

Implementation of game variations traditional in improving elementary school physical education learning

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ABSTRACT

Traditional games are part of the cultural heritage that contain educational, social, and character values, but their existence is increasingly marginalized due to the dominance of modern games and less varied Physical Education learning. This condition has an impact on low motivation, participation, and reduced integration of local cultural values in learning in elementary schools. This study aims to analyze how the implementation of traditional game variations improves Physical Education (PE) learning in elementary schools in Lahat Regency. The research uses a qualitative-dominant descriptive design, complemented by simple descriptive quantification of the questionnaire responses. The population and sample of the study were 42 elementary school students in Lahat Regency. Local traditional games include Adang-adangan, Benteng-bentengan, Damdas, Cak Bikak, and Yeye in Physical Education learning activities. The research instruments include observation, semi-structured interviews, questionnaires, and documentation. Data analysis was carried out using qualitative thematic analysis through the stages of data reduction, data presentation, and drawing conclusions, and strengthened by data triangulation. The results of the study indicate that the implementation of variations of traditional games increases student engagement, motivation, and active participation in Physical Education learning. Students demonstrated development in motor skills, cooperation, sportsmanship, self-confidence, and mutual respect. In conclusion, variations in traditional games are an effective, enjoyable, and contextual Physical Education (PE) learning strategy to improve the quality of learning in elementary schools. Further research can sustainably integrate traditional games into learning and encourage schools and policymakers to support the preservation of local culture through the PE curriculum.

Keywords: Implementation; traditional games; improving; learning; physical education (PJOK)



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INTRODUCTION

Indonesia is a nation rich in culture, encompassing ideas, values, norms, behavioral patterns, and human creations passed down from generation to generation. One manifestation of this culture is traditional games, which are spread throughout the archipelago and form part of the local wisdom of the community (Gustian, 2020; Mulyana & Lengkana, 2019). Traditional games not only serve as entertainment, but also contain educational, social, and moral values that are important for children's development (Adhariah, 2018; Wardika, 2019). Traditional games in national education have a strong legal basis through Law Number 20 of 2003 concerning the National Education System and Law Number 5 of 2017 concerning Cultural Progress, which emphasizes the importance of developing the full potential of students while preserving the nation's culture.

However, technological advancements and the dominance of modern digital-based games have increasingly marginalized traditional games, making them less popular among children, including in Lahat Regency. This has led to a decline in the younger generation's understanding of local cultural values and reduced opportunities for children to develop social skills, teamwork, and character through contextual play activities. Yet, traditional games such as Adang-adangan, Benteng-bentengan, Damdas, Cak Bikak, and Yeye, still popular in Lahat Regency, have significant potential for integration into Physical Education lessons in elementary schools as a fun and meaningful learning medium.

Several studies have shown that traditional games contribute positively to children's social, motor, and character development (Fauzi et al., 2023; Mashuri, 2022; Nopembri, 2024; Bile, 2026). Hanief, (2017); Sutini, (2018) found that traditional games can improve students' social interaction and cooperation skills in physical education learning. Hasanah, (2016) also reported that the experience of playing together through traditional games helps children manage emotions and appreciate the roles of team members. Ariyanto & Gustian, (2020); Hidayati & Lestari, (2021) emphasized that traditional games are effective in developing attitudes of cooperation and communication in early childhood.

Game-based approaches can increase student motivation and engagement. Triprayogo et al., (2021), and strengthening character education through physical activities. These findings demonstrate that traditional games are relevant for implementation in Physical Education learning as an innovative and contextual pedagogical strategy. Theoretically, traditional games are understood as contextual learning vehicles derived from local culture and effective in shaping children's social, emotional, and character intelligence. (Puspitasari, 2016) This game contains the values of cooperation, honesty, discipline, responsibility, and sportsmanship, which align with the goals of character education. From a physical education perspective, play activities serve as a medium for developing students' motor skills, physical fitness, and social abilities. (Ningsih et al., 2021).

Unlike previous studies, which generally focused on a single type of traditional game or emphasized motor and social aspects in general, this study's novelty lies in the structured use of variations of local traditional games as a Physical Education learning strategy. The descriptive qualitative approach combines observation, interviews, and questionnaires to capture the dynamics of implementation in schools. It focuses on the specific cultural context of Lahat Regency, which has not been widely studied in the literature.

There is an urgent need for more innovative and contextual traditional games in Physical Education learning. This research contributes to local culture and improves the quality of Physical Education learning through a fun, meaningful, and character-oriented approach. The purpose of this study is to analyze how the implementation of variations of traditional games improves Physical Education learning in elementary schools in Lahat Regency, as well as to reveal the role of traditional

games as a learning medium oriented towards strengthening character, social skills, and preserving local culture.

