



The Effect of the Tapa Gala Game on the Physical Education Learning Motivation of Elementary School Students

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Abstract

Objectives: Physical Education, Sports, and Health (PJOK) aims to develop students' physical abilities, engagement, cooperation, and positive attitudes. However, low motivation and limited participation remain challenges, particularly when learning activities are monotonous. The traditional game Tapa Gala offers an alternative by integrating physical activity, teamwork, strategy, and peer interaction. This study aims to determine the effect of Tapa Gala on the PJOK learning motivation of fifth-grade students at MIN 6 Bima.

Materials and Methods: This quantitative experimental study employed a pretest-posttest control group design involving 29 fifth-grade students at MIN 6 Bima, selected through purposive sampling and divided into an experimental group (15 students) and a control group (14 students). Data were collected using a learning motivation questionnaire, observation sheets, and teacher interviews. Data were analyzed using descriptive statistics, the Shapiro-Wilk normality test, Levene's homogeneity test, and an independent sample t-test at a 0.05 significance level.

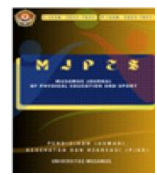
Results: Learning motivation increased in both groups, but the experimental group showed a greater improvement. The control group mean increased from 85.79 to 88.43, while the experimental group increased from 86.73 to 122.27 after the Tapa Gala intervention. The data met normality and homogeneity assumptions, with Levene's test yielding 0.723 (>0.05). The pretest showed no significant difference (Sig. = 0.743 > 0.05), whereas the posttest showed a significant difference ($t = -10.227$; Sig. = 0.000 < 0.05).

Conclusions: Tapa Gala has a positive and significant effect on PJOK learning motivation among fifth-grade students at MIN 6 Bima. Thus, Tapa Gala can serve as an effective alternative for enhancing student motivation while supporting active and enjoyable learning and the preservation of local culture.

Keywords: Traditional Game; Tapa Gala; Learning Motivation;

Introduction

Physical Education, Sports, and Health (PJOK) is a vital component of the educational process, aiming to comprehensively develop students' physical, mental, emotional, and social capabilities (Shandi, 2021). Through PJOK instruction, students are expected to attain physical fitness and sound movement skills, as well as cultivate sportsmanship, discipline, and a sense of responsibility (Rifqi Nur Budi Pamungkas¹, Ririn Eka Rindiana², Rohmatulloh Ma'arif³ et al., 2025). Furthermore, PJOK plays a role in shaping healthy lifestyle habits and instilling values such as cooperation, honesty, and self-confidence from an early age (Yuli Kombong¹, 2023). However, the implementation of PJOK in elementary schools still faces various challenges, particularly low student learning motivation. Learning motivation is a crucial factor influencing student engagement in the learning process (Indriani & Ashfaq, 2021). Students with low motivation tend to lack enthusiasm and active participation, and they easily become bored because the instruction remains monotonous and lacks variety (Noval Mahdiylhaqqi¹, Ibnu Fatkhu Royana¹, 2025). These conditions indicate that PJOK



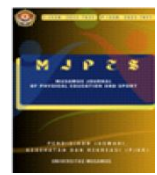
instruction has not yet fully succeeded in creating an enjoyable learning atmosphere or fostering active student engagement, meaning that learning objectives have not been optimally achieved (Muhammad Suwandi^{1*}, Mochamad Ridwan², 2026)

If this situation persists, the objectives of Physical Education namely developing physical fitness, movement skills, sportsmanship, and cooperation will be difficult to fully achieve (Mohammad Mashiruddin¹, Muhammad Muhyi², Laila Fitria³, Mochammad Zakaria Dwi Pangestu⁴, Icha Septian Nur Permatasari⁵, Linda Yanti⁶, 2026). Therefore, innovative and engaging instructional strategies are needed to boost student learning motivation (Riyan Sukmana¹, Asep Angga Permadi², 2025). One viable alternative is the traditional game of Tapa Gala, as it offers an activity that is enjoyable, interactive, and contextual. Beyond honing movement skills, the game also fosters social values, cooperation, and strategic thinking. Thus, implementing the traditional game of Tapa Gala can not only enhance student learning motivation but also support the preservation of local culture.

