

The Effect of Obstacle Games on Gross Motoric Ability of Class V Elementary School Students

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Abstract

This study aims to determine the effect of obstacle course games on gross motor skills of fifth grade students at SDN 2 Court. This type of research uses quantitative with quasi-experimental methods with Nonequivalent Control Group Design. The population in this study were all fifth grade students at SDN 2 Court with a sample of 42 students. Data analysis techniques using observation, interviews, and tests. The assessment instrument used was a test of motor skills. Data analysis using independent sample t-test. Based on the results of the study, that from the difference in the average pretest and posttest results in the experimental class and the control class. In the experimental class, the pretest average was 5.0000 and the average value after being given treatment was 5.7727 while in the control class the average value (pretest) was 5.0000 and the posttest average value was 4.8500. Hypothesis testing was carried out using the independent sample t-test, obtaining a sig (2-tailed) value of 0.000 < 0.05 in accordance with the decision-making principles, it can be concluded that Ho is rejected and Ha is accepted, which means that obstacle course games have a significant effect on the ability students' gross motor movements and is also effectively used for elementary school students in class V SDN 2 Court.

Keywords: Obstacle Game, Gross Motor, Movement Ability



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INTRODUCTION

Physical education is an educational process through physical activity designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active living, sportsmanship, and also emotional intelligence. Law No. 3 of 2005 National Sports System "Every citizen has the same right to carry out sports activities, obtain services in sports activities, choose and participate in types and sports according to their talents and interests, receive direction, support, guidance, coaching and development in sports. sport".

The learning environment is carefully regulated to enhance the growth and development of all domains, physical, psychomotor, cognitive, and affective for each student. Physical activity is a tool for achieving education. Not only to develop physical fitness, but simply that physical education is a process of learning to move and learning through movement. Every teacher needs to understand the scope of physical education, because understanding the scope of physical education can develop the psychomotor aspects that exist in students. In addition to understanding its scope, every teacher in carrying out physical education in schools must use the right learning process according to the conditions of students and student characteristics.

If the physical education learning process is carried out with sports activities such as football, volleyball and so on, students will feel bored and do not experience comfort and pleasure in carrying out these sports activities so that the resulting movements are less than optimal. From the optimal movement results will affect the gross motor skills of students. If the student's gross motor skills are good, it means that the student is serious about participating in

the physical education learning process at school. According to Hurlock in Endang Rini (2007: 14) motor development is the development of controlling physical movement through coordinated activities of the nerve center, nerves and muscles. An important aspect of development to develop is gross motor skills. This gross motor skills spur the child's ability to move with the big muscles, such as locomotor, non-locomotor, and manipulative (Endang Rini, 2007: 68). To improve gross motor skills in students, stimulation and stimulation are needed so that they can carry out the activities planned by the teacher, namely with obstacle course games. Through the stimulation provided, the child will be interested and do it happily and confidently.

This obstacle course game is intended to add variety to physical education learning so that students don't feel bored, so that students still feel happy moving, and the level of students' motor skills is getting better. According to Mochammad Djuminar (2004: 38) obstacle course is a physical activity in the form of running or running through obstacles. This obstacle course game consists of 5 obstacle posts that must be passed by students with varying levels of difficulty and using simple tools. Obstacle playing activities will encourage children's needs to actively interact and engage with their physical environment. By using this obstacle course game, the teacher also hopes that students can also play this game outside of physical education hours. so that the motor skills of students are maintained because they often move. Different motor skills play different roles in adjusting the child's personal social. For example, according to Elizabeth B. Hurlock (2009: 162) skills function to help children gain independence, while others function to gain acceptance. Because it will not be possible for children to acquire motor skills simultaneously, children will also focus their attention on learning skills that help to acquire forms of adjustment. As a child goes through the elementary school years, the child gains more control over his body, and is also able to sit and pay attention for long periods of time. Nonetheless, elementary school students are far from being physically mature, and must remain active. Physical action is very important for children to improve their developing children's skills. Elementary school children should be more involved in active activities than passive ones, John W. Santrock (2007: 214).

The findings in the field based on the experience of the physical education teacher and researchers' observations during PLP, there were some students whose gross motor skills were still not optimal. This can be seen from motor skills such as running while jumping without falling, zig-zag running, throwing and catching a ball. Students are still unsure when carrying out these movements so that students' motor skills need to be stimulated optimally by using games that use gross motor skills so that their motor skills can develop properly. Therefore to improve students' gross motor skills, it is expected that physical education teachers at SD Negeri 2 The Tawang District Court, Tasikmalaya City chose an obstacle course game to stimulate students to move. Based on the results of interviews with Public Elementary School 2 Court Physical Education Teachers, At this school, they once conducted an obstacle course game in the physical education learning process for students. In implementing the obstacle course game there are several obstacles including students who have large and small bodies (malnourishment) so that these students feel insecure to do so and inadequate infrastructure. Apart from that, the Court 2 Public Elementary School in physical education has never measured the motoric abilities of students through an obstacle course game. With this in mind, the use of obstacle games is the right choice according to the author's assumption because it is in accordance with the characteristics of fifth grade students to improve gross motor skills.

