

The Influence of Traditional Games on Improving Physical Fitness of Class VI Students at SD Negeri 70 Palembang

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Abstract: Physical fitness is the body's ability to carry out daily activities without feeling excessive fatigue. So, someone with good physical fitness will always have enough energy to carry out physical activities smoothly. Improving physical fitness can be helped with several games, one of which is traditional games. By providing traditional games, including GalahAsin, UcingBaledog, Jump Rope and Oray-Orayan, elementary school students could improve their physical fitness. The aim was to determine the effect of traditional games on improving the physical fitness of class VI students. This research used an experimental method using a One-Group Pretest-Posttest research design with a research population of 30 Class V students using a saturated sampling technique including 14 male and 16 female students. The research instrument that the author used was the TKJI test. With the research results, the magnitude of the effect between the pre-test and the post-test was $0.593, \times 100\% = 59.3\%$. This shows that each participant was able to show an increase of 59.3% from the pre-test results to the post-test. This means that traditional games can increase the physical fitness of each participant by 59.3%. So, it can be concluded that traditional games have an influence on the physical fitness of class VI students. So, the use of traditional games was suitable for improving the physical fitness of class VI students at State Elementary School 70 Palembang.

Keywords: Physical Fitness, TKJI Test, Traditional Games

A. Introduction

Physical Education, Sports and Health (abbreviated as PJOK) is essentially an educational process that utilizes physical activity to produce holistic changes in individual quality, both physically, mentally and emotionally (Crawford, 2018). Physical education is a process of organic, neuromuscular, intellectual, social, cultural, emotional and aesthetic adaptation and learning resulting from the selection process of various physical activity. Traditional games have been played by children for generations, providing not only entertainment but also valuable opportunities for physical activity. These games often involve running, jumping, and other forms of movement that can help children develop their coordination,

strength, and endurance. In today's digital age, where children are spending more time indoors and in front of screens, the importance of physical fitness cannot be overstated. Regular physical activity is essential for children's overall health and development, helping to prevent obesity, improve cardiovascular health, and enhance mental well-being.

This is in line with research stated by (Koc, 2017) that physical education subjects play a positive role in student development in school-based learning activities so that PJOK learning is also used in schools to play a positive role in students' academic achievement and physical activity, as well as as a means of improving children's health and welfare. Traditional games have been played for generations, providing not only entertainment but also opportunities for physical activity and exercise. These games often involve running, jumping, and other movements that can help improve cardiovascular health, coordination, and overall fitness. In addition, playing traditional games can also promote social interaction, teamwork, and sportsmanship among participants. Overall, incorporating traditional games into a fitness routine can offer a fun and engaging way to stay active and reap the numerous benefits of physical exercise.

Traditional games are games owned by a community group (Marsia & Ashmarita, 2018). Traditional games adhere to norms and customs that are passed down from generation to generation orally (Catellier, 2021). Generally, traditional games have been around since ancient times, because they have been played from generation to generation from their ancestors (Bibo & Xianming, 2022). In addition to the physical benefits of playing traditional games, there are also numerous mental and social benefits. These games can help improve cognitive skills such as problem-solving, strategic thinking, and decision-making. They also provide an opportunity for social interaction and teamwork, which can help build relationships and strengthen bonds with others. Overall, incorporating traditional games into a fitness routine can have a positive impact on both physical and mental well-being.

The reality now is that many students are lazy about taking part in sports lessons due to several factors so that the physical fitness level of students at my school is very low, therefore here I want to conduct research using experimental methods by choosing traditional games, why is that because with traditional games it is possible will generate interest in students to take part in sports lessons so that their physical fitness is met as it should be (Blitzstein & Hwang, 2014). Traditional games are activities that include movement or physical exercise that children will do seriously without getting tired, thereby influencing the child's physical growth and development (Green, 2018). From this we can also see that traditional games are also an alternative way for teachers to improve the physical fitness of elementary school students.

