



Optimizing Elementary School Education through the Implementation of Karawitan-Based Learning Grounded in Local Wisdom

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ABSTRACT

Purpose of the study: This research aims to identify the optimization of the implementation of learning based on local musical wisdom in arts and culture music material subjects in elementary schools.

Methodology: This research uses a classroom action research approach as the main method. The research subjects in this context are fifth grade elementary school students who are involved in learning based on Karawitan Local Wisdom. The data collection technique in this research uses a questionnaire to measure responses and observation sheets to measure student learning activity. The data analysis technique uses descriptive statistics and the independent sample t-test.

Main Findings: The research results show that the implementation of Karawitan Local Wisdom-based learning at the Sendangsari Village Elementary School, through a project-based and open approach, has had a significant positive impact on students' responses and their activeness in the learning process. There is a real increase in students' interest, understanding and appreciation of the learning material, along with more intensive student participation.

Novelty/Originality of this study: The novelty of the results of this research lies in the implementation of a Karawitan Local Wisdom-based learning model at the elementary school level, which concretely depicts significant changes in students' responses and their activeness during the learning process.

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1. INTRODUCTION

Basic education is the main foundation in forming the character and basic skills of students. As the initial stage of formal education, basic education plays a crucial role in equipping students with essential knowledge and skills to face future challenges [1]-[3]. Therefore, continuing to apply innovative learning methods in elementary schools is a must so that the educational process can have maximum positive impact [4]-[6].

Local wisdom is cultural wealth passed down from generation to generation. In the context of education, integrating local wisdom values is an important step to maintain children's cultural identity while strengthening national identity [7]-[9]. Aligning local wisdom with the education curriculum in elementary schools can shape children's character in accordance with the cultural values inherent in society [10]-[12]. One form of local wisdom that is rich in traditional values is the art of Karawitan music. Karawitan, as part of Indonesia's local wisdom, not only has high aesthetic value but also reflects the cultural diversity and uniqueness

of each region. Integrating Karawitan-based learning in elementary schools can be a real form of preserving and developing local wisdom, as well as enriching students' learning experiences.

Sendangsari Village offers a rich and deep panorama of local wisdom, especially in the context of Karawitan Local Wisdom. This village is not only the holder of the Karawitan musical art tradition, but also a cultural crater that preserves it authentically. Karawitan in Sendangsari Village is not just a performing art, but a living heritage that is guarded and preserved by the local community. Traditional music craftsmen, busking teachers and art groups have made Sendangsari Village a center for Karawitan activities that are rooted in local values and provide a distinctive color to everyday life. In this context, research on the implementation of Karawitan Local Wisdom-based learning in Sendangsari Village is not only academically relevant, but also a real contribution to the preservation and development of Indonesia's cultural heritage at the local level.

Primary school education faces complex challenges at the international, regional and Indonesian levels [13]-[15]. Globally, basic education trends reflect innovation, quality standards and global competition in producing superior human resources [16]-[18]. At the regional level, collaboration between countries is key in improving the quality of education through the exchange of experiences and the best strategies [19]-[21]. In Indonesia, the dynamics of basic education include factors such as resources, curriculum and qualifications of teaching staff [22]-[24]. An assessment of the state of basic education in Indonesia must take into account the government's efforts to meet international standards, strengthen regional collaboration, and adapt the best strategies to the local context [25]-[27]. By understanding and analyzing this situation, implementing Karawitan Local Wisdom-based learning in elementary schools can be the right response, aligning Indonesian basic education with global and regional developments, while still strengthening local wisdom to maintain the nation's uniqueness and identity.

In line with previous research which highlights that Minangkabau traditional proverbs contain inter-cultural values that contribute to the formation of people's self-identity, characterized by moral commitment, an open mindset and honesty [28]. Then, in line with previous research, it was found that indigenous students continued to show poor performance when taught using Western Science. The bright point is that when indigenous students are taught Western Science, Ethno Science/Indigenous Wisdom is the link between these two knowledge systems [29]. The results of this previous research are an innovation for education in Indonesia based on local wisdom in learning. Apart from making learning more meaningful, learning based on local wisdom also makes the nation's children more aware of the richness of their culture and the means of preserving the nation's culture.

