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Effectiveness of Play Approach in Improving Underhand Passing Skills in Volleyball Games in Children Aged 12-13 Years

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Abstract

This study aims to analyze the effectiveness of the play approach in improving underhand passing skills in children aged 12-13 years. This study used a pre-experimental method with a Pretest-Posttest Control Group design. The sample consisted of 170 junior high school students in Saguling District, with 85 grade VII students of SMPN 1 Saguling as the experimental group and 85 grade VII students of SMPN 2 Saguling as the control group, selected through purposive sampling. The results showed that the play approach was significantly more effective than the conventional method. The average increase in scores in the experimental group was greater, with statistical tests showing a Sig. (2-tailed) = 0.000 ($p < 0.05$). Cohen's d effect size test = 1.16 showed a very strong effect. The conclusion of this study shows that the play approach can be applied in physical education learning to improve basic volleyball skills and student motivation, and is recommended to be integrated into the school sports curriculum.

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INTRODUCTION

Volleyball is one of the most popular sports among children and teenagers. Basic skills such as underhand passing are one of the important skills that volleyball players need to master from an early age. At the age of 12-13 years, children are at an optimal stage of motor development, where they can develop technical skills through structured exercises and appropriate methods. Therefore, the right approach to learning skills is very important to support their development.

The play approach in sports learning has been proven to be effective in improving motor skills in children. This approach allows children to learn through direct experience in a fun and interactive game context. In the context of volleyball, the play approach provides an opportunity for children to master technical skills, such as underhand passing, in a more natural and enjoyable way. This approach not only improves technical skills, but also motivates children to be more active in participating in training.

This study aims to examine the effectiveness of the playing approach in improving the underhand passing skills of volleyball in children aged 12-13 years. Through this study, it is expected to obtain a clear picture of the influence of playing methods on technical skills that can improve the quality of volleyball play at that age. The results of this study are expected to contribute to the development of more innovative sports learning methods that are appropriate to the developmental needs of children in schools and sports clubs.

Skill is a degree of success is a degree of consistent success in achieving a goal effectively and efficiently. A skill is a must for carrying out tasks that are free from elements of chance and luck. In the Big Indonesian Dictionary (KBBI) skill comes from the word "skilled" which means proficient in completing tasks, capable and agile. While skill is the ability to complete tasks (Hariyadin, 2021). Skill is an illustration of an individual's motoric capabilities which are characterized by expertise in one type of movement (Ficanysha & Neviyarni, 2021).

Factors that influence skills a) Physical factors b) Psychological factors c) Experience factors d) Attitude factors e) Motivation factors f) Gender factors g) Environmental factors (J.Juangsih, 2017). Skills are influenced by two factors, namely (a) Phylogenetic skills, are skills that are carried from birth, which can develop as the child gets older. (b) Ontogenetic skills, are skills that are the result of practice and experience as a result of environmental influences (Halintar Herlintang, 2019). A skill can only be mastered or obtained if it is studied with certain requirements, one of which is that learning activities or practicing the skill are carried out continuously within a predetermined period of time (Endang Susanti, 2015).

Volleyball is a sport played by 2 teams, each team consisting of 6 players (Imawati, Clarry Sada, 2014). Technique is a procedure that has been developed based on practice, and aims to find a solution to a particular movement problem in the most economical and useful way (Beutelstahl, 2019). In volleyball, there are several types of techniques that are often used by a player, as explained above, there are several basic techniques that must be mastered, including. Service is an attempt to put the ball into the opponent's area by the right-back player who is in the service area to hit the ball with one hand or arm (Sodikin & Yono, 2020). Passing is an attempt or effort by a volleyball player by using a certain technique whose purpose is to

pass the ball he is playing to his teammates as an initial step to organize an attack pattern on the opposing team According to (Alif Edo Yuniawan et al., 2012). Smash is the main blow in an attack in an effort to achieve victory (Kusumawati et al., 2020).