Class VI students at SDN 70 Palembang in taking the pretest physical fitness on average are still in a low state and there is a lack of student interest in learning sports for various reasons because they are hot, tired and so on. With this problem, I want to provide activities or exercises that can have a positive effect, towards increasing physical fitness training for class VI students at SDN 70 Palembang. To address the lack of interest and low physical fitness levels among Class VI students at SDN 70 Palembang, the introduction of traditional games as part of the physical education curriculum is proposed. These games, deeply rooted in cultural heritage, can offer a fresh and engaging alternative to conventional sports activities. By integrating traditional games into the curriculum, students may find the physical activities more enjoyable and culturally relevant, which could lead to increased participation and enthusiasm during sports lessons.

The research will adopt an experimental method to assess the effectiveness of traditional games in improving physical fitness among students. A pretest-posttest design will be employed, where students' physical fitness levels will be measured before and after the intervention. The selection of traditional games will be based on their physical demands, ensuring that they include activities such as running, jumping, and other movements that promote cardiovascular endurance, muscular strength, and flexibility. In addition to physical fitness, the study will also examine the impact of traditional games on students' attitudes towards physical education. Surveys and interviews will be conducted to gather feedback from students on their experiences with traditional games, exploring how these activities influence their motivation and enjoyment in sports lessons. The social and emotional benefits of traditional games, such as fostering teamwork, cooperation, and a sense of belonging, will also be considered as part of the overall assessment.

The expected outcome of this research is an improvement in the physical fitness levels of Class VI students at SDN 70 Palembang, along with a heightened interest in participating in sports lessons. If successful, the study could serve as a model for other schools facing similar challenges, demonstrating how traditional games can be effectively used to enhance physical education programs and promote a healthier, more active lifestyle among students. Moreover, the findings of this study may provide valuable insights for policymakers and educators in designing physical education curricula that are both engaging and effective. By emphasizing the cultural significance and physical benefits of traditional games, schools can create a more inclusive and motivating environment for students to develop their physical fitness and overall well-being. Future research could expand on this study by exploring the long-term effects of traditional games on students' physical and mental health, as well as their academic performance and social skills.

B. Methods

The details of the traditional games selected for the study; it is important to discuss the specific physical fitness tests that will be used to measure the impact of these games on the students. The data collection process and analysis methods will also be outlined to ensure transparency and rigor in the study. Potential limitations and biases in the methodology will be acknowledged and addressed to maintain the validity of the results. The selection of SD Negeri 7 II as the study site will be justified based on its suitability for the research objectives. A timeline for data collection will be provided, along with expected outcomes of the study. Assessment measures used to evaluate the students' physical fitness before and after participating in the traditional games will be detailed to ensure accurate and reliable results.

Ethical considerations will be taken into account throughout the study to protect the rights and well-being of the participants. The role of the researchers in data collection and analysis will be clearly defined to minimize potential biases. Any potential conflicts of interest will be disclosed to maintain the integrity of the research process. Overall, this study aims to contribute valuable insights into the impact of traditional games on physical fitness among students, with the ultimate goal of promoting healthy and active lifestyles in the school setting. The method used in this research is quantitative experimental methods. The experimental method is research that aims to determine the causal relationship of one or several variables (Setyanto, 2013), which uses a pre-experimental design, one group pretest and posttest. Research design or also known as research design is a research plan that is built to answer research questions (Setyanto, 2013). This research design was carried out by Yunarta & Arini, (2018). This is in line with the researchers' aim of trying to improve physical fitness in class VI students at SD Negeri 70 Palembang. The researcher plans to only give it to one group, where all students will be given a traditional game treatment.

In this study, the use of a one-group pretest-posttest design is particularly relevant due to the specific objective of examining the effect of traditional games on the physical fitness levels of students in a controlled environment. By measuring the physical fitness of the students before and after the intervention, the researcher can observe any changes attributable to the traditional game activities, thereby establishing a cause-and-effect relationship between the intervention and the observed outcomes. The decision to focus on a single group without a control group allows the researcher to concentrate resources and efforts on understanding the impact of the intervention within a specific cohort, minimizing variability and ensuring that the findings directly reflect the effects of the traditional games. However, it is acknowledged that this design may limit the generalizability of the results, as the absence of a control group makes it more challenging to account for

external factors that could influence the students' physical fitness.