Learning motivation is an internal drive that compels students to engage willingly and enthusiastically in the learning process and strive toward specific learning goals. This motivation encompasses a desire to comprehend the material, perseverance in overcoming challenges, and enthusiasm for active participation in learning activities (Dierendonck et al., 2023). Learning activities are driven by an individual's desire to fulfill their needs (Anisyah Rahmadania¹, 2023). Motivation is the force that propels an individual or group to take action to achieve specific objectives (Ahmad Thiriq Musyafaq¹, Yasmine Azzahra², Dadan Fachry Ramadhan³, 2024). In the context of Physical Education (PJOK), learning motivation is crucial because the learning process requires not only an understanding of the material but also involves physical activity, the confidence to move, interaction with peers, and active engagement throughout the activities (Langøy et al., 2024). Therefore, instruction that fosters enjoyment, provides opportunities for movement, and encourages student interaction is essential for enhancing motivation to learn Physical Education (Miao et al., 2024). The traditional game Tapa Gala was selected for Physical Education (PJOK) instruction because it enhances student learning motivation through physical activity, teamwork, and game strategy, thereby fostering physical, emotional, and social engagement among students (Wahyuni et al., 2026).

One approach to creating more engaging Physical Education (PJOK) lessons is the use of traditional games (Ribas et al., 2023). Traditional games are play activities that have evolved within a community and been passed down through generations (Cobangbang & Rabago, 2025). In an educational context, these games serve as effective learning tools because they combine play with physical movement, social interaction, rules, teamwork, and strategy (Temel et al., 2024). Incorporating games into instruction allows students to learn through direct experience, shifting the focus from mere content delivery to active student engagement (Ho et al., 2022). Although game-based methods do not always yield a significant impact on learning outcomes, the use of traditional games has been shown to contribute more effectively to improved results (Syawaluddin & Aeni, 2025). This demonstrates the potential of traditional games as an alternative for fostering a more active and enjoyable learning environment (Aliriad et al., 2024).

One traditional game suitable for implementation in Physical Education (PJOK) lessons is Tapa Gala. Originating from the Bima region, Tapa Gala is a traditional game that involves physical movement, teamwork, and strategic planning. These characteristics align well with the nature of Physical Education for primary school students aged 10–12, as the game requires them not only to engage in physical activity but also to interact with peers, adhere to rules, devise strategies, and strive to achieve the game's objectives (Çinar & Hassani, 2026). The physical, emotional, and social engagement fostered by Tapa Gala



is expected to create a more engaging learning experience, ultimately boosting student motivation to participate in Physical Education classes. Thus, Tapa Gala offers more than just recreational value; it serves as an instructional approach that integrates physical activity, teamwork, strategy, and local cultural values.

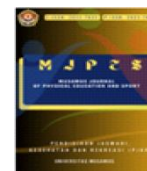
Various previous studies indicate that traditional games have a positive impact on students' learning motivation. Examples include findings that the traditional boosts student enthusiasm, engagement, and participation in Physical Education (PJOK) lessons (Çinar & Hassani, 2026). the game Tapa Gala plays a crucial role in enhancing student cooperation and tolerance (Satriawan et al., 2025).and the traditional game Hadang improves learning motivation among fifth-grade elementary students(Alotaibi, 2024). Additionally, Tapa Gala contributes to the development of students' gross motor skills specifically coordination, balance, strength, and agility (Janatul Aini1i, 2025). and can enhance problem-solving abilities within Physical Education lessons (Erimansyah1,2025). Traditional games positively influence both learning motivation and movement skills, making them suitable for active and enjoyable learning approaches(Felix Adriano Tarigan Sibero et al., 2024). Learning motivation is influenced by factors such as selfm efficacy, interest in learning, and emotional intelligence (Hervina Kusumaningrum1, Muhammad Feriady2 1, 2026). Finally, since traditional games can boost student motivation, game based learning serves as an effective instructional strategy (Elma Kurnia1, Arissona Dia Indah Sari2 1, 2023).