The uniqueness of this research lies in the implementation of Karawitan Local Wisdom-based learning in elementary schools. This approach not only contributes to curriculum development, but also opens up new space for exploration and appreciation of the richness of local culture through traditional musical arts. The implementation of Karawitan Local Wisdom-based learning in elementary schools has the potential to have a positive impact on building student character, increasing interest in learning, and preserving local wisdom. This implication is not only local, but can also strengthen national identity in the global arena.

Research regarding the implementation of Karawitan Local Wisdom-based learning in Sendangsari Village has significant urgency in strengthening the preservation and development of Indonesia's cultural heritage. This village is a symbol of local wisdom, especially in the art of Karawitan music, which is not only a performing art but also a living heritage that is guarded by the local community. This research aims to deepen understanding of Karawitan local wisdom, with the main aim of identifying potential learning implementations that can enrich the education curriculum in Sendangsari Village. Through this research, it is hoped that learning strategies can be developed that not only strengthen local cultural identity but also maintain traditional wisdom so that it remains relevant and passed on to future generations, while ensuring continuity in facing ever-growing global dynamics. This research aims to identify the optimization of the implementation of learning based on local musical wisdom in arts and culture music material subjects in elementary schools.

2. RESEARCH METHOD

This research uses a classroom action research approach as the main method. Classroom Action Research serves as a valuable tool for teachers to enhance their teaching strategies, contribute to professional growth, and ultimately improve the learning experiences of their students [30]-[32]. This research uses a type of classroom action research to explore and improve students' responses to Karawitan Local Wisdom-based learning in elementary schools, as well as observing the level of student activity in the learning process. The research variables consist of two main aspects: first, students' responses to Karawitan Local Wisdom-based learning, which includes aspects of interest, understanding and appreciation of the learning material; second, student activity in the learning process, which involves student participation, involvement and contribution in learning activities based on Karawitan Local Wisdom.

The research subjects in this context are fifth grade elementary school students who are involved in Karawitan Local Wisdom-based learning in Sendangsari Village. The instrument used to measure students'

responses to Karawitan Local Wisdom-based learning involves a structured questionnaire that covers aspects of interest, understanding and appreciation of arts and culture learning material, namely music. In addition, the instrument for measuring student activity involves observing student participation, involvement in discussions, and student contributions to learning activities. Data collection was carried out through several techniques, including classroom observations to observe the level of student participation and distribution of questionnaires to quantitatively measure student responses.

The grid for the student activity observation sheet instrument and the student response questionnaire for local wisdom-based learning, namely musical arts, music material for arts and culture subjects in the fifth grade of elementary school is presented in table 1.

Table 1. Instruments for student learning activity observation sheets and student response questionnaires

Activity observation sheet	Number of Items	Response questionnaire	Number of Items
Participation	4	Interest	6
Involvement	4	Understanding	5
Contribution	4	Appreciation	4
Total	12	Total	15

The Likert scale for this research instrument uses a Likert scale of 4. The categories for the learning activity observation sheet and student response questionnaire are as follows:

Table 2. Instrument categories for student learning activity observation sheets and student response questionnaires

Category	Intervals	
	Activity observation sheet	response questionnaire
Very not good	12 – 21	15.00 – 26.25
Not good	22 – 30	26.26 – 37.50
Good	31 – 39	37.51 – 48.75
Very good	40 – 48	48.76 – 60.00

Quantitative data analysis in this research uses SPSS descriptive statistics. Descriptive statistics are used to determine the frequency, percentage, average value, mode, median, min and maximum values [33]-[35]. Data analysis continues with hypothesis testing in the form of a t test with the condition that the data is normally distributed and homogeneous. The procedure for this research is presented in table 3 below:

Table 3. Research procedures

Preliminary Planning	Identifying problems, formulating objectives, and designing the implementation of Karawitan Local Wisdom-based learning.
First Cycle (Planning)	Learning design, instrument development, and initial implementation in the classroom
First Cycle (Implementation)	Data collection through observation and questionnaires
First Cycle (Evaluation)	Analyze data and reflect on results to design improvements
Next Cycle	Iterate the planning, implementation and evaluation cycle for each subsequent research stage to achieve optimization of Karawitan Local Wisdom-based learning
Final Data Analysis and Conclusion	Thorough quantitative data analysis, drawing conclusions, and drawing implications for further development.