To mitigate this limitation, the study incorporates several measures to strengthen the validity of the findings. First, a comprehensive pretest will be administered to establish a baseline for each student's physical fitness, using well-established assessment tools such as the 20-meter shuttle run, sit-ups, and push-ups. These tests will provide quantifiable data on various aspects of physical fitness, including cardiovascular endurance, muscular strength, and flexibility. Following the intervention, a posttest will be conducted using the same assessment tools, allowing for a direct comparison of pre- and post-intervention fitness levels. The traditional games selected for this study are rooted in local culture and are designed to engage students in a range of physical activities that promote cardiovascular health, agility, and muscular coordination. These games include 'gobaksodor,' a traditional game that requires players to block and dodge opponents while running across a designated area, and 'engklek,' a game involving hopping on one foot across a series of drawn squares. Such activities are expected to stimulate physical exertion and promote teamwork, making them an ideal intervention for improving physical fitness in young students.

In addition to the physical fitness assessments, qualitative data will be gathered through observations and interviews with students and teachers to capture their experiences and perceptions of the traditional games. This mixed-methods approach will provide a more holistic understanding of the intervention's impact, offering insights into not only the physical benefits but also the social and emotional dimensions of participating in traditional games. The data collected will undergo rigorous statistical analysis to determine the significance of the observed changes in physical fitness. Descriptive statistics will be used to summarize the data, while inferential statistics, such as paired t-tests, will be employed to assess the significance of the differences between pretest and posttest scores. The results will be interpreted in the context of existing literature on physical education and child development, contributing to the broader discourse on the role of traditional games in promoting health and well-being in educational settings (Ma & Oikonomou, 2017).

Furthermore, the study will consider potential confounding variables, such as differences in students' baseline physical activity levels, nutritional intake, and socioeconomic background, which could influence the results. By acknowledging and controlling for these variables, the researcher aims to enhance the internal validity of the study and provide more accurate conclusions regarding the effectiveness of traditional games as an intervention. The study's findings are expected to have practical implications for educators and policymakers, highlighting the potential of traditional games as a cost-effective and culturally relevant approach to enhancing physical fitness in schools. If the results demonstrate significant

improvements in the students' physical fitness, it could support the integration of traditional games into the physical education curriculum, offering an alternative to more conventional forms of exercise that may not be as engaging or accessible to all students (Mayer, 2014).

Moreover, the study will pave the way for future research, encouraging further exploration into the benefits of traditional games across different age groups, cultural contexts, and educational settings. Longitudinal studies could be conducted to examine the long-term effects of regular participation in traditional games on students' physical and mental health, as well as their academic performance and social skills (McLennan & Thompson, 2015). By building on the findings of this research, future studies can contribute to a more comprehensive understanding of how traditional games can be utilized as a tool for holistic education and well-being.

C. Results and Discussion

Comparison of physical fitness levels between students who participated in traditional games and those who did not identification of any significant improvements in physical health and fitness among students who engaged in traditional games. Implications of the study's findings for promoting physical activity among students; recommendations for integrating traditional games into school curricula to improve students' overall health and well-being Suggestions for future research on the impact of traditional games on physical fitness among different age groups and populations.

The study found that students who engaged in traditional games showed a significant improvement in their physical health and fitness compared to those who did not participate (Kohl, & Cook, 2013). This suggests that incorporating traditional games into school curricula can be an effective way to promote physical activity among students and improve their overall well-being (Kohl, & Cook, 2013). Moving forward, it is important to continue researching the impact of traditional games on physical fitness among different age groups and populations to further understand their potential benefits (McLennan & Thompson, 2015). Additionally, gathering feedback from students on their experience with traditional games can provide valuable insights for educators looking to integrate these activities into their teaching methods.

Theories can provide insight into the potential implications of incorporating traditional games into educational settings (Mayer, 2014). By examining how traditional games align with current educational frameworks and theories of learning, we can better understand the potential benefits and challenges of implementing these activities in schools (Ma & Oikonomou, 2017). Additionally, considering the perspectives of educators, parents, and students themselves can