While various studies have demonstrated the benefits of traditional games in education, there remains a need to further investigate the specific use of the Tapa Gala game as an approach to enhancing the Physical Education (PE) learning motivation of elementary school students. Previous research has largely focused on aspects such as cooperation, tolerance, gross motor skills, problem-solving, or the use of traditional games in general (Agung Stiawan, 2024). Meanwhile, studies specifically examining the impact of the Tapa Gala game on the PE learning motivation of elementary school students aged 10–12 at MIN 6 Bima remain limited. This gap provides the rationale for the current study. The study's novelty lies in the implementation of the traditional Tapa Gala game as an intervention in PE instruction, with a specific focus on changes in students' learning motivation. Furthermore, the study employs an experimental approach comparing a group receiving the Tapa Gala intervention with a control group thereby allowing for a more focused observation of the game's impact on learning motivation.

Based on observations, incorporating traditional games into Physical Education (PJOK) lessons serves as an effective alternative for boosting student learning motivation (Muhamad Nurohman1, 2019). One such game is Tapa Gala, a traditional game originating from the Bima region. It involves active physical movement, teamwork, and strategic planning, making it well-suited for Physical Education lessons with primary school students aged 10–12. Utilizing the traditional game of Tapa Gala is one strategy employed to enhance student learning motivation (Satriawan et al., 2025).

This study was conducted due to students' low learning motivation in Physical Education (PJOK) classes at the elementary school level a situation that resulted in a lack of enthusiasm and active participation, making it difficult to achieve learning objectives (M. Zainul Abidin 1, 2024) The traditional game Tapa Gala was selected as an alternative because it is capable of boosting learning motivation, engaging students physically, emotionally, and socially, and preserving local culture.

The significance of this study lies in the need to identify a form of Physical Education (PJOK) instruction capable of addressing low student learning motivation through activities that are active, enjoyable, and suited to the characteristics of elementary school students(Aliriad et al., 2024). The implementation of Tapa Gala is expected not only to enhance student engagement in the learning process but also to offer practical



benefits for Physical Education teachers by providing an alternative instructional strategy that integrates physical activity, teamwork, game tactics, and local cultural values. Consequently, the findings of this study are expected to contribute to the development of traditional game-based Physical Education instruction specifically by boosting student learning motivation while simultaneously introducing and preserving the traditional games of the Bima region within the educational setting.

This study aims to determine the effect of the traditional game Tapa Gala on the Physical Education (PJOK) learning motivation of elementary school students aged 10–12 years at MIN 6 Bima.

Materials and Methods

Study Design

This study employs a quantitative approach using an experimental method. This approach was selected to determine the effect of the traditional game Tapa Gala on students' learning motivation in Physical Education (PJOK). Through the experimental method, the researcher is able to implement an intervention and compare the results between the experimental group and the control group.