Effectiveness is the extent to which goals can be achieved in an optimal and appropriate manner, including maximum success and impact without wasting resources. In simple terms, effectiveness means "doing the right thing to achieve the desired results" with results that meet or exceed expectations. Effectiveness is a measure of the success or failure of achieving an organization's goals (Sartika, 2014). Effectiveness is doing something accurately, on time, objectively, and comprehensively in accordance with organizational goals (Steer, M.R, 2015). The effectiveness of a learning program is characterized by the following characteristics: 1. Successfully leading students to achieve predetermined instructional goals. 2. Providing an attractive learning experience, actively involving students so as to support the achievement of instructional goals 3. Having facilities that support the teaching and learning process (Firman, 2013). Effectiveness is an activity that is carried out and has an impact and results as expected (Lestari et al., 2023).

Effectiveness refers to the extent to which an action or effort can achieve the desired goal with optimal results. Effectiveness is an activity that is carried out and has an impact and results as expected (Lestari et al., 2023). The play approach is one way of learning which in its implementation is carried out through the form of games (Prasetyo, 2016). The play approach is a learning activity in the form of games carried out outdoors as learning material for physical education, sports and health (Kurniawan & Hartati, 2016). The play approach is: choosing the type of game that is appropriate to the child's developmental stage, knowing the child's needs, and being able to determine the learning method that is appropriate to the child's condition (Yudanto, 2005). The benefits of playing for children are as follows: 1. Playing that involves physical such as running, jumping, and kicking is useful for strengthening and training the child's limbs. 2. Playing that involves the senses or mind such as using play equipment that brings out feelings such as drawing and playing music or listening to cues provides opportunities for children to learn about new concepts, properties, and forms of certain objects (Ardini & Lestariningrum, 2018). Playing as an activity that is related to all components within the child, through play (when the child plays) the child is encouraged to practice his skills which are directed at cognitive development, language development, psychomotor development, and physical development of the child (Taufiqurrahman et al., 2024).

Many children aged 12-13 years have difficulty in mastering the skill of underhand passing due to the lack of a fun and interactive approach in their training. This is often caused by learning methods that seem monotonous or too focused on technique without giving room for exploration and play. Although there are many studies that examine the play approach in sports in general, studies that specifically examine the application of the play approach in volleyball skills learning in children aged 12-13 years are still limited. This creates room for more in-depth research in this area. This study offers novelty in terms of the method used, namely the play approach in the context of volleyball and focuses on the critical age group for the development of basic motor skills. This study can also fill the gap regarding the influence of the play approach in improving volleyball

technical skills that have not been widely studied.

METHOD

The research method is basically a scientific way to obtain data with certain purposes and uses (Sugiono, 2015b). Method In this study, the author conducted quantitative research using the pre-experimental method of the Pretest-Posttest Control Group Design. Pretest-Posttest Control Group Design. is a research activity where treatment can be known more accurately because it can be compared with the conditions before treatment was given (Sari et al., 2022). Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied (Sugiono, 2014). The population in this study were Class XII students of junior high School sub-district Saguling, totaling 3 schools consisting of junior high School 1 Saguling, junior high School 2 Saguling and junior high School 3 Saguling.

Participants

The sample is part of the number and characteristics possessed by the population (Sugiyono, 2015). In other words, the sample is smaller than and in this study the sample used was Class VII of SMPN 1 Saguling which consisted of 85 students and Class VII of SMPN 2 Saguling which consisted of 85 people so that the sample used was 170 people.

Sampling Procedures

The sampling technique used in this study is by using purposive sampling technique. This study only uses part of the subjects or population. Part or representative of the population studied is the sample (Arikunto, 2013). And according to other experts, Purposive sampling technique is a technique for taking samples of data sources with certain considerations (Sugiono, 2015a), the sample of this study used was Class VII SMPN 1 Saguling which consisted of 85 students as the experimental class and Class VII SMPN 2 Saguling which consisted of 85 students as the control class so that the sample used was 170 people.

Materials and Equipment

In this study, the researcher used a standardized underhand passing skill test instrument. This instrument was chosen because its validity and reliability have been tested through various previous studies. The use of this standardized instrument aims to ensure that the data obtained is accurate and reliable, and supports the comparability of research results with other similar studies. In addition, this instrument covers various aspects of essential underhand passing skills, thus allowing a comprehensive assessment of the participants' abilities. The selection of this instrument is also based on its ability to be implemented consistently in various research contexts and conditions, ensuring a high level of confidence in the results obtained.

