

Application of Sepak Takraw Ball Modification to Sepak Sila Learning Outcomes

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ABSTRACT

The purpose of this study was how to implement the sepak takraw ball modification and to find out how much the learning outcomes of sepak takraw have increased. The type of research used was pre-experiment with a quantitative approach in the form of a one grub pre-test post-test design. The population used was all class VIII of SMP Negeri 8 Surabaya by randomly sampling one class using a spin tool, totaling 30 students. The research instruments used were knowledge tests and skills tests. The knowledge test is in the form of multiple choice questions and for the skills test, each student performs the soccer movement activity in pairs and takes turns with the target of putting the ball in the cardboard 4 times. The results of the data normality test calculations produced pretest and posttest knowledge data sig values .002 and .003 and pretest and posttest skills data sig values .000 and .028 < 0.05 which can mean that both data are not normal. The results of the Wilcoxon test processing for the knowledge test and skills test with sig values of .017 and .000 < 0.05, which means that the hypothesis is accepted so that both can be concluded that there is an influence of the application of the sepak takraw ball modification on the learning outcomes of sepak takraw. the resulting improvement for the knowledge test was 74% and for the skills test was 82.32%.

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Abstrak

Tujuan dari penelitian ini untuk mengetahui bagaimana penerapan modifikasi bola sepak takraw serta untuk mengetahui seberapa besar peningkatan hasil belajar sepak sila. Jenis penelitian yang digunakan praeksperimen dengan pendekatan kuantitatif berupa desain one grub pre-test post-test design. Populasi yang digunakan seluruh kelas VIII SMP Negeri 8 Surabaya dengan pengambilan sampel satu kelas secara acak menggunakan alat spin yang berjumlah 30 siswa. Instrument penelitian yang digunakan yaitu tes pengetahuan dan tes keterampilan. Tes pengetahuan berupa soal pilihan ganda dan untuk tes keterampilan setiap siswa melakukan aktivitas gerakan sepak sila secara berpasangan dan bergantian dengan sasaran memasukkan bola dalam kardus sebanyak 4 kali kesempatan. Hasil perhitungan uji normalitas data yang menghasilkan data pretest dan posttest pengetahuan nilai sig .002 dan .003 dan data pretest dan posttest keterampilan nilai sig .000 dan .028 < 0.05 yang dapat diartikan data keduanya tidak normal. yang menghasilkan data Hasil pengolahan uji Wilcoxon untuk tes pengetahuan dan tes keterampilan dengan nilai sig .017 dan .000 < 0.05 yang artinya Hipotesis diterima sehingga keduanya dapat disimpulkan adanya pengaruh penerapan modifikasi bola sepak takraw terhadap hasil belajar sepak sila. Peningkatan yang dihasilkan untuk tes pengetahuan sebesar 74% dan untuk tes keterampilan sebesar 82.32%.

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INTRODUCTION

The impact obtained by students on takraw material if they do not have interest and attention, the learning outcomes will be low and have not reached the predetermined learning completeness. (Wijayadi, 2022). If this is allowed to continue, students will increasingly dislike and will not be able to maximize their ability to learn sepak takraw material. Sepak takraw is a combined game of several other sports which include volleyball because the sepak takraw movement returns the ball over the net like a volleyball movement, soccer because the way to play it only uses the feet, and the last is like gymnastics because in sepak takraw it also requires flexibility in playing it, badminton because it uses the same field size as badminton. (Iyakrus & Ramadhan, 2021). Researcher Sucipto et al (2017) explained that the sepak takraw game begins with a tekong player or an initial hitter serving in the center circle of the field towards the opposing player's field.

A person can be said to be good at playing sepak takraw if he has the ability to master basic movement skills and special movements in sepak takraw, the basic movement skills of sepak takraw games include kicking including horse sepak, sepak sila, sepak badek, and thigh, chin and heading movements. Special skills in sepak takraw which include serving, smash, and also block. (Fajar, 2019). The most dominant basic movement of sepak takraw game and an important requirement for players who play well is sepak sila. It is said to be the most frequently performed movement in sepak takraw so that sepak sila is nicknamed the mother of sepak takraw games, because this movement in sepak sila has many functions, including being used to receive serves from opponents, pass the ball to friends, save the ball and deliver the ball to opponents (Suprayitno, 2018). (Suprayitno, 2018).

