will build students' awareness of their circumstances and environment [58]. In line with previous research, this research was conducted to see the effectiveness of using physics learning modules based on local wisdom to build students' character of love for their homeland. This research is in line with research conducted by Rumiati et al. [59] this research provides an illustration that in the traditional game of Stilts there is a physical concept of mechanical energy which can connect modern science with ethnoscience. The difference between this research and research conducted by Rumiati et al. lies in the local wisdom used. Apart from that, the difference lies in the learning tools used.

This research presents a new approach in exploring the positive impact of implementing local wisdom modules on the Canang Kayu musical instrument as a means of building the character of love for the country. In developing this research, we did not only examine musical or cultural aspects alone, but also paid attention to wider implications, especially in the context of community character development. A deep understanding of the local wisdom values contained in the process of making and using musical instruments is the main basis for exploration, and the research findings are expected to provide new insights regarding real contributions in building the character of love for one's country amidst the complexity of cultural and environmental dynamics today. This. By focusing on traditional musical instruments that may be considered ancient, this research provides a fresh and relevant perspective on cultural and environmental sustainability, and encourages positive changes in people's thinking regarding the importance of maintaining local identity.

The local wisdom module on the Canang Kayu musical instrument can increase the character of patriotism for several reasons. One of them is because the module integrates deep cultural and traditional values into the making of musical instruments, creating a medium that combines art with local wisdom. Through a manufacturing process that involves traditional values, individuals involved in making these musical instruments are indirectly involved in preserving and respecting their local cultural heritage. This provides a strong foundation for the development of the character of love for the country. Despite providing valuable insights into the influence of local wisdom modules on students' love for the country and patriotism, this research has certain limitations. The limited sample size and specific research locations may impact the generalization of research findings. Additionally, external factors such as family experiences and social environments may not be entirely controlled. Subjective character measurements and the time constraints of the study can also affect the validity and reliability of the results. To achieve a deeper understanding, further research with a larger sample size and control over additional variables may be necessary. Understanding these limitations is crucial for interpreting the research findings and providing a foundation for future studies.

4. CONCLUSION

Based on the data analysis carried out, it was found that there was an influence of the local wisdom module on the character of patriotism, this can be seen from the significance value <0.05. The significance value obtained is 0.009. Awareness of the uniqueness of local culture which is manifested in this musical instrument can be a catalyst for building a character of love for the country that is firmly rooted in togetherness and active involvement in preserving cultural values. The researcher's recommendation for further research is that research can be carried out to expand or deepen the local wisdom module used in this research. This could include further investigation into the specific aspects of local wisdom that contribute to the character of patriotism.

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