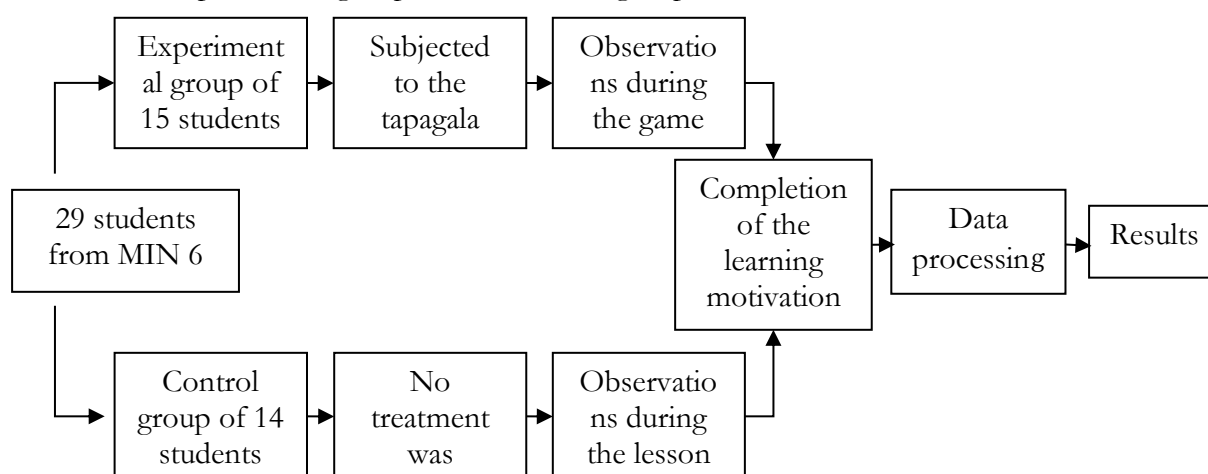


Figure 1. Research flowchart

The scope of the research encompasses Physical Education, Sports, and Health (PJOK) instruction at the elementary school level, specifically at MIN 6 Bima. The object of the study is students' learning motivation in PJOK, as influenced by the implementation of the traditional game Tapa Gala. The research instruments employed included a learning motivation questionnaire, a student activity observation sheet, and an interview guide. The research procedure began by dividing 29 Grade V-B students into experimental and control groups, followed by administering a pre-test to both groups to assess their initial levels of learning motivation. Subsequently, the experimental group participated in Physical Education (PJOK) lessons incorporating the traditional game Tapa Gala while the control group underwent instruction without the use of this game. Student activities were monitored using the observation sheet throughout the intervention period. Upon completion of the intervention, both groups were administered the learning motivation questionnaire to identify changes in motivation, while interviews with the Physical Education teacher were conducted to gather supporting data. The collected data were then analyzed using descriptive statistics and t-tests to determine the impact of the Tapa Gala game on students' learning motivation in Physical Education.



This study examines the influence of the Tapa Gala game on learning motivation in Physical Education (PJOK). The Tapa Gala game variable is measured through indicators of teamwork, game strategy, and speed/agility, with direct observation conducted during gameplay. Meanwhile, PJOK learning motivation is measured through indicators of interest in participating in activities and participant engagement, using a learning motivation questionnaire. The study focuses on determining the impact of Tapa Gala game activities on participants' learning motivation within PJOK instruction.

Study Participants

This study was conducted at MIN 6 Bima, Bima Regency, West Nusa Tenggara, during the even semester of the 2026–2027 academic year. The study population consisted of 29 students from class 5B at MIN 6 Bima. The sample was selected using purposive sampling, a technique involving sample selection based on specific criteria aligned with the research objectives. The 29 participating students were divided into two groups: an experimental group that participated in the Tapa Gala game and a control group that did not receive the game based intervention. The materials used in the study included a learning motivation questionnaire and a student activity observation sheet. Meanwhile.

Study Organization

This study employs a quantitative approach using an experimental method to determine the effect of the traditional game Tapa Gala on students' learning motivation in Physical Education (PJOK). The research was conducted at MIN 6 Bima during the even semester of the 2026–2027 academic year, involving Grade VB students divided into experimental and control groups. The experimental group participated in Physical Education lessons incorporating the traditional game Tapa Gala, while the control group followed standard instruction without this intervention.

The research instruments employed included a learning motivation questionnaire, a student activity observation sheet, and brief interviews with the Physical Education teacher as supporting data. The questionnaire was used to measure students learning motivation before and after the intervention, while the observation sheet was used to record student activities during the learning process.

The data collection process began with administering a pre-test to both groups to assess the students initial level of learning motivation. Subsequently, the experimental group received a treatment consisting of Physical Education (PJOK) instruction using the Tapa Gala game, while the control group underwent instruction without the treatment. Throughout the instructional period, the researcher observed student activities. Once the treatment concluded, both groups were administered a post-test using the same questionnaire to measure changes in learning motivation.