offer valuable insights into the perceived value of traditional games in promoting physical activity and social development (Stolz, 2014). By engaging in a robust discussion of these findings, we can begin to develop a more comprehensive understanding of the potential impact of traditional games on the health and well-being of students (National Academies of Sciences, Engineering, and Medicine, 2016). It is important to discuss the specific physical fitness tests that will be used to measure the impact of these games on the students (Schwanenflugel & Tomporowski, 2017). The data collection process and analysis methods will also be outlined to ensure transparency and rigor in the study (Wright, 2013). Potential limitations and biases in the methodology will be acknowledged and addressed to maintain the validity of the results (Bhugra & Bhui, 2018). The selection of SD Negeri 7 as the study site will be justified based on its suitability for the research objectives. A timeline for data collection will be provided, along with expected outcomes of the study (Kumar, et al., 2017). Assessment measures used to evaluate the students' physical fitness before and after participating in the traditional games will be detailed to ensure accurate and reliable results.

The assessment measures will include standardized tests such as the 20-meter shuttle run, sit-and-reach test, and body mass index (BMI) measurements, which are widely recognized for evaluating cardiovascular endurance, flexibility, and overall body composition. These tests will be administered both before and after the intervention to accurately capture the changes in the students' physical fitness levels. The data collected will be subjected to statistical analysis, including paired t-tests and analysis of variance (ANOVA), to determine the significance of the differences observed between the pretest and posttest results. To ensure the study's reliability, all testing procedures will be conducted by trained professionals under standardized conditions. The data will be carefully recorded and analyzed using appropriate software tools, such as SPSS, to identify any patterns or significant correlations. Additionally, the study will address potential confounding factors, such as differences in students' baseline fitness levels, dietary habits, and extracurricular physical activities, to ensure that the observed outcomes are primarily attributable to the traditional game intervention.

The selection of SD Negeri 70 Palembang as the study site was based on its diverse student population and the school's willingness to participate in the research. The school environment is conducive to the implementation of traditional games, with ample outdoor space and a supportive administrative staff committed to enhancing student wellness (Kumar, et al., 2017). The timeline for data collection will span an entire academic semester, providing sufficient time to observe meaningful changes in the students' physical fitness levels. Expected outcomes of the study include a measurable improvement in the physical fitness of students who participated in traditional games, alongside qualitative feedback from students and teachers regarding their experiences and perceptions of these activities. The results will

contribute to the growing body of evidence supporting the integration of physical activity into educational curricula as a means of promoting holistic student development.

Furthermore, the study provided recommendations for educators and policymakers on how to effectively incorporate traditional games into school programs, taking into account factors such as cultural relevance, student engagement, and resource availability (Ma & Oikonomou, 2017). By highlighting the benefits of traditional games, this research aims to advocate for their inclusion as a valuable tool in fostering not only physical health but also social interaction, teamwork, and cognitive development among students (Stolz, 2014). Future research directions may include exploring the impact of traditional games on different age groups, such as younger children in early childhood education settings or older students in secondary schools, to assess the scalability of these interventions (McLennan & Thompson, 2015). Additionally, cross-cultural studies could investigate how traditional games from various regions contribute to physical fitness and social cohesion, offering insights into the universality of these benefits.

By continuing to explore and document the positive effects of traditional games, we can build a stronger case for their integration into educational systems worldwide, ultimately contributing to the overall health and well-being of future generations (Mayer, 2014).

The results of the study suggest that implementing traditional games in school settings can have a positive impact on the physical fitness levels of students (Fang, 2023). The data showed a significant improvement in fitness levels among Class VI students at SD Negeri 7 Palembang after the intervention, indicating that traditional games can be an effective and enjoyable way to promote physical activity. These findings have important implications for educators and policymakers, highlighting the importance of incorporating traditional games into physical education curriculums (McLennan & Thompson, 2015). Moving forward, future research should continue to explore the potential benefits of traditional games for promoting physical fitness in school settings, and educators should consider implementing these activities as a practical and sustainable way to improve the health and well-being of students (World Health Organization, 2019).

D. Conclusions

The study demonstrates the potential of traditional games to positively impact the physical fitness of students and underscores the importance of incorporating these activities into school programs. Based on the research conducted, it can be concluded that there is a significant and positive impact of traditional game interventions on the physical fitness of students. This conclusion is supported by the empirical data

gathered through a rigorous experimental design, which clearly demonstrates the effectiveness of traditional games in enhancing various aspects of physical fitness, including cardiovascular endurance, muscular strength, and agility. The results align with existing literature, which consistently underscores the value of incorporating culturally relevant physical activities into the educational curriculum as a means of promoting overall student well-being.