RESEARCH METHODS

This study uses a type of quantitative experimental research, with a quasi-experimental method. The design used in this study is the nonequivalent control group design. This design involved two groups of subjects, one was given experimental treatment (experimental class)

and the control class was treated with conventional methods. The population in this study were all fifth grade students at SDN 2 Court with a sample of 42 students. To determine the experimental class and control class, namely by using simple random sampling technique. In the experimental class there were 22 students and in the control class there were 20 students.

Data collection techniques are using observation, interviews, and practice tests. The instrument used is a test of gross motor skills in order to determine the level of motor skills of elementary school students. In the experimental class which was given the game treatment and the control class which was given conventional treatment. To analyze the data in this study, namely the normality test, homogeneity test and hypothesis testing using the independent sample t-test.

RESEARCH RESULTS AND DISCUSSION

Results of Data Analysis

Normality test

The normality test aims to find out whether the data obtained from the research results is normally distributed or not. The normality test used in this study is the Kolmogorov Smirnov test with the help of SPSS 26. The criteria for a data that can be said to be normally distributed are as follows:

1. If the significance value (sig) < 0.05, then the data is not normally distributed.
2. If the significance value (sig) > 0.05, then the data is normally distributed.

The pretest-posttest normality test in the experimental class and control class is as follows:

Table 1. Normal Test of Motor Ability Test Pretest

Motor Ability Test Results			
Class	Kolmogorov-Smirnova		
	Statistics	df	Sig.
<i>pretest</i> experiment	.169	22	.101
<i>pretest</i> control	.173	20	.120

Based on the table above it is known that the experimental class has a significance level of 0.101 and the control class has a significance level of 0.120 where the significance level in the two classes has a value greater than 0.05 so it can be concluded that both pretest data in the experimental class and control class are normally distributed because $0.101 > 0.05$ and $0.120 > 0.05$. The posttest normality test results in the experimental class and control class are as follows:

Table 2. Posttest Motor Ability Test Normality Test

Motor Ability Test Results			
Class	Kolmogorov-Smirnova		
	Statistics	df	Sig.
<i>posttest</i> experiment	.160	22	.145
<i>posttest</i> control	.192	20	052

From the table above it can be seen that the experimental class and the control class have a significance level that is greater than 0.05 where in the experimental class the significance is 0.145 ($0.145 > 0.05$) while in the control class the significance is 0.052 ($0.052 > 0.05$) so that it can be concluded that both posttest data in the experimental class and control class are normally distributed.

Homogeneity Test

Homogeneity test is used to determine whether the variance of the samples taken is homogeneous or not. In this study the homogeneity test was carried out using the Lavene Statistical test using SPSS version 26 software with the following decision criteria:

1. If the significance value based on the mean is greater than 0.05 (Sig > 0.05) then the data is homogeneous.
2. If the significance value based on the mean is less than 0.05 (Sig < 0.05) then the data is not homogeneous.

The results of the pretest homogeneity test can be seen in table 3.

Table 3. Pretest Homogeneity Test Results

Test of Homogeneity of Variance					
		Levene Statistics	df1	df2	Sig.
<i>Pretest</i>	Based on Means	001	1	40	.971

The homogeneity test results above show that the significance value of the pretest data in this study is 0.971, meaning that the pretest significance value is > 0.05 (0.971 > 0.05). So it can be concluded that the variance of students' gross motor skills in the pretest is greater than 0.05. So it can be concluded that the data is homogeneous.

Table 4. Posttest Homogeneity Test Results

Test of Homogeneity of Variance					
		Levene Statistics	df1	df2	Sig.
<i>Posttest</i>	Based on Means	.653	1	40	.424

The homogeneity test results above show that the significance value of the posttest data in this study is 0.424, meaning that the posttest significance value is > 0.05 (0.424 > 0.05). So it can be concluded that the variance of gross motor skills in the posttest is greater than 0.05. So it can be concluded that the data is homogeneous.