METHOD

This research uses a qualitative approach with a descriptive design, complemented by simple descriptive quantification of the questionnaire data (a qualitative-dominant mixed-methods design), to explore in depth the implementation of variations of traditional games in Physical Education learning in elementary schools in Lahat Regency.(Sari et al., 2022; Tanzeh, 2018). The research focuses on understanding the processes, contexts, and experiences of subjects in the natural learning environment, with the researcher as the primary instrument of data collection.

The research subjects consisted of 42 elementary school students from three schools: SD Negeri 5 Pulau Pinang (20 students), SD Negeri 4 Pulau Pinang (13 students), and SD IT Ibnu Umar Lahat (9 students). Participants were selected using a purposive (total/census) sampling technique: all students who took Physical Education at the three schools and who had directly experienced the traditional-game-based lessons were included, which is why the number of participants and the number of cases coincide. Because this is a qualitative study, the adequacy of participants was judged by data saturation rather than by statistical representativeness. Supporting informants included physical education teachers, the principal, and representatives of parents to enrich the data.

The research instruments included observation, semi-structured interviews, questionnaires, and documentation. Observations were used to observe student engagement and participation in traditional games, interviews to explore stakeholder perceptions, questionnaires to measure student perceptions, and documentation to support and verify field data.(Darmalaksana, 2020; Suyitno, 2018).

Table 1. Student “Agree” or “Disagree” Questionnaire

No	Statement	S (Agree)	TS (Disagree)
1	I feel my body becomes healthier after playing traditional games.	<input type="checkbox"/>	<input type="checkbox"/>
2	I learned a lot about my local culture from traditional games.	<input type="checkbox"/>	<input type="checkbox"/>
3	While playing, I learned to respect different friends.	<input type="checkbox"/>	<input type="checkbox"/>
4	I can remain patient and not get angry while playing even if I lose.	<input type="checkbox"/>	<input type="checkbox"/>
5	I always focus and follow the traditional game until the end.	<input type="checkbox"/>	<input type="checkbox"/>
6	I often discuss and collaborate with friends while playing traditional games.	<input type="checkbox"/>	<input type="checkbox"/>
7	I look forward to PJOK lessons with traditional games because they are fun.	<input type="checkbox"/>	<input type="checkbox"/>
8	Traditional games help me to become more confident and active.	<input type="checkbox"/>	<input type="checkbox"/>
9	I enjoy learning new rules of different traditional games.	<input type="checkbox"/>	<input type="checkbox"/>
10	I want traditional games to continue to be developed so that physical education lessons become more exciting.	<input type="checkbox"/>	<input type="checkbox"/>

The research procedure consisted of three stages: preparation, implementation, and data analysis. The preparation stage included instrument development and permitting. The implementation stage included observations of traditional game-based physical education (PJOK) learning, interviews, and student questionnaires. The final stage was the management and analysis of all collected data.

Data were analyzed using qualitative thematic analysis through data reduction, data presentation, and conclusion drawing. Observation and interview data were analyzed thematically,

questionnaire data were analyzed descriptively using percentages to summarise response patterns and to complement, not replace, the qualitative interpretation, and data triangulation was performed to increase the validity of the findings.

Table 2.Forms of Traditional Games in Physical Education Learning

No	Game Name	Type Game	Number of Players	Main Activity Form	Developed Aspects	Physical Education Learning Objectives
1	ambush	Group – physical	8–12 people (2 teams)	Running, blocking, dodging	Cooperation, strategy, agility, discipline	Train speed, coordination, teamwork
2	Forts	Group - physique	8–12 people (2 teams)	Running, chasing, guarding the fort	Cooperation, sportsmanship, strategy, courage	Develop endurance, speed and solidarity
3	Damdas	Individual/ in pairs	2 people / 2 teams	Arranging pawns, thinking strategically	Concentration, logic, decision making	Train tactical thinking and focus
4	Cak Bikak	Individual	1–5 people	One foot and two foot jumps	Balance, coordination, gross motor skills	Train balance and agility
5	Yeye (jump rope)	Group - physique	3–8 people	Jumping over the rubber rope	Leg strength, rhythm, coordination, teamwork	Develop gross motor skills and muscle endurance

RESULTS

This study involved 42 students from three elementary schools in Lahat Regency, namely SD Negeri 5 Pulau Pinang, SD Negeri 4 Pulau Pinang, and SD IT Ibnu Umar Lahat. Of the total respondents, SD Negeri 5 Pulau Pinang contributed the largest number of students, namely 20 students or 47.62%. Furthermore, SD Negeri 4 Pulau Pinang was attended by 13 students representing 30.95% of the total respondents. Meanwhile, SD IT Ibnu Umar Lahat contributed 9 students or around 21.43% of the total students involved in the study. This distribution shows that the research subjects are spread proportionally across three schools with different characteristics, thus providing a fairly representative picture of the implementation of variations of traditional games in Physical Education learning in Lahat Regency.

