

The Effect of Development of Modification of Basketball on The Process And Learning Outcomes of Physical, Sport and Health Education of Students In Class X SMA Negeri 1 Bodeh

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Abstract. Modifications to learning are very possible, one of which is the modification of physical education, sports and health education. This is one way to increase the likelihood of success of a material provided by the teacher. The concept of this game modification is one approach that is in accordance with the considerations made to achieve success. The purpose of this study was to determine the effect of modifications to the sport of basketball to improve the process and learning outcomes of physical, sports and health education for class X students of SMA Negeri 1 Bodeh. This study uses a quantitative research type with a quasi-experimental design with one group pretest-posttest approach. The population in this study was 252 students while the sampling technique was the Slovin formula with a sample size of 155 students. This study gave the result that there was a significant effect with a t-test value of 0.00 which means that there was an effect of modifying basketball to improve the process and learning outcomes of physical, sports and health education for class X students of SMA Negeri 1 Bodeh

Keywords: Modification of Basketball Game Sports, Learning Outcomes, Learning Process

1. Introduction

Physical Education, Sport and Health (Penjasorkes) is a group of subjects taught from elementary to secondary or vocational education through physical activity. Penjasorkes is expected to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (attitude - mental - emotional - sportsmanship - spiritual - social), as well as the habit of living a healthy life which aims to stimulate growth and development of physical and psychological qualities balanced.

[1] states that Penjasorkes is a stage of the general education program that contributes to the overall growth and development of children, especially through movement experiences. This is a learning program that pays attention to all learning domains, namely psychomotor, cognitive, and affective.

As for this understanding, it also explains that in essence physical education is an education that shapes the character of students. Therefore, to achieve the national goal of physical education, it can be used as an appropriate effort so that the character of the

Indonesian nation is getting better according to the objectives of the 1945 Constitution, namely to educate the life of a nation which has intelligence both physically and spiritually.

The scope of the Penjasorkes subject includes games and sports, developmental activities, gymnastic activities, rhythmic activities, water activities, and out-of-school education. Games and sports include traditional sports, games, skills, locomotor-non-locomotor, and manipulative, athletics, baseball, rounders, kippers, football, basketball, table tennis, tennis, badminton, and martial arts, as well as other activities [2].

Penjasorkes is understanding the concept of physical activity and sports in a clean environment as information for achieving perfect physical growth, a healthy lifestyle and fitness, skills, and a positive attitude [2]. One of the Physical Education, Sports and Health lessons taught in schools is the game of basketball.

Basketball as one of the selected big ball game materials in Physical Education learning in its implementation must refer to the content of educational objectives including developing self-management skills in an effort to develop and maintain physical fitness and a healthy lifestyle through various selected physical and sports activities. In addition, the goals stated in the game of basketball are basically two techniques, namely (1) Basic techniques which include techniques without the ball and basic techniques with the ball, (2) Advanced techniques which include defensive techniques and attacking techniques. In the delivery of basketball game material there are several modifications. This aims to make students feel interested and easy to master the material being taught.

Learning modification is one of the approaches used in learning by emphasizing joy, increasing the likelihood of success, and being able to do the moves correctly. The purpose of the modification has several considerations including learning sports with modified rules and tools intended to reduce the risk of injury, will be able to develop children's skills more quickly, foster joy and fun in students who are in competitive situations. Modifications that are usually made in learning are the playing field, number of players, rules, size, weight and tools used, so the selection of modifications is not something that does not have special considerations and criteria for students [3].

As implemented in SMA Negeri 1 Bodeh, one of the basic competencies learned by students is by practicing variations and combinations of shooting techniques in basketball as well as the values of tolerance, confidence, courage, maintaining the safety of themselves and others, being willing to share space and equipment. Besides that, they also use hula hoops as a substitute for a basketball hoop to practice shooting in the early stages of learning to play basketball.

2. Methods

In this study using a type of quantitative research. In carrying out research using a pre-experimental design, this type of quantitative research is a scientific research method that meets scientific principles with research data in the form of numbers and analysis using statistics [4]

The method used by the author in this research is pre-experimental design. According to [5] experimentation is a method in research that involves manipulating independent variables, controlling external variables and measuring the effects of independent variables on the dependent variable.

The determination of the sample is based on purposive sampling technique. Purposive Sampling is a technique for taking samples of data sources with certain considerations [6]. The

sample in this study was taken using the slovin formula, with the results of calculating a total of 155 samples in class X students SMA Negeri 1 Bodeh.