Hypothesis Testing

Based on the results of processing the normality test data and homogeneity test that has been carried out, it is concluded that the data is normally distributed and homogeneous, then it is continued with the parametric hypothesis test with the t-test method. This hypothesis test was conducted to find out the difference in the average test results for students' gross motor skills. This hypothesis test is assisted by SPSS version 26 with the following hypothesis formulation:

Ho = Obstacle games have no significant effect on students' gross motor skills.

Ha = Obstacle games have a significant effect on students' gross motor skills.

The results of the hypothesis test can be seen in table 5.

Table 5. Hypothesis Test Results

Motor Ability Test Results	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Differences	std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal Variances Assumed	10,464	002	5,455	40	.000	2023	.371	1,273	2,772
Equal Variances Not Assumed			5,606	32,621	.000	2023	.361	1,288	2,757

Based on the table above, calculations on the difference test mean gross motor skills test scores can be assessed by the decision rule if the significance value or sig (2-tailed) > 0.05 then H_0 is accepted and H_a is rejected. Meanwhile, if the sig (2-tailed) value < 0.05 then H_0 is rejected and H_a is accepted. From the table of independent samples test results obtained a sig (2-tailed) value of $0.000 < 0.05$ according to the decision-making rules, it can be concluded that H_0 is rejected and H_a is accepted, which means that obstacle course games have a significant effect on gross motor skills.

Discussion

This research was conducted on fifth grade students at SD Negeri 2 Court for the academic year 2022/2023 as many as 42 students who were then divided into two classes, namely the experimental class and the control class. The division of students is based on the origin of the student class. The difference lies in the treatment carried out by researchers. Students in the experimental class received treatment using an obstacle course game. Whereas in the control class the researchers gave conventional treatment and games that they usually do at school. This research was conducted with the aim of knowing the effect of obstacle course games on gross motor skills of fifth grade students at SD Negeri 2 Court.

The research began by asking permission from the principal of SD Negeri 2 the Court. After that interviewed the physical education teacher about the problems in the teaching and learning process. After the problem is found, the researcher looks for a solution to the problem by using an obstacle course game as a solution to the problem. Students are expected to be able to actively participate and the level of student confidence will be much better. Next is to collect research data using a test instrument, namely a motoric ability test in the form of a practical test.

The research carried out for 2 weeks with 8 meetings. For the first meeting, a pretest was carried out, with the aim of knowing the students' motor skills before being given treatment. The pretest was carried out by giving a motor ability test with 12 tests. The test was given to 42 students, namely 22 students in the experimental class and 20 students in the control class. The pretest will be held on June 13, 2023 in the experimental class and control class. From the results of this pretest, the results were obtained in the experimental class with the lowest score of 2 categories less than once by 1 student and the highest score of 8 by 1 student in the good category while in the control class the lowest score was 3 categories less by 3 students and the highest score was 7 by the good category by 3 student. The average value of the experimental class pretest results is 5.0000, while in the control class an average of 5.0000 was obtained. Furthermore, the 2nd, 3rd, 4th, 5th, 6th, and 7th meetings were treated using obstacle course games for the experimental class and conventional learning for the control class.

Finally, students are given a posttest with the aim of knowing the results of students' motor skills after being given treatment. Posttest is done by giving tests as in the pretest as many as 12 tests. In the experimental class and control class it was held on June 21, 2023. From the results of the posttest in the experimental class, the lowest score was 1 student in 3 poor categories and the highest score was 8 good categories, 3 students. While in the control class with the lowest score of 3 in the less category were 3 students and the highest score was 7 in the good category with 3 students. The average value of the experimental class was 5.7727, while in the control class it was obtained an average of 4.8500, so that the average posttest value of the experimental class was $5.7727 > 4.8500$.

Obstacle games have a positive effect on improving children's gross motor skills. Based on the field, the obstacle course game gives a different impression. With obstacle course games students can be confident in their abilities. This obstacle course game can be used as a game to improve students' motor skills. After conducting research and testing the results, there were

differences in the results of students' motor skills between the control class and the experimental class. This can be seen from the results of the pretest and posttest in the control and experimental classes. In the experimental class, the pretest average was 5.0000, while in the control class, the pretest average was 5.0000. what is the average posttest score in the experimental class 5.

CONCLUSION

Based on the research results, the average value of students in the experimental class before being given treatment (pretest) was 5.0000 and the average value after being given treatment was 5.7727 while in the control class the average value (pretest) was 5.0000 and the average value - average posttest of 4.8500. And based on the results obtained from the independent sample t-test results obtained a sig (2-tailed) value of 0.000 < 0.05 in accordance with the decision-making rules, it can be concluded that H_0 is rejected and H_a is accepted, which means that the obstacle game has a significant effect on students' gross motor skills.

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