Definition of sila soccer explained by Sue et al (2021) is an attempt to play the ball using the inside of the foot, the dominant foot kicks as the recipient of the ball and the other foot as a fulcrum with a series of movements starting from the position of the feet, body, hands, and further movements that cannot be separated. This sepak sila movement can be said to be one of the simplest and easiest movements in the sepak takraw game, but in reality there is a lack of mastery, ability and skill in performing the movement. Because the ball is too hard, students feel afraid in participating in sepak takraw learning so that it is difficult to do basic sepak takraw movements such as the example of sepak sila. a teacher must try to make the learning process effective by making an interesting learning media. (Sunarto et al., 2016). This makes PJOK (physical education, sports and health) teachers have to make the learning process fun, more creative and innovative, teachers can develop the learning process through modifications. Modification is also referred to as one of the alternatives used to complete and facilitate the learning process (Yulianti, 2014). (Yulianti, 2014). Modification is aimed at creating new, unique and interesting things adapted to the means that will be used in the learning process. (Afidah et al., 2022)..

Learning modification is one of the teacher's alternatives to facilitate students in participating in learning according to their abilities. Modification is a change in form, function, and benefits without changing the original characteristics. (Firmana, 2017). Various types of learning modifications

according to researchers Saputra et al (2018) can be done in several ways through environmental modifications, rule modifications, game modifications, according to the abilities and conditions of students. One way to modify environmental conditions is through the infrastructure used in learning which includes large and small equipment, light weight, high and low equipment. The lack of facilities and infrastructure in schools so that teachers have difficulty in achieving goals and pursuing learning targets, therefore teachers can modify infrastructure facilities including the original ball replaced with a sponge ball that does not cause pain because the ball is very light and makes it safe. (Sunardi, 2018).

Research conducted by Parlan (2020) Explaining that modifying facilities and infrastructure can increase student activity in participating in physical education learning, because the key in physical education is playing-moving-cheerful through the playing approach students feel happy and can move more. Lack of active students moving in participating in sports learning, especially in sepak takraw ball games. The number of reasons in the learning process, for example, fear of the ball being hit in the nose, fear when it hurts when heading, can damage shoes, as a physical education, sports and health (PJOK) teacher must be able to package this sepak takraw material more effectively and fun so as not to experience difficulties during the learning process. (Efrain, 2016).

The way the teacher creates a pleasant atmosphere in learning sepak takraw is through ball modification. The purpose of ball modification can overcome the lack of sepak takraw ball facilities in schools. Ball modification can also simplify the characteristics of the ball used so that it can make it easier for students to perform sepak sila movement skills compared to the standard sepak takraw ball, as well as to improve student movement. Learning through alternative modified sepak takraw balls makes students learn that physical education, sports and health (PJOK) is very important in daily activities. Students also find it easier to understand sepak takraw material. The learning approach through this modified ball will make it easier for students to understand sepak takraw material because it is explained according to the stages of cognitive, effective and psychomotor development so that students can move more widely and play in a happy atmosphere. (Soetacik, 2019).

The application of an appropriate learning model can help to improve the quality of the learning process and can make student learning outcomes more optimal. (Sulistyo & Sceisarriya, 2021).. Learning outcomes are a measure of student learning achievement through changes experienced by each student after participating in learning. (Ariyawan, 2021). The success of student learning can be seen through the results of the behavior carried out and the absorption of students in learning activities. The learning process is carried out with a stimulus that has been given to achieve a learning goal. (Aufa & Ridwan, 2023).. The success of PJOK learning depends on the approach and creativity of a teacher in teaching, so that it is very influential in improving student learning outcomes. (yusmadi, 2018).

Based on observations made by researchers at SMP Negeri 8 Surabaya during the implementation of the introduction of the school environment (PLP) in the learning process of class VIII sepak takraw, it shows that students experience difficulties and pain in carrying out sepak takraw motion activities, especially performing sepak sila movements with the use of a standard sepak takraw

ball, so that the movements performed can be said to be less than optimal. Based on the problems that occur, researchers provide solutions by using the application of sepak takraw ball modifications to the learning outcomes of sepak sila. The application of the ball modification used is in the form of a plastic ball covered with black selective, for the size of the ball used is not much different from the standard takraw ball but the weight of the ball is lighter than the standard takraw ball.