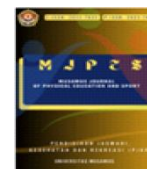
The research stages comprised preparation, implementation, data collection, and data analysis. The collected data were analyzed using descriptive statistics to describe data characteristics and inferential statistics specifically the Independent Sample t-test to determine the effect of the traditional game Tapa Gala on students learning motivation.

Statistical Analysis

The research data were analyzed using descriptive statistics to describe data characteristics through minimum and maximum values, the mean, standard deviation, frequency, and the percentage of students' learning motivation.

Prior to hypothesis testing, the data are first subjected to normality and homogeneity tests as prerequisites for the analysis. The normality test aims to determine whether the data are normally distributed, whereas the homogeneity test is used to assess the equality of variances across the research groups.

After satisfying the prerequisite tests, hypothesis testing was conducted using an independent sample t-test to determine whether there was a significant difference in



learning motivation between the experimental group which received the Tapa Gala traditional game intervention and the control group, which did not. Decision-making was based on a significance level (Sig.) of 0.05. If the Sig. value was less than 0.05, the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected, indicating that the Tapa Gala traditional game had a significant effect on students' learning motivation in Physical Education (PJOK).

Results

Table 1. Descriptive Analysis

Variables	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Control pre-test	14	74	96	85.79	7.062	49.874
Control post-test	14	79	102	88.43	8.281	68.571
Experimental pre-test	15	70	98	86.73	8.259	68.210
Experimental post-test	15	110	137	122.27	9.445	89.210
Valid N (listwise)	14					

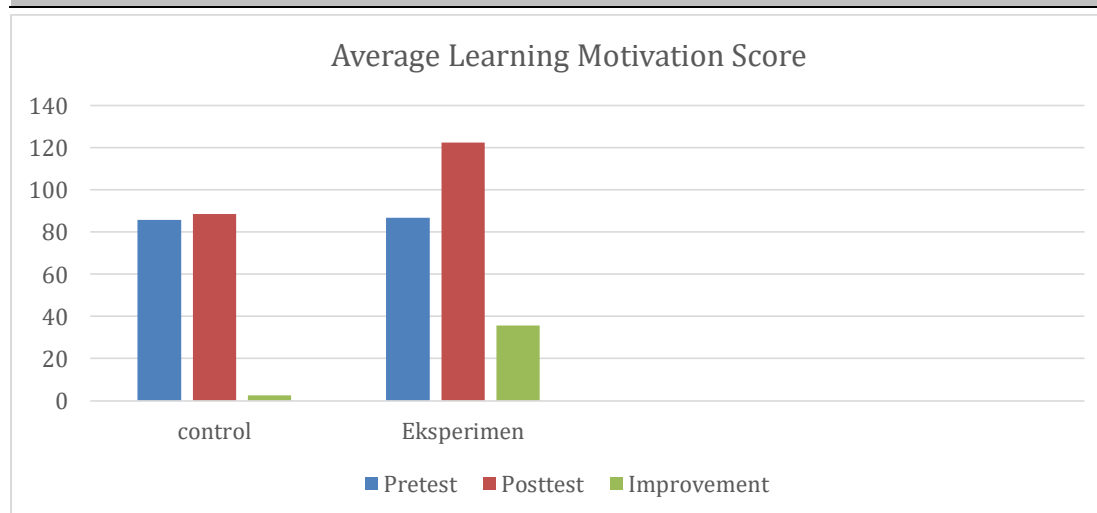


Figure 1. Average Learning Motivation Score

Based on Table 1, the descriptive analysis results indicate that for the control group, pretest scores for PE learning motivation ranged from 74 to 96, with a mean of 85.79 and a standard deviation of 7.062. Following the instruction, posttest results showed a minimum score of 79 and a maximum of 102, with the mean increasing to 88.43 and the standard deviation to 8.281. These results indicate an increase in learning motivation within the control group, although the increase was relatively small.

