

Implementation of Modified Learning of Ball Relay Game on Children's Physical Fitness at SLB - A

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A. Conception and design of the study; **B.** Acquisition of data;
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ABSTRACT

This study aims to determine whether there is an influence between game modifications on improving the physical fitness of students at SLB Tunanetra. This study is a descriptive qualitative type that will explain the research questions. The data collection technique used in this study was carried out using observation and interviews with students and teachers at SLB-C Cimalaka Sumedang and also concluding previous articles and journals. The results that can be presented in this study are the indirect influence of game modifications on physical fitness.

Keywords : Learning; Modification; Games; Ball Relay; Physical Fitness.

INTRODUCTION

Physical activity refers to any form of body movement that uses up energy, such as walking, running, swimming, or exercising. Many benefits of physical activity can support our health and smoothness in our daily activities, such as improving heart health by increasing blood circulation and strengthening the heart. Physical activity can also regulate weight, improve bone and muscle health, and so on. Therefore, doing physical activity regularly is very important to maintain overall physical and mental health. According to the World Health Organization (WHO) quoted by Zahra et al., 2023 in "Game-Based Physical Activity Model for the Visually Disabled" lack of physical activity is an independent risk factor for chronic diseases and overall is estimated to cause death globally. We know that physical activity can keep us away from various diseases and what is most known by many people is that physical activity can regulate weight with an activity program that is tailored to our needs.

Games are physical activities that are carried out for entertainment, fun or learning purposes that usually have certain rules and structures. Games involve participants interacting in a structured manner to win, points or certain goals. Games can also be played individually or in groups involving various types of physical activities and provoking the

creativity of participants. In addition to being used as recreation, games can also have educational value by teaching or training motor skills, strategies or certain concepts to participants.

Games can be played by various groups of people, from children to adults, including those who have physical disabilities such as the blind. A blind person is someone who for some reason experiences a visual disorder or a vision condition that does not function properly. Blind people are divided into 2 categories, namely "Low vision" and "Total blind" (World Health Organization). Blind people use touch and hearing sensors as the main channels to carry out daily activities such as studying.

People with visual impairments have challenges in living their daily lives including in physical activities or sports. Limited vision makes it difficult for people with visual impairments to participate in any activity. Lack of knowledge about how to participate in physical activities is the biggest challenge for those with visual impairments.

Using modifications to games or physical activities, it is hoped that this can be a solution for blind people to carry out physical activities and also overcome the boredom or satiety they feel.

METHODS

This study uses a qualitative method with a descriptive approach. The descriptive approach aims to describe and analyze in depth the implementation of learning modification of ball relay games on the physical fitness of children with disabilities with visual impairments. The population in this study were special elementary schools located in Sumedang Regency, with a total of 16 special elementary schools in Sumedang Regency. The data collection technique used in this study was observation, carried out to directly observe the learning process of modifying the ball relay game and how it affects the physical fitness of children with disabilities with visual impairments. The two interviews were conducted with physical education teachers, blind SLB students, and parents of students to obtain more in-depth information about the implementation of learning modification of the ball relay game and its effect on children's physical fitness. Furthermore, documentation was carried out to collect data in the form of learning documents, photos, and videos related to the study. The instruments developed consisted of an implementation guide and an observation sheet. The implementation guide contains the steps for implementing the modified ball relay game, including an explanation of the game modification, the equipment needed, and the assessment method. The observation sheet contains assessment indicators to measure the physical fitness of children with visual impairments. Data analysis in this study was carried out descriptively and qualitatively using qualitative data analysis techniques.

Data Sources

The data sources in this study are:

- Primary data: obtained through observation, interviews, and documentation.
- Secondary data: obtained from books, journals, and other reliable sources related to learning modification of ball relay games and children's physical fitness at SLB for the Blind.

Data Collection Techniques

The data collection techniques used in this study are:

Observation: conducted to directly observe the learning process of modifying the ball relay game and how it affects the physical fitness of children at SLB for the Blind.

Interviews: conducted with physical education teachers, SLB for the Blind students, and parents of students to obtain more in-depth information about the implementation of learning modification of the ball relay game and its effects on children's physical fitness.

Documentation: conducted to collect data in the form of learning documents, photos, and videos related to the study.

Journals and articles: concluding previous journals and articles.

Data analysis in this study was conducted descriptively and qualitatively using the Miles and Huberman model of qualitative data analysis techniques, which include:

Data reduction: reducing data obtained from observation, interviews, and documentation.

Data display: presenting reduced data in the form of tables, graphs, or textual descriptions.