3. RESULTS AND DISCUSSION

This research was conducted using a classroom action research approach. The results in the first cycle were carried out in the design stage, namely using a conventional learning model. Followed by the implementation stage, namely the teacher becomes a facilitator where the learning process is centered on the teacher with media and learning resources in the form of books. Furthermore, observations were made from the results of the observations made to find that students' activeness and response when learning were still categorized as low. The results obtained in the first cycle based on descriptive statistics that have been analyzed are presented in table 4.

Table 4. Descriptive statistical results of student activity and responses in the first cycle of arts and culture subjects

Variables	Category	Interval	freq	%	Mean	Med	Min	Max
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Activeness	Not very good	12 – 21	0	0	29.00	30	23.00	39.00
	Not good	22 – 30	17	56.7				
	Good	31 – 39	13	43.3				
	Very good	40 – 48	0	0				
Response	Not very good	15 – 26.25	0	0	27.22	37	27.00	48.00
	Not good	26.26 – 37.50	15	50				
	Good	37.51 – 48.75	15	50				
	Very good	48.76 – 60.0	0	0				

Based on table 4, it was found that the dominant learning activity of students who were categorized as not good was 17 students and those who were categorized as good were 13 students with an average student activity score of 29.00 in this first cycle. Students still had responses in the balanced category for not good and good. arts and culture subjects, music material, namely 50%. So it must be continued in the second cycle.

Based on the classroom action research model used, the second cycle begins with the redesign stage, here the researcher designs learning models and learning tools by considering efforts to increase student activity and response. Learning in cycle 2 uses a project-based learning model, the learning media is in the form of musical instruments, namely musical instruments, namely learning is carried out in an open room. By forming small groups, students are directed and guided to learn about traditional Indonesian musical instruments related to arts and culture music material subjects. Then, from the information obtained, students are assigned to carry out group project assignments to play musical instruments and regional song melodies. In the next stage, namely observation, students' activity and response increased. The results of the analysis used are descriptive statistics which are presented in table 5.

Table 5. Descriptive statistical results of student activity and responses in the second cycle of arts and culture subjects

Variable	Category	Interval	freq	%	Mean	Med	Min	Max
Activeness	Not very good	12 – 21	0	0	38.00	37	23.00	47.00
	Not good	22 – 30	4	13.3				
	Good	31 – 39	20	66.7				
	Very good	40 – 48	6	20				
Response	Not very good	15 – 26.25	0	0	45.75	47.80	37.00	60.00
	Not good	26.26 – 37.50	3	10				
	Good	37.51 – 48.75	22	73.3				
	Very good	48.76 – 60.0	5	16.7				

Based on table 5, it was found that the dominant student learning activity was categorized as good with a percentage of 66.7% and the average student activity score was 38.00. Then in this second cycle students had a response to learning arts and culture music material based on local wisdom, namely musical instruments were dominant in the good category with a percentage of 73.3%. So the research can be stopped in the second cycle. Then a prerequisite test analysis is carried out before carrying out the t test.

Table 5. Prerequisite test results for normality and homogeneity tests

Prerequisite Test	Variable	Sig.	Information
Normality	Activeness	.200	Normal
Homogeneity		.220	Homogeneous

Based on the prerequisite tests that have been carried out, it is found that the data is normally distributed and homogeneous as indicated by the sig value. $0.200 > 0.05$ and $0.210 > 0.05$. After the t test requirements are met, you can proceed to the independent sample t-test and the test results are presented in the following table 6.

Table 6. Results of the independent sample t-test of students' digital literacy

Variable	Gender	N	Sig, (2-tailed)
Activeness	Man	12	0.045
	Woman	18	

Based on analysis using the independent sample t-test, the Sig value was obtained. (2-tailed) namely $0.045 < 0.05$ in the student learning activity variable based on student gender, meaning there is a significant difference.

The results of the research show that there is a positive impact on students' responses and their activeness in learning based on Karawitan Local Wisdom at the Sendangsari Village Elementary School. Based on quantitative data analysis from the questionnaire, the majority of students showed increased interest, understanding and appreciation of the learning material. This reflects the accommodation of learning methods that combine the art of Karawitan music with the local context, which is able to motivate students to be more involved in learning.