METHODS

The method used in this research is a pre-experiment method with a quantitative approach, the design used is a one group pre-test post-test design. The population used was all class VIII SMP Negeri 8 Surabaya with a random sampling of one class using a spin tool which showed class VIIF as a research class with 30 students. The research instrument used is a knowledge test in the form of multiple choice and skill tests in the form of sila soccer activities by inserting the ball in cardboard. this skill test is based on the game used in the PJOK teaching and learning process. data analysis techniques using *excel* and SPSS (Statistical programming for social science) version 25.

This research was conducted by students of class VIIF SMPN 8 Surabaya which numbered 30 students. This study was conducted for 2 meetings, for the first meeting held on Monday, January 29, 2024 which was attended by 27 active students but there were 3 of them 2 permits and 1 without information, the second meeting was held on Monday, February 05, 2024 which was attended by 27 active students and 3 of them were sick, permission, and without information, so that those who participated in the study for meetings 1 and 2 totaled 25 students.

The first meeting students do a pretest, namely a test of knowledge and skills of sila soccer activities by doing a written test of 4 multiple choice questions and performing sila soccer movements by inserting the ball in a cardboard box 1 meter away in pairs in order of attendance, followed by an initial treatment which is shown a ppt about understanding the material of sila soccer and also asked to do a throwing movement to kick the ball with sila soccer which is done 10 times in pairs and alternately with a distance of 2 meters then students in pairs perform sila soccer to insert the ball in cardboard 10 times alternately with a distance of 1 meter. The 2nd meeting students are given the 2nd treatment by showing a video about the basic movements of sila soccer and doing the same movements as the first treatment after that students are given a knowledge and skills test like the first test which will be used as posttest results.

RESULTS AND DISCUSSION

This study aims to test the application of modified sepak takraw balls to improve the learning outcomes of sepak sila. The following are the results of descriptive statistical tests and normality, Wilcoxon test, and percentage increase.

Table 1. Descriptive Statistics and Data Normality Test Results

Variables	Test	Minimal	Maximal	Mean	Standard Deviation	p-Value	Conclusion
Knowledge	Pre-test	25	100	63.00	21.794	.002	Not normal
	Post-test	50	100	75.00	19.094	.003	Abnormal
Skills	Pre-test	56.25	81.25	66.4972	6.01917	.000	Abnormal
	Post-test	65.62	96.87	83.4116	8.63294	.028	Not normal

*Sig>0.05

Based on the data from statistical tests and normality tests in table 1, it is explained as follows:

- a. Knowledge pre-test and post-test p-value of .002 and .003 (sig < 0.05), the data is abnormal
- b. The pre-test and post-test p-value skills are .000 and .028 (sig < 0.05), the data is abnormal

Table 2. Wilcoxon Test Results

Variable	p-value
Knowledge	.017
Skills	.000

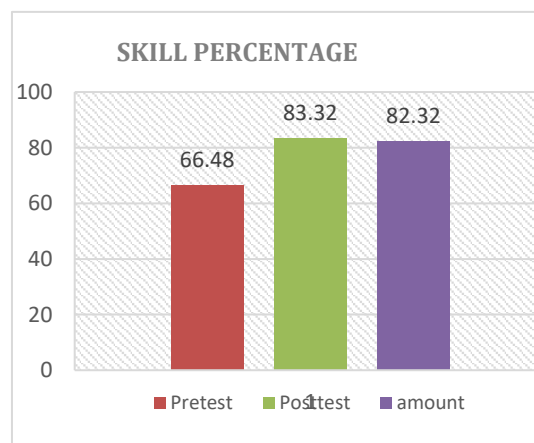
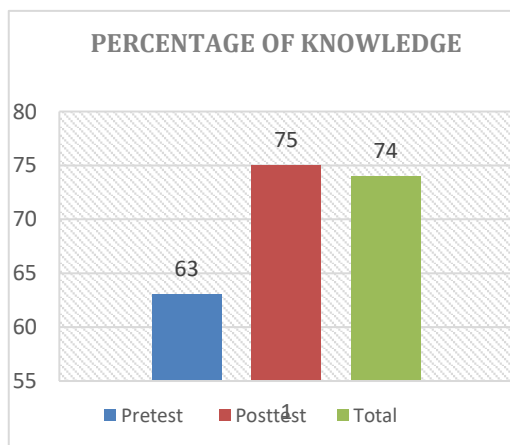
*Sig < 0.05

