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## Implementation of Gobag Sodor and Clog Games in the PE Learning Process Can Improve the Cooperation Aspects of Fifth Grade Students of SDN 05 Parungpanjang

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ABSTRACT	ARTICLE INFO
<p>This study aims to determine the extent to which the implementation of Gobag Sodor and Clogs games in the physical education (PE) process can enhance the cooperation skills of Grade V students at SDN 05 Parungpanjang. The research utilized a pre-experimental design, specifically the one-group pretest-posttest design. The study population consisted of 30 Grade V students, selected using a random sampling technique. To measure the level of cooperation, a questionnaire instrument was administered before and after the intervention. Data analysis was performed using the paired sample t-test at a significance level of 0.05. The results demonstrated a statistically significant improvement in students' cooperation skills, indicated by a calculated t-value of 5.872, which is greater than the t-table value of 2.04. Additionally, the posttest average score (83.36) was notably higher than the pretest average score (75.33), showing an increase of 10.53%. These findings confirm that the use of traditional games such as Gobag Sodor and Clogs within the PE curriculum effectively enhances student cooperation, offering a dynamic and culturally relevant approach to social skill development. The study provides important implications for PE teachers to incorporate interactive, teamwork-focused activities to foster interpersonal competencies among elementary school students.</p>	<p><b>Article History:</b> <i>Submitted/Received 20 Des 2024</i> <i>First Revised 15 Jan 2025</i> <i>Accepted 20 Feb 2025</i> <i>First Available online 28 Mar 2025</i> <i>Publication Date 01 Apr 2025</i></p> <p><b>Keyword:</b> <i>traditional games,</i> <i>cooperation aspects,</i> <i>physical education,</i> <i>sport.</i></p>
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## 1. INTRODUCTION

Traditional games are games passed down from ancestors in which they contain various elements and values that have great benefits for those who play them (Khalid, 2008). According to (Civallero, 1989) traditional games are a form of children's games that circulate orally among members of certain collectives, are traditional and inherited from generation to generation, and has many variations, when viewed from the root of the word traditional games are nothing but activities governed by games which are inherited from previous generations by humans (children) with the aim of getting excitement, traditional games have grown and developed since ancient times, each region has a different type of traditional game.

Traditional traditional games can be introduced through physical education (Lin et al., 2006). Because physical education is an educational process through the provision of learning experiences to students in the form of physical activity, play and exercise and is planned systematically to stimulate the growth and development of physical, organic, motor skills and thinking skills, emotional, social and moral (Papastergiou, 2009).

Each region has a game that is almost the same in its implementation and many problems with other regions. The name of the game is the same, but not infrequently the name is different, even though the implementation is almost the same as other regional games, for example the game of gobag sodor, which in Central Java is known as gobag sodor, while in Jakarta it is called the game galasin, in North Sumatra it is known as margalah and other places are called by other names but the implementation of the game is almost the same.

The game of gobag sodor consists of 2 groups, namely guards and opponents. Each person makes a layered guard by marching backwards while spreading their arms so that they are not passed by the opponent, and one person stands guard in the middle line who moves straight from the other guards (Purba, 2019).

clogs or terompah is a traditional game originating from West Sumatra, which is made of two thick wooden boards in the form of sandals which are 123 cm long. clogs are a traditional children's game that has existed since the 1970s, such as footwear made of wood when used makes a loud sound and has a black rubber rope, the rubber rope is made from used tyres then made into a sanda-like rope, these clogs can be used by 2-3 children per team (Eka et al., 2020).

The clog game is one of the games that is often contested on Indonesian independence day, this traditional game is often found throughout Indonesia because this game is fun and challenging The aspect of developing affective in that must learn physical education at school is cooperation, cooperation will make students communicate more, respect each other, help each other with other friends, then to respect each other and give trust to group members so that it is expected to achieve the desired goal, for that cooperation attitude must be developed. In order to achieve the target and goal of achieving victory points, this research aims to find out whether traditional games (gobag sodor and clogs) can increase the values of cooperation in class IV students of SDN 05 PARUNGPAJANG.