Descriptive analysis results indicate that the Physical Education (PJOK) learning motivation scores for the experimental group during the pretest ranged from 70 to 98. The mean score was 86.73, with a standard deviation of 8.259. Following the intervention using the traditional game Tapa Gala, posttest results showed a significant increase, with scores ranging from a minimum of 110 to a maximum of 137. The analysis revealed that the mean score rose to 122.27, with a standard deviation of 9.445.

Overall, both groups experienced an increase in motivation to learn Physical Education (PJOK) following the instructional process. However, the increase observed in the experimental group was significantly greater than that of the control group.



Improvements in learning outcomes were also higher in the experimental group compared to the control group; this is evidenced by an average score increase of 35.54 points in the experimental group, whereas the control group saw an increase of only 2.64 points. These findings indicate that the implementation of the traditional game 'Tapa Gala' has a more positive impact on enhancing students' motivation to learn Physical Education.

Table 2. Normality test

Group	Data	Sig	Sig. 0,05	Description
Control Group	Pretest	0,391	0,05	Normal
	Posttest	0,123	0,05	Normal
Experimental Group	Pretest	0,408	0,05	Normal
	Posttest	0,120	0,05	Normal

Based on the Shapiro-Wilk normality test results, the significance values were 0.391 for the control group's pretest and 0.123 for its posttest. The results also showed significance values of 0.408 for the experimental group's pretest and 0.120 for its posttest. Since all significance values exceeded 0.05, the pretest and posttest data for both groups met the assumption of a normal distribution. Consequently, the research data satisfied the normality assumption, allowing the analysis to proceed to the next stage.

Table 3. Homogeneity test

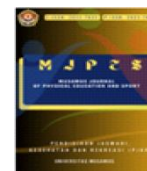
Data	Sig	Sig. 0,05	Note
Motivation for Learning Physical Education (PJOK)	0,723	0,05	Homogeneous

Based on the homogeneity test results using Levene's Test, a significance value (Sig.) of 0.723 was obtained. Since the significance value exceeds the 0.05 significance level ($0.723 > 0.05$), it can be concluded that the variances of the experimental and control group data are homogeneous. Thus, the research data meet the requirements for hypothesis testing using the Independent Sample t-test.

Table 4. Independent T-test: Control Class and Experimental Class (Pre-test)

Data	t Hitung	Sig. (2-tailed)	Sig. 0,05	Note
Pretest for Experimental and Control Groups	-0,331	0,743	0,05	significant difference.

Based on the analysis using the Independent Sample T-Test, a significance value (Sig. 2-tailed) of 0.743 was obtained. Since the significance value is greater than 0.05 ($0.743 > 0.05$), there is no significant difference between the pretest scores of the



experimental class and the control class. Thus, the initial abilities of both groups can be considered equivalent prior to the administration of the treatment.

Table 5. Independent T-test: Control Class and Experimental Class (Post-test)

Data	t-test	Sig. (2-tailed)	Sig. 0,05	Note
Post-test for Experimental and Control Groups	-10,227	0,000	0,05	There is a significant difference.

Based on the Independent Sample T-Test results for the posttest data, the calculated t-value was -10.227 and the significance value (Sig. 2-tailed) was 0.000. Since the significance value is less than 0.05 ($0.000 < 0.05$), there is a significant difference between the posttest results of the experimental group and the control group. Thus, it can be concluded that the treatment administered to the experimental group had a significant effect on Physical Education (PJOK) learning outcomes.

Discussion

The research results indicate that the implementation of the traditional game Tapa Gala significantly influenced students' learning motivation in Physical Education (PJOK) at MIN 6 Bima. This is evident from the descriptive analysis, which shows an increase in the average learning motivation score for the experimental group from 86.73 at the pre-test stage to 122.27 at the post-test stage. In contrast, the control group experienced only a slight increase in the average score, rising from 85.79 to 88.43. These findings demonstrate that incorporating the traditional game Tapa Gala into the learning process contributes to enhanced student learning motivation, as reflected by higher motivation scores compared to the group that did not receive this intervention.