Conclusion drawing/verification: drawing conclusions from the data that has been presented.

Research Success

This study is said to be successful if:

The data obtained is complete and valid.

Data analysis produces accurate and accountable findings.

The conclusion of the study can answer the formulation of the problem proposed.

Research Ethics

This research will be conducted by paying attention to research ethics, including:

Respecting the rights of respondents.

Maintaining the confidentiality of respondent data.

Ensuring that the research does not endanger respondents.

RESULTS AND DISCUSSION

Result

Modification of the ball relay game for children with special needs is needed to overcome boredom and also to motivate children to do physical activities to maintain physical fitness in abnormal conditions (special needs).

A study conducted by (Ardiyansyah, 2016), explains the results of the Pre-test and Post-Test data obtained on 9 mild mentally retarded students at SLB Merdeka, Sidoarjo Regency, which shows that the modification of the relay game can improve the basic movement activities of ABK which are described as follows:

Table 1.

Pre-Test Results

Pre-test data results	
Average	50,56
Standard Deviation	6,93
Variance	48,09

Table 2.

Post-Test Results

Post-test data results	
Average	73,89
Standard Deviation	11,26
Variance	126,74

Then, a study conducted by Natas Pasaribu & Daulay in 2018 showed that there was an influence of relay games on students' basic motor skills in Tangerang Regency which was strengthened by a study conducted by Rusman et al., 2018 in "The Effect Of Modified Relay Run Games On Improving Basic Locomotive Movements For Children With Mental Disabilities Class I At Sdlb N Kedung Kandang, Malang City" which stated that with the modification of the relay game, it can improve basic running and jumping motor skills in children with special needs with a pre-test value of 2.33 and a post-test value of 3.12. A study was also conducted by (Nugroho et al., 2024) in "Improving Physical Fitness Through Relay Race Games for Grade VI Students at SDN Tanah Kali Kedinding" which showed an increase in the results of the bleep-test measurements carried out to measure the level of physical fitness as explained in the following table:

Table 3.
 Pre-test and Post-test Results (Bleep-Test)

Results	Category	Man	%	Woman	%
Pre-Test	Good	3	12.50%	1	12.50%
	Medium	11	78.50%	2	25%
	Poor	0	0%	5	62.50%
Post-Test	Good	4	28%	5	37.50%
	Medium	8	57%	3	62.50%
	Poor	2	15%	0	0%

From the table, it can be seen that for male students there was an increase in the very good category from 0% to 28%, the good category from 12.5% to 57%, and students who got the moderate category decreased from 78.5% to only 15%. Then for female students, there was an increase in the very good category from 0% to 37.5%, the good category from 25% to 62.5%, and students who got the moderate category decreased from 62.5% to 0%.

In a study conducted by Nugroho et al. (2024), it was also explained that there was a difference in children's motivation to participate in physical education and health learning after following the treatment carried out by researchers by modifying the relay race game. This was shown in the t-test results, where there was a calculated t value greater than the t table ($8,093 > 1.664$) with a significance level of 0.05.

Discussion

From several studies that have been explained, several important points can help explain the effect of ball relay game modifications on physical fitness starting from student motivation as explained by Zulfasari. R. This is also reinforced by the opinion of a teacher at SLB Cimalaka who also stated that the modification of games in physical education learning at school, increases student motivation in learning. He explained that with the modification, students at school become happier to follow learning and are more active in moving because it is considered more fun. This is due to the modification that supports students to be able to enjoy learning even with the special needs they have.

"With the modification of the game that makes learning easier and more enjoyable to follow, students become more active in movement activities." Said the teacher concerned. From the observations made, it was also found that students seemed happier in learning and were not very quiet.

A study conducted by Showab & Djawa, 2019, stated that there was a 66.7% increase in children's motivation or joy when participating in learning with game modifications carried

out by a teacher (Pène & Touitou, 2009). Explained that motivation will influence someone in carrying out sports activities so that it will also affect the improvement of a person's physical fitness.

Judging from the results presented in Tables 1, 2 and 3, game modifications have a significant effect on physical fitness. As explained by Ardiansyah. et al. in 2016 where game modifications can increase children's motivation to participate in learning, this is also reinforced by (Idham et al., 2022) which states that there is a direct influence between motivation and students' PJOK learning outcomes.

CONCLUSION

From the results of the analysis of observation data and previous research on the implementation of game modifications and their effects on student's physical fitness, it can be concluded that there is an indirect effect between game modifications and students' physical fitness. This indirect effect can be explained by the effect between game modifications and students' motivation to participate in learning which will lead to increased physical fitness.

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