## 2. METHODS

The The design used in this research is pre-experimental villageign. The pre-experimental village design method is not a real experiment, because there are still external variables that contribute to the formation of the dependent variable.' This happens because there are no control variables. While this research design uses a one group pretest and posttest design or the absence of a control group. The experimental method with a non-

separated sample means that the research has only one group, which is measured twice, the first measurement (pretest) is carried out before the subject is given treatment, then treatment (treatment), which is finally closed with the second measurement (posttest).

## POPULATION

The population in this study is the area that the researcher wants to study. Population is a generalisation area consisting of objects / subjects that have certain qualities and characteristics that are applied by researchers to study and then draw conclusions'. The population in this study were fifth grade students of SDN 05 PARUNG PANJANG.

## DATA COLLECTION TECHNIQUES

To obtain data that is in accordance with the objectives of this study, an experimental method is used with data collection techniques using a questionnaire. It explains that 'questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents.' Based on this statement, it strengthens researchers to use questionnaire techniques in the research conducted.

Data collection techniques to assess learner cooperation, researchers use questionnaires filled out by respondents. The questionnaire is used to determine the level of cooperation of students during learning. Questionnaires distributed to students during learning. Questionnaires were distributed to students at the time of the pretest and posttest. Furthermore, the data obtained was analysed with the help of the SPSS 20 application.

To obtain data that is in accordance with the objectives of this study, an experimental method is used with data collection techniques using:

- a. Preliminary test (pretest) The initial test was conducted before the study received treatment. Giving a pretest to the experimental class to find out the level of cooperation of students as measured using a cooperation questionnaire.
- b. Treatment Carry out learning with traditional games gobag sodor and clogs for 3 meetings. Treatment or done once a week.
- c. Final Test (pretest) After the treatment of the sample, the final test is carried out or called the posttest. The final test carried out is the same as the initial test, namely by giving a posttest in the form of a cooperation test using a cooperation questionnaire technique.

## Instrument Reliability Test

Reliability refers to an understanding that an instrument can be trusted to be used as a data collection tool because the instrument is good. The instrument is said to be reliable if it provides fixed or steady results when used many times. The instrument reliability test in this study used the help of the SPSS 20 programme. The results of the instrument test can be seen in table 3.3

Table 2.2 Instrument Reliability Test Results

<i>Reliability Statistics</i>	
<i>Cronbach's Alpha</i>	<i>N of Items</i>
.772	36

As a criterion for knowing the level of reliability, the classification proposed by Guilford in Suherman (2001: 139) is used as in table 3.4.

Table 3.4 classification of instrument reliability

Reability Coefficient	Degree Criteria Reability
0.91- 1.10	Strongly agree
0.71- 0.90	High
0.41- 0.71	Medium
0.21-0.41	Low
< 0.20	Very low

The result obtained is 0.772 which shows the criteria for a high degree of reliability. So it can be said that this instrument is reliable. For a complete calculation of the reliability test of the cooperation questionnaire.

### Hypothesis Testing

Hypothesis testing is a crucial statistical method used to determine if there is enough evidence in a sample of data to infer that a certain condition is true for the entire population. One common approach to hypothesis testing is the use of a t-test, especially when comparing the means of two groups. In this context, hypothesis testing is conducted using the t-test with the assistance of the SPSS software, which is a powerful tool for statistical analysis.

The process begins by collecting data from two groups, typically labeled as group 1 and group 2. In this case, group 1 represents the pretest data, and group 2 represents the posttest data. The purpose of this comparison is to determine if there is a statistically significant difference between the two groups' means, which would suggest that an intervention or change had an impact.

After calculating the means of both groups, the t-test is performed. The t-test evaluates whether the differences observed between the two means are likely to have occurred by chance or if they are significant enough to suggest a true effect. The t-test produces a value called tcount, which is then compared to a critical value known as ttable. The critical value, ttable, is derived from the t-distribution and depends on the desired significance level (typically 0.05) and the degrees of freedom in the data.

The decision rule for the hypothesis test is straightforward: if the calculated tcount is less than the ttable value, the null hypothesis ( $H_0$ ) is rejected, meaning there is not enough evidence to suggest a significant difference between the groups. Conversely, if tcount is greater than ttable, the null hypothesis is accepted, indicating that the observed difference is statistically significant and unlikely to have occurred by chance.

This approach is widely used in research to validate the effectiveness of interventions, treatments, or changes over time, providing a robust method for making data-driven conclusions.