In terms of student activity, classroom observations indicated that students were more proactive in taking part in discussions, participating in group activities, and showing greater interest in learning. This confirms that Karawitan Local Wisdom-based learning not only creates an inclusive space, but also stimulates more intensive social interaction and student involvement. The results of the independent sample t-test analysis show significant differences in students' learning activity based on gender. This highlights the potential for differences in preferences or responses to Karawitan Local Wisdom-based learning methods between male and female students. These findings provide important insights for the development of learning strategies that are more inclusive and oriented to the needs of diverse students.

The integration of culture in elementary school education plays a crucial role in shaping meaningful learning experiences for students. Through the appreciation of cultural heritage, students can construct their identity and develop pride in their origins. Learning that incorporates local culture also helps students understand their connection to the surrounding environment, promoting environmental awareness and social responsibility [36]-[38]. Intercultural skills become essential as students interact with diverse cultural backgrounds, stimulating creativity and providing opportunities for innovative problem-solving [39]-[41]. The integration of culture enriches learning with the wealth of knowledge, traditions, arts, and unique practices, making education more engaging and relevant [42]-[44]. Furthermore, culturally inclusive learning can enhance student engagement, motivating them to actively participate due to the material's relevance to their daily lives [45]-[47]. Beyond mere instruction, cultural integration in elementary schools contributes to preserving and safeguarding the cultural richness integral to a society [48]-[50]. Thus, cultural integration not only stimulates students' personal growth but also establishes a foundation for globally knowledgeable and empathetic citizens [51]-[53].

Based on the results of previous research, it is known that there are three patterns or forms of disaster mitigation based on traditional knowledge, namely belief, knowledge and engineering technology, while the disaster learning process uses a dual learning method that is integrated into each subject [54]. As a form of continuation of previous research, this research takes steps to make learning in elementary schools based on local wisdom. In this research, local wisdom-based learning is applied to arts and culture music material subjects with local wisdom, namely karawitan. This aims to build student activity and also make students aware of traditional music and a means to encourage students to preserve regional music.

Traditional Karawitan music, typical of Java, Indonesia, distinguishes itself from traditional music in the Philippines and Korea. Karawitan, featuring gamelan, kendang, and suling, highlights melodies, rhythms, and vocals in Javanese cultural art. The Philippines has Kundiman, romantic music with guitars, often addressing themes of love [55]. In Korea, Gugak or Jeongak showcases a variety of instrumental and vocal music, using traditional instruments such as gayageum and daegeum. Each traditional music reflects the richness of cultural and unique history, making Karawitan, Kundiman, and Gugak each distinctive.

The novelty of the results of this research lies in the implementation of a Karawitan Local Wisdom-based learning model at the elementary school level, which concretely depicts significant changes in students' responses and their activeness during the learning process. In the first cycle, using a conventional learning model, it was seen that students' responses to the learning material and their active learning were still relatively low. However, with the adoption of the project-based learning model in the second cycle, there was a significant increase in student responses and their activeness. Learning involving Karawitan musical instruments, group project assignments, and an open approach in open spaces has a positive impact.

This research provides significant implications for the development of education in elementary schools through the implementation of Karawitan Local Wisdom-based learning. The results show that a project-based learning model with an open approach can increase students' responses and their active learning, encouraging the need to develop more contextual learning models. Apart from that, the implications also include the importance of aligning Karawitan Local Wisdom-based learning with the national curriculum, the need for teacher training and development to integrate traditional musical arts, and the role of students as agents of change in preserving local wisdom.

Overall, this research provides an innovative view of local education by enriching students' learning experiences and strengthening Indonesian cultural identity. It is hoped that this implication can make a positive contribution to improving the quality of education at the elementary school level and preserving local wisdom in a sustainable manner. However, this research also has limitations that need to be considered, namely that the generalization of the results may be limited to the context of Sendangsari Village and caution is needed in applying these findings to different educational environments.

4. CONCLUSION

The research results show that the implementation of Karawitan Local Wisdom-based learning at the Sendangsari Village Elementary School, through a project-based and open approach, has had a significant positive impact on students' responses and their activeness in the learning process. There is a real increase in students' interest, understanding and appreciation of the learning material, along with more intensive student participation. Although these results make a positive contribution to the preservation of local wisdom and cultural identity, this research has contextual limitations in one village and limitations in the trial cycle time. Therefore, this research is an important basis for further research in exploring the dynamics of implementing Karawitan Local Wisdom-based learning in various educational contexts.

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