Table 3. Distribution of Students

No	School	Number of Students	Percentage (%)
1	State Elementary School 5 Pulau Pinang	20	47.62
2	State Elementary School 4 Pulau Pinang	13	30.95
3	Ibnu Umar Islamic Elementary School, Lahat	9	21.43
	Total	42	100

Observation results showed that students in the three schools demonstrated high levels of engagement, motivation, and participation during the implementation of variations of traditional games (Adang-adangan, Benteng-bentengan, Damdas, Cak Bikak, and Yeye). A summary of the observation results is presented in Table 4.

Table 4. Summary of Observation Results of Traditional Games Implementation

Observed Aspects	Key Indicators	General Findings
Student involvement	Liveliness, enthusiasm	Students are very active and enthusiastic in participating in the game.
Participation	Participation, consistency of play	Almost all students were fully involved until the game was finished.
Motivation	Excitement, happy expression	Motivation to learn PJOK has increased significantly
Social interaction	Cooperation, communication, sportsmanship	There is increased cooperation and mutual respect.
Compliance with regulations	Discipline, honesty	Students obey the rules of the game well
Motor aspects	Running, jumping, balance	Basic movements develop according to the demands of the game

The questionnaire results showed that students responded very positively to traditional game-based physical education (PJOK) learning. Details of the questionnaire results are presented in Table 5.

Table 5. Results of the Student “Agree” or “Disagree” Questionnaire

No	Statement Items	SDN 5 PP (S/TS)	SDN 4 PP (S/TS)	SDIT Ibnu Umar (S/TS)
1	The body becomes healthier after playing traditional games	20 / 0	13 / 0	9 / 0
2	Learn regional culture from traditional games	20 / 0	13 / 0	9 / 0
3	Learn to respect different friends	20 / 0	12 / 1	9 / 0
4	Stay patient and don't get angry even if you lose.	20 / 0	13 / 0	9 / 0
5	Focus on following the game until the end	20 / 0	11 / 2	9 / 0
6	Discuss and collaborate with friends	20 / 0	13 / 0	9 / 0
7	Looking forward to PJOK lessons because they are fun	20 / 0	13 / 0	9 / 0
8	Become more confident and active	20 / 0	13 / 0	9 / 0
9	Enjoy learning new rules of traditional games.	20 / 0	13 / 0	9 / 0
10	Want traditional games to continue to be developed	20 / 0	13 / 0	9 / 0

Based on the recapitulation of student questionnaire responses, it is generally seen that the level of student acceptance of traditional game-based physical education learning is in the very high category in all three schools. At SD Negeri 5 Pulau Pinang, all 20 respondents answered “agree” to all statement items, resulting in a percentage of 100%. The same result was also shown by SD IT Ibnu Umar Lahat, where all 9 respondents responded “agree”, with a percentage of 100%. Meanwhile, at SD Negeri 4 Pulau Pinang, out of 13 respondents, an average response of “agree” was obtained from

12.4 of the 13 respondents on average per statement item (95.38%), which indicates that almost all students also gave a positive assessment of traditional game-based physical education learning.

Table 6. Summary of Students' "Agree" Responses

School	Number of Respondents	Average Agree	Percentage (%)
State Elementary School 5 Pulau Pinang	20	20	100
State Elementary School 4 Pulau Pinang	13	12.4	95.38
Ibnu Umar Islamic Elementary School, Lahat	9	9	100
Combined	42	41.4	98.57

Overall, when combined across the three schools, the average "agree" response was 41.4 out of a total of 42 respondents, representing a percentage of 98.57%. This finding indicates that the vast majority of students have a very positive perception of the implementation of variations of traditional games in Physical Education learning. This high percentage of "agree" responses indicates that traditional games are very well received by students and are seen as a fun, engaging, and meaningful learning approach to improving the quality of Physical Education learning in elementary schools.

Interviews with stakeholders showed that the implementation of variations of traditional games in Physical Education lessons was positively perceived by all parties involved. Physical Education teachers considered traditional games to be an effective learning strategy because they were able to increase student motivation and activeness during Physical Education lessons. The principal viewed the implementation of traditional games as being in line with the school's policy of strengthening character education and contributing to efforts to preserve local culture. Meanwhile, parents expressed a positive impact on children, particularly in the form of increased enthusiasm for learning, self-confidence, and enjoyment of Physical Education lessons. Overall, the findings of these interviews indicate a congruence of views among teachers, schools, and parents regarding the relevance and benefits of traditional games as a meaningful and contextual approach to Physical Education learning (Gustian et al., 2025; Ezeddine et al., 2025; Bete et al., 2026).