3. Result and Discussions

The following is a description of the data from the research results which were calculated using IBM Statistics 21 based on the results of the pretest and posttest.

Table 1 Description of the Learning Process Before Game Modification Is Done

Category	Frequency	Percentage
Excellent	25	16,1%
Good	40	25,8%
Pass	60	38,7%
Weak	30	19,4%

Based on the results in the table above, that there are still quite a number of students who have not participated in the learning process of playing basketball in physical education, sports and health subjects. From these results, it can be said that the learning process is still not optimal.

Table 2 Description of the Learning Process After Game Modifications Are Done

Category	Frequency	Percentage
Excellent	35	22,6%
Good	70	45,2%
Pass	35	22,6%
Weak	15	9,6%

Based on the results in the table above, that there is an increase in the learning process of playing basketball after modifying the game and students participating in the learning process of playing basketball in physical education, sports and health subjects well. From these results, it can be said that the learning process is optimal.

Table 3 Description of Game Modification Test Results

Description	Pre-Test	Post-Test
Average	13,57	12,42
Std	15,67	11,60
Varian	240,766	185,122
Maximum	23,39	20,39
Minimum	9,14	11.63

Calculations in Table 3 show that the average time of physical, sports and health tests before modifying student games on student endurance in playing basketball is 13.57 seconds, with a standard deviation of 15.67, variance of 240.765, with a maximum time of 23.39 seconds and a minimum time of 11.63 seconds.

The average result of the physical, sports and health test time after modification of the student's endurance in playing basketball is 12.42 seconds, with a standard deviation of 11.60, a variance of 185.122, a maximum time of 20.39 seconds and a minimum time of 11 .63 sec.

Table 4 Summary of Normality Test

Variable	Asymp.Sig.	Significant	Exp
Pre	0,419	0,05	Normal
Post	0,317	0,05	Normal

Based on the results of the Kolmogorov-Smirnov test, the Asymp value was obtained. Sig. (2-tailed) in the pre-test data of 0.419 which means greater than 0.05, then the pre-test data distribution is declared normal. Then the Asymp value is obtained. Sig. (2-tailed) in the post test data of 0.317 which means greater than 0.05, then the distribution of the data in the post test is declared normal.

Based on the results of the description, all data variables are normally distributed, because each variable has an Asymp value. Sig.(2-tailed) is greater than the significance of α of 0.05. This means that each research variable is normally distributed or the population of the sample data taken is normally distributed.

Table 5 Summary of the results of the Analysis of the Effect of Modification of the Basketball Game on the Process and Outcomes of Class X Penjasorkes at SMA Negeri 1 Bodeh

Variable	Significance	Significance alpha
Pre-Post Test	0,00	0,05

The results of the hypothesis test using parametric statistics paired sample t test can be seen with a significance value of 0.00. Means $0.00 < 0.05$, which means that H_0 is rejected and H_a is accepted. Therefore, it can be concluded that there is an effect of modification of the game of basketball on the process and results of Physical Education and Health lessons in class X at SMA Negeri 1 Bodeh.

Based on the results of research that has been done using a modified basketball game, it has a significant effect. It can be seen that the t-test calculation results have a value of 0.00 with a significance level of α of 0.05, so it can be said that $0.00 < 0.05$, which means that the modification of basketball games affects the process and results of physical education, sports and health lessons.

Based from the results of research that has been done and is supported by research that has been done before by Yuli Adi Nugroho in 2011 with the title "Student Interest in Modified Volleyball Games in Physical Education Learning in Class VIII Students of SMP 2 Kaliwiro Kab. Wonosobo" concluded that the interest of grade VIII students increased after the game modification was carried out.

Through these two research results it can be interpreted that game modifications in physical, sports and health education learning which are varied and innovative have a significant influence on the process and learning outcomes which will also affect the ultimate goal of education to be achieved by the teacher.

4. Conclusion

Based on the research data that has been obtained and the results of existing calculations, there is an effect of modifying the game of basketball to improve the process and learning outcomes of class X physical education, sports and health subjects at SMA Negeri 1 Bodeh. This can be proven based on the results of the t-test calculation of 0.00, so that the value is $0.00 < 0.05$, which means that H_0 is rejected and H_a is accepted. Therefore, it can be concluded that there is an effect of modifying the game of basketball on the process and results of physical education lessons. class X at SMA Negeri 1 Bodeh.

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