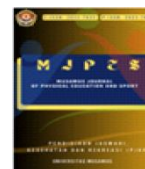
The normality test results indicate that all pretest and posttest data for both the control and experimental groups are normally distributed, as the significance values exceed 0.05. The homogeneity test yielded a significance value of 0.723; thus, it can be concluded that the variances of the two groups are homogeneous. With the assumptions of normality and homogeneity met, an Independent Sample T-Test can be conducted to test the research hypothesis.

Based on the Independent Sample T-Test results for the pretest data, a significance value of 0.743 (>0.05) was obtained. The analysis indicates that there was no significant difference in initial ability between the experimental group and the control group. This demonstrates that both groups shared relatively similar initial conditions prior to the intervention.

Furthermore, the Independent Sample T-Test results for the post-test data yielded a significance value of 0.000 (<0.05). The analysis indicates a significant difference between the experimental group and the control group following the intervention. This difference suggests that the traditional game Tapa Gala has a positive effect on enhancing students' learning motivation in Physical Education (PJOK).

The increase in learning motivation observed in the experimental group can be attributed to the characteristics of the Tapa Gala game, which requires students to be physically active, collaborate with teammates, and devise game strategies. These activities create a more enjoyable and varied learning environment, thereby boosting student enthusiasm for Physical Education (PJOK) lessons. When students feel happy and actively engaged in the learning process, their motivation to learn tends to increase.

The findings of this study align with the view expressed by (Dierendonck et al., 2023) that motivation is the force driving an individual to engage in an activity to achieve



a specific goal. In the context of this study, the Tapa Gala game serves as a stimulus that encourages students to participate more actively and enthusiastically in Physical Education (PJOK) lessons.

The results of this study also support research by (Çinar & Hassani, 2026) which found that traditional games can enhance students' enthusiasm, engagement, and participation in Physical Education (PJOK) lessons. Furthermore, research by (Alotaibi, 2024) demonstrates that traditional games can enhance the learning motivation of elementary school students. These consistent findings reinforce the conclusion that incorporating traditional games into Physical Education instruction is an effective strategy for increasing student learning motivation.

Based on the research findings supported by relevant theories and prior studies it can be concluded that the traditional game of Tapa Gala has a positive and significant impact on the Physical Education (PJOK) learning motivation of elementary school students. Therefore, Tapa Gala can serve as an alternative PJOK instructional strategy that is effective and enjoyable, while also capable of enhancing student engagement in the learning process.

Conclusions

Based on the research findings, it can be concluded that the traditional game Tapa Gala has a positive and significant effect on the Physical Education (PJOK) learning motivation of fifth-grade students at MIN 6 Bima. This is evidenced by the higher increase in learning motivation observed in the experimental group compared to the control group, as well as the Independent Sample T-Test results, which showed a significance value of 0.000 ($p < 0.05$). Thus, the Tapa Gala game serves as an effective alternative for Physical Education instruction to boost student learning motivation. Consequently, the Physical Education teacher recommends incorporating the traditional Tapa Gala game into lessons to enhance student motivation. Future researchers are encouraged to expand upon this study by using a larger sample or investigating other variables related to Physical Education instruction. This study was limited by a relatively small sample size 29 students which prevented a balanced allocation of participants into experimental and control groups. This issue warrants attention in future research, as it may affect sample representativeness and the generalizability of the findings. Therefore, future studies should aim for larger sample sizes with more balanced group assignments and consider a more diverse range of student characteristics. Additionally, future research could expand the scope by examining other variables such as active participation, social skills, or physical education (PJOK) learning outcomes to gain a broader understanding of the application of traditional games in instruction.

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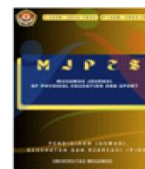
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Conflict of Interest

The authors declare no conflicts of interest.

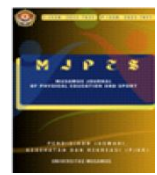
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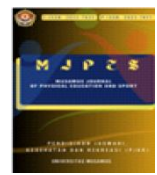
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