DISCUSSION

Physical Education learning in elementary schools still faces various problems, including low student motivation, lack of variety in learning, and minimal integration of local cultural values in the learning process.(Adi et al., 2023)The dominance of modern games and digital activities is increasingly alienating children from traditional games, which are rich in educational, social, and character-based values. This problem is exacerbated by the decline in traditional play practices among children, thus depriving schools of a contextual learning resource that is closely connected to students' lives (Luchoro-Parrilla et al., 2021; Lidström et al., 2022).

This situation demands innovation in Physical Education learning that not only enhances physical aspects but also revitalizes local wisdom and strengthens character education. The findings of this study indicate that variations in traditional games serve as meaningful and contextual learning media. Theoretically, this aligns with the viewAgustin et al., (2021); Rusmawati, (2016) which states that traditional games are a contextual learning tool based on local culture that is effective in developing children's social and emotional intelligence. The integration of traditional games into Physical Education (PJOK) also supports the concept of holistic physical education, which is not only oriented towards mastering motor skills, but also towards the formation of character, social values,

and sportsmanship (Lavega-Burgués et al., 2023; Çinar & Hassani, 2026; Hassani & Afazeli, 2024).(Masrurin, 2021).

The results of this study are consistent with the findings Kusmaedi, (2016); Subekti et al., (2020) which shows that traditional games improve students' social interaction and cooperation in physical education learning. Traditional games are effective in developing attitudes of cooperation, communication, and emotional control in children.(Mustafa & Masgumelar, 2022) However, this study expands on these findings by showing that it is not just one type of traditional game that has a positive impact, but rather a variety of local traditional games that are systematically integrated into Physical Education learning.

The main contribution of this study lies in the use of variations of traditional games typical of Lahat Regency as a learning strategy for Physical Education. Unlike previous research, which generally examines a single type of game or focuses on one aspect of child development, this study demonstrates that integrating several games with varying physical, cognitive, and social characteristics can create a more holistic Physical Education learning experience.

This study positions traditional games not merely as physical activities, but as a medium for character education and the preservation of local culture. This approach broadens the meaning of Physical Education learning from simply improving physical fitness to a vehicle for developing students' cultural identity, social solidarity, and moral values. Practically, the findings of this study provide an empirical basis for Physical Education teachers to adopt traditional games as part of routine learning strategies. Traditional games have proven to be easily adapted to limited school facilities and relevant to the characteristics of elementary school students.

For schools and educational policymakers, this study demonstrates that local cultural preservation can be concretely integrated into the curriculum through physical education (PJOK) instruction. Theoretically, this study enriches the literature on local culture-based physical education and supports a contextual learning paradigm that places students' cultural experiences as the primary learning resource. Despite providing meaningful findings, this study has several limitations. First, the study used a descriptive qualitative approach, thus not quantitatively measuring the impact of traditional games on improving student learning outcomes or physical fitness. Second, the number of study subjects was limited to three schools in Lahat Regency, so generalizing the findings to other regional contexts requires caution. Third, the study's duration was relatively short, so it was not able to capture the long-term impact of implementing traditional games on student character development and fitness.

These limitations open up opportunities for further research using experimental or mixed methods designs with a broader geographical and temporal reach. Overall, this study strengthens previous theories and findings on the benefits of traditional games in physical education, while also presenting a new perspective through a game variation approach based on local culture. These findings emphasize that traditional games are not only relevant for preservation but also strategic for development as meaningful, enjoyable, and character-oriented innovations in physical education (PJOK) learning.

CONCLUSION

This study concludes that the implementation of variations of traditional games is an effective, contextual, and meaningful Physical Education learning strategy in improving the quality of learning in elementary schools in Lahat Regency. In line with the research objectives, the findings indicate that the implementation of five local traditional games: Adang-adangan, Benteng-bentengan,

Damdas, Cak Bikak, and Yeye, can increase student engagement, motivation, and active participation, and contribute to the development of motor skills, social attitudes, and character. This approach broadens the understanding that the diversity of traditional game forms with different physical, cognitive, and social characteristics can create a more holistic and adaptive learning experience to students' needs. This study strengthens the concept of holistic physical education and contextual learning based on local culture, which places students' cultural experiences as the main learning source. Methodologically, the use of a descriptive qualitative approach with data triangulation through observation, interviews, questionnaires, and documentation provides a complete picture of the process and meaning of implementing traditional games in Physical Education learning. Practically, the findings of this study provide an empirical basis that traditional games are easily adapted to limited school facilities and are effective in creating more enjoyable, interactive, and character-oriented Physical Education learning.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article.

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