> from ttable then  $H_a$  is accepted. According to Sugiyono (2012: 122) the sample t-test formula is as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r \left( \frac{s_1}{\sqrt{n_1}} \right) \left( \frac{s_2}{\sqrt{n_2}} \right)}}$$

$\bar{x}_1$  : mean of pretest group

$\bar{x}_2$  : mean of posttest group

$s_1$  : standard deviation of pretest group

$s_2$  : standard deviation of posttest group

$r$  : pretest group variance

$r$  : posttest group variance

$r$  : correlation between 2 groups

To determine the percentage of improvement after treatment, the calculation of the percentage of improvement is used with the following formula:

$$\text{Presentase} = \frac{\text{Mean Different}}{\text{Mean}} \times 100\%$$

## RESULTS AND DISCUSSION

The results of this study clearly demonstrate that the application of Gobag Sodor and Clogs games in the physical education (PE) learning process had a significant and positive impact on enhancing the cooperation skills of Grade V students at SDN 05 Parungpanjang. Significance in this study was determined based on two statistical criteria: the t-count value had to be greater than the t-table value, and the significance value (p-value) had to be less than 0.05. From the data analysis presented in Table 4.7 (supported by additional figures and tables), both conditions were met. Specifically, the t-count was 5.872, exceeding the t-table value of 2.04, and the obtained p-value was significantly smaller than 0.05, indicating strong statistical evidence to accept the alternative hypothesis ( $H_a$ ).

In terms of descriptive analysis, the pretest mean score of students' cooperation abilities was recorded at 75.33, while the posttest mean score rose to 83.36. This resulted in a mean difference of 7.933 points, which quantitatively translates into an overall increase of 10.53% in student cooperation skills after the intervention. This substantial improvement reflects the

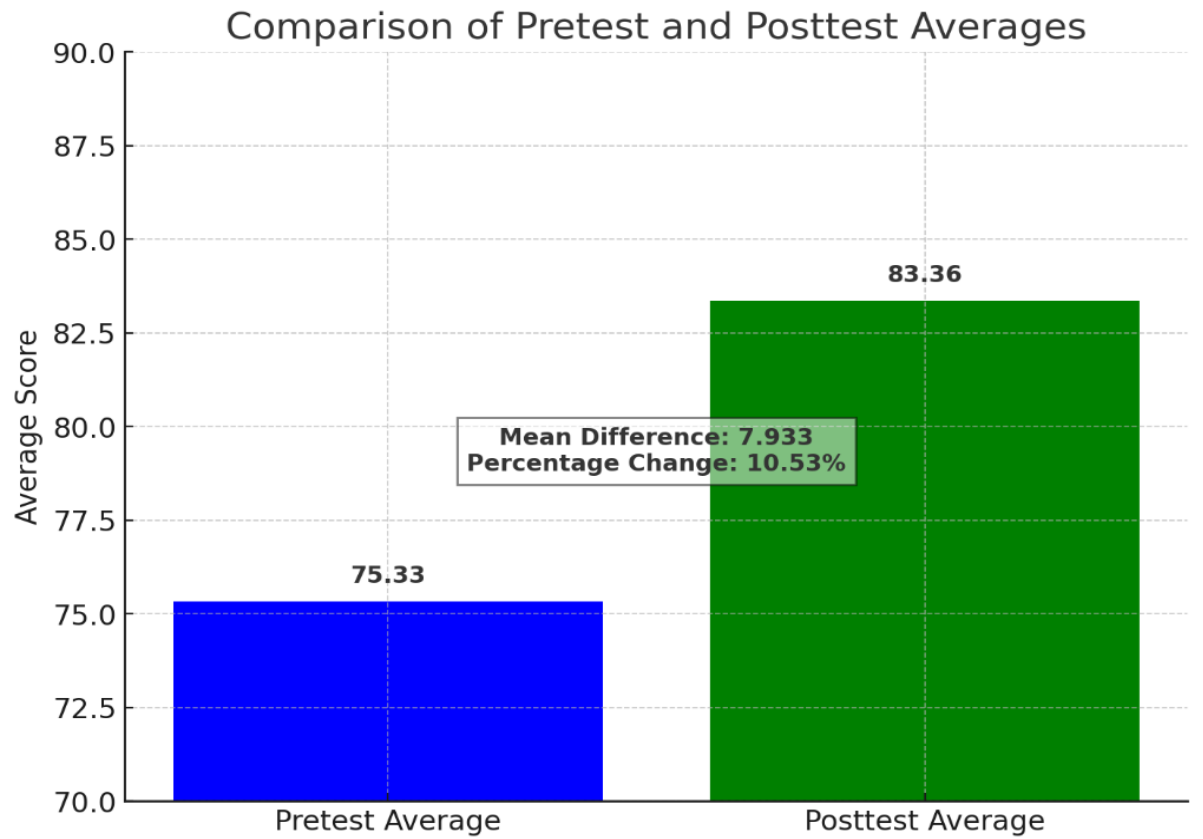
effectiveness of utilizing traditional games as instructional strategies to foster key social competencies in students.