Based on the data from the Wilcoxon test results table 2 is explained as follows:

- a. Knowledge in the pre-test and post-test p-Value of .017 (sig <0.05) means that the hypothesis is accepted, which is concluded that there is an effect of the application of modified sepak takraw balls on the learning outcomes of the sepak sila knowledge test.
- b. Skills in the pre-test and post-test p-Value of .000 (sig <0.05) means that the hypothesis is accepted, which is concluded that there is an effect of the application of modified sepak takraw balls on the learning outcomes of the sepak sila skill test.

Table 3. Percentage Increase of Pre-test and Post-test

Variables	Pre-test	Pots-test	Percentage
knowledge	63	75	74%
skills	66.64	83.32	82.32%



Based on the data on the percentage increase in the learning outcomes of soccer in table 3, it can be explained as follows:

- a. Knowledge of the mean pre-test results is 63% and the mean post-test is 75% so that the increase in percentage is 74%.
- b. The skill of the pre-test mean result is 66.64% and the post-test mean is 83.32% so that the percentage increase is 82.32%.

Discussion

Based on the results of research obtained using SPSS with the Wilcoxon test, the pre-test and post-test data for knowledge as many as 2 students decreased, 13 students increased, and 10 students had the same value, with a p-value of $.017 < 0.05$, which means that the hypothesis is accepted and it can be concluded that there is an effect of the application of modified sepak takraw balls on the learning outcomes of the sepak sila knowledge test with an increase in the percentage of 74%. The skill test produces pre-test and post-test data as many as 1 student has decreased, 23 students have increased and 1 student with the same value, with a p-Value of $.000 < 0.05$, which means that the hypothesis is accepted and it can be concluded that there is an effect of applying modified sepak takraw balls on the learning outcomes of sepak sila for skill tests, with an increase of 82.32%.

This study has a difference with several previous studies in the means used, population and sampling, methods and designs used. With these differences, the resulting data are also different. The application of the ball modification used is in the form of a plastic ball covered by a black colored pattern, for the size of the ball used is not much different from the standard takraw ball but the weight of the ball is lighter than the standard takraw ball. The advantages of using this plastic ball are lighter so that students are not afraid to kick, easy to obtain and can save costs used to meet the limited infrastructure at school, but there are weaknesses with the use of this plastic ball modification because the ball is lighter than the standard takraw ball so it is easily blown away if the wind conditions are strong. The ball modification was carried out due to the limited infrastructure at school which made it difficult for teachers in the teaching and learning process, and also the standard ball was too hard so that students felt afraid and did not dare to do it, so the researchers applied innovations with ball modifications using plastic balls, with the latest innovations students will be more interested in mastering the material presented. (EEfendi & rhamadhansyah, 2017).

This study has a difference with several previous studies in the means used, population and sampling, methods and designs used. With these differences, the resulting data are also different. Future research can apply the latest innovations by using other variations of ball modifications that can affect the success of conducting research.

CONCLUSIONS

Based on the results of research on the application of sepak takraw ball modifications to the learning outcomes of sepak sila for class VIII students at SMPN 8 Surabaya, the following conclusions are obtained; 1). This research is able to provide *alternative* teachers in the learning process to complement infrastructure and can be adjusted to the conditions and abilities of students. Learning done by creating new things will be more interesting and fun and students do not feel bored and bored. 2) The application of sepak takraw ball modifications can improve the learning outcomes of sepak sila, the results of data analysis show an increase in the learning outcomes of sepak sila knowledge and skills in sepak takraw learning using ball modifications. The application of ball modifications in the sepak takraw learning process is able to improve the learning outcomes of knowledge and skills of sepak sila by 74% and 82.32%.

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