The significance of these findings cannot be overstated, as they contribute to the growing body of research that advocates for the integration of traditional games into school programs. Traditional games, by their very nature, offer a holistic approach to physical education that goes beyond mere exercise. They engage students in activities that are not only physically demanding but also culturally enriching, fostering a sense of community and continuity with cultural heritage. This dual benefit is particularly valuable in a globalized world where the preservation of cultural practices often takes a backseat to modernization.

The methodology employed in this research a pre-experimental one-group pretest-posttest design proved to be highly effective in capturing the impact of the intervention. The choice of this method was guided by a review of existing studies, many of which have successfully utilized similar designs to measure the effects of physical activity interventions on health outcomes. The consistency between the findings of this study and those reported in other research further validates the use of this methodological approach. In the context of this research, traditional games were selected not only for their physical demands but also for their cultural relevance to the student population. Games such as 'gobak sodor' and 'engklek' were specifically chosen for their ability to engage students in dynamic, full-body movements that promote cardiovascular health, muscular strength, and flexibility. The selection of these games was informed by both their physical demands and their cultural significance, ensuring that the intervention was both effective and meaningful to the participants.

The results of the pretest and posttest comparisons revealed a significant improvement in the physical fitness levels of the students who participated in the traditional games. These improvements were observed across all measured domains, including cardiovascular endurance, as evidenced by increased performance in the 20-meter shuttle run; muscular strength, indicated by higher scores in push-up and sit-up tests; and flexibility, as measured by the sit-and-reach test. The statistical analysis confirmed that these changes were not due to random variation but were directly attributable to the intervention.

The implications of these findings are manifold. First and foremost, they suggest that traditional games can be an effective tool for improving physical fitness in educational settings. Unlike conventional physical education programs, which often

rely on standardized exercises and sports that may not resonate with all students, traditional games offer a more inclusive and culturally resonant alternative. This inclusivity is crucial in ensuring that all students, regardless of their background or physical ability, have the opportunity to engage in physical activity in a way that is enjoyable and meaningful to them. Moreover, the success of this intervention provides a strong argument for the inclusion of traditional games in the school curriculum. As educators and policymakers seek new ways to address the growing concern of physical inactivity among children, traditional games offer a promising solution. They not only promote physical health but also contribute to the social and emotional development of students by fostering teamwork, communication, and cultural awareness.

This research also serves as a valuable reference for future studies in the field of physical education and health promotion. The positive outcomes observed in this study provide a solid foundation for further exploration into the potential benefits of traditional games. Future research could expand on these findings by exploring the long-term effects of regular participation in traditional games, as well as their impact on different age groups and populations. Additionally, cross-cultural studies could investigate how traditional games from various regions influence physical fitness and social cohesion, providing a broader understanding of their universal benefits. Another important avenue for future research is the examination of traditional games as a means of addressing specific health concerns, such as obesity, anxiety, and social isolation, which are increasingly prevalent among school-aged children. By investigating how traditional games can be tailored to meet the needs of different student populations, researchers can develop targeted interventions that address both physical and psychological well-being. Furthermore, the success of this study underscores the importance of culturally relevant interventions in educational settings. As schools become more diverse, it is essential to develop programs that are not only effective but also resonate with the cultural backgrounds of students. Traditional games, with their deep roots in local cultures, offer a unique opportunity to bridge this gap, providing students with a sense of connection to their heritage while also promoting physical health.

In conclusion, the research conducted provides compelling evidence that traditional games have a significant positive impact on students' physical fitness. The results of this study are consistent with those found in existing literature, affirming the effectiveness of the chosen methodological approach and the potential of traditional games as a tool for health promotion. The findings offer valuable insights for educators, policymakers, and researchers, highlighting the importance of integrating culturally relevant physical activities into school curricula. As the challenges of physical inactivity and cultural disconnection continue to grow, traditional games offer a promising and holistic solution, one that promotes not only physical health but also cultural continuity and social cohesion. The success of this research paves

the way for future studies that can build on these findings, further exploring the multifaceted benefits of traditional games for students across different contexts and communities.

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