Table 4.7 T-Test Results

Variable	<i>t-test for equality of Means</i>			
	t- hitung	t- tabel	Sig. (2-tailed)	Mean Difference
Teamwork	5,872	2,04	0,000	7.933

From the results of the t test, the data calculated that t count was 5.872> 2.04 (t-table) and a significant probability value of 0.000 <0.05. So Ha is accepted, meaning that there is a significant effect of traditional gobag sodor and traditional games in the process of learning PE can improve the cooperation aspects of class V students of SDN 05 PARUNGPAJANG.

Figure 1. Comparison of pretest and posttest



The findings of this study further emphasize that traditional games such as Gobag Sodor and Clogs are not merely recreational activities but also serve as powerful educational tools that inherently cultivate crucial social skills. These games demand a high level of team coordination, where students must synchronize their movements and strategies with teammates in real time. They also foster mutual trust, as success in the games heavily relies on the reliability and cooperation of each participant. Moreover, effective communication both verbal and nonverbal—is essential during gameplay, as players must continually exchange information and adjust their actions collaboratively to achieve their goals. Joint problem-solving is another critical element that is organically developed, as students must work together to overcome challenges presented within the dynamic flow of the game.

By participating in these structured yet playful activities, students are naturally encouraged to engage in prosocial behaviors, such as helping peers, encouraging one another, and demonstrating empathy. These behaviors are not limited to the gaming context; rather, they are highly transferrable to academic collaborations, group projects, and broader social interactions outside the classroom. Thus, traditional games play a dual role by simultaneously strengthening students' physical capabilities and social-emotional learning outcomes.

In addition, the culturally rooted nature of Gobag Sodor and Clogs provides students with a meaningful connection to local heritage and traditions, fostering a sense of cultural pride and belonging. Integrating such games into the physical education curriculum aligns with experiential learning theories (Kolb, 1984), which stress the importance of direct, hands-on experiences for deeper learning and personal development. Unlike conventional PE learning models that often prioritize individual physical performance, traditional game-based approaches prioritize collective success, thereby shifting the focus from competition to collaboration.

The structured inclusion of these traditional games also revitalized students' enthusiasm and participation levels during PE lessons. Observations indicated increased student engagement, attentiveness, motivation, and willingness to cooperate when compared to standard instructional models. This supports the notion that intrinsically motivating learning environments, where students find activities enjoyable and socially rewarding, can lead to more effective educational outcomes (Deci & Ryan, 2000).

#### **4. CONCLUSION**

Based on the research that has been conducted, it can be concluded that the implementation of traditional games such as Gobag Sodor and Clogs has been proven to significantly improve students' cooperation skills. The results showed a measurable increase in the level of cooperation among Grade V students at SDN 05 Parungpanjang, highlighting the effectiveness of incorporating traditional games into the physical education curriculum. This improvement indicates that traditional games are not merely recreational but serve as effective pedagogical tools for fostering important social skills, including teamwork, communication, mutual trust, and collective problem-solving. Through active participation in these culturally rich and physically engaging activities, students naturally develop behaviors and attitudes that support better collaboration both within and outside the classroom context. The findings of this study provide important information for physical education teachers and curriculum developers, emphasizing that learning experiences grounded in traditional, cooperative play can create more dynamic, participatory, and socially meaningful

educational environments. Therefore, it is highly recommended that traditional games be integrated systematically into physical education programs as a strategy to not only enhance motor skills but also promote the development of students' social-emotional competencies. Future studies could further explore the long-term impact of such games on broader aspects of student character development.

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