Procedure

In this study, the research procedure consists of three stages, namely the preparation stage, the implementation stage, and the data processing and analysis stage. The following is an explanation of the three stages :

Preparation Stage At this stage, the researcher makes several preparations including selecting a theme or research topic, identifying problems, formulating problems, conducting preliminary studies, formulating hypotheses, determining research samples, and compiling a research plan. This preparation aims to ensure that the research has a strong

theoretical basis and clear methods to achieve research objectives.

Implementation Stage This stage begins with conducting a pretest on students' underhand passing skills which are then divided into experimental and control classes. In the experimental group, after the pretest, treatment was immediately given, while the control class was not given treatment. During the 2nd to 14th meetings, the experimental group received treatment through games, and this stage ended with a posttest. A total of 16 meetings were held.

Data Processing and Analysis Stage This stage is carried out after all data has been collected. The collected data is processed and analyzed. Furthermore, a hypothesis test is carried out to determine whether the hypothesis that has been made is accepted or rejected. Thus, the research results can be interpreted and conclusions can be drawn.

Data Design or Analysis

After the sample has completed all the tests given by the researcher and all the data has been collected properly, the next step taken by the researcher is to compile, manage, and analyze the collected data. Before conducting the analysis test, a number of prerequisite tests are first carried out to determine the feasibility of the data and the contribution of variables X1 and X2 together with variable Y. The data analysis techniques used in this study are as follows: 1. Finding the Average Value At this stage, the researcher calculates the average value of the data that has been obtained to get a general picture of the data distribution. 2. Normality Test The normality test is used to determine whether the data from the control class and the experimental class are normally distributed. If the data is normally distributed, the researcher can use a parametric test. If not, a non-parametric test will be used as an alternative. 3. Homogeneity Test The homogeneity test is used to determine whether the variance of the two groups (control and experiment) is the same or not. This test is important to determine the suitability of the analysis method that will be used next. 4. Hypothesis Test (Difference Test) After the normality and homogeneity tests are carried out, the next step is the difference test to see if there is a significant difference between the control class and the experimental class. 5. Effectiveness Test (Effect Size) If a significant difference is found, it is necessary to calculate how big the effect of the treatment is on the experimental class.

RESULTS

The results of the study on the effect of the playing approach on the underhand passing skills of children aged 12-13 years. The study was conducted to determine the extent to which the playing approach can improve underhand passing skills in volleyball. This study involved children aged 12-13 years, namely students of class VII of SMPN 1 Saguling and SMPN 2 Saguling with a sample size of 170 students. The results of the study were obtained from measuring underhand passing skills before and after being given treatment to children aged 12-13 years. The data collected came from two groups, namely the experimental group that received training with a playing approach and the control group that received training with conventional methods for the test results can be seen in the following table :

Table 1. Comparison of Pretest and Posttest Results

Category	Pretest Control (%)	Posttest Control (%)	Pretest Experiment (%)	Posttest Experiment (%)
Very good	0	2.35	0	24.7
Good	23.52	27.05	10.58	49.41
Enough	52.94	44.7	60	22.35
Not	22.35	25.88	25.88	3.52

enough				
Very less	1.17	0	3.52	0

Based on the research results in table 1. comparison of pretest and posttest results for the experimental and control groups in underhand passing skills :

a. Control Group

1. Pretest: Very Good (0%), Good (23.52%), Sufficient (52.94%), Less (22.35%), Very Less (1.17%). The majority of students are in the sufficient category.
2. Posttest: Very Good (2.35%), Good (27.05%), Sufficient (44.70%), Less (25.88%), Very Less (0%). There is an increase in the good category, but the majority is still in the sufficient category..

b. Experimental Group (Play Approach)

1. Pretest: Very Good (0%), Good (10.58%), Sufficient (60.00%), Less (25.88%), Very Less (3.52%). The majority of students are in the sufficient category.
2. Posttest: Very Good (24.70%), Good (49.41%), Sufficient (22.35%), Less (3.52%), Very Less (0%). The majority of students moved to the good and very good categories, showing significant improvement.

Dapat disimpulan Kelompok The experiment showed a greater improvement in skills compared to the control group. The play approach proved to be more effective in improving underhand passing skills than the conventional method. Student motivation and engagement were higher in the game-based method. For more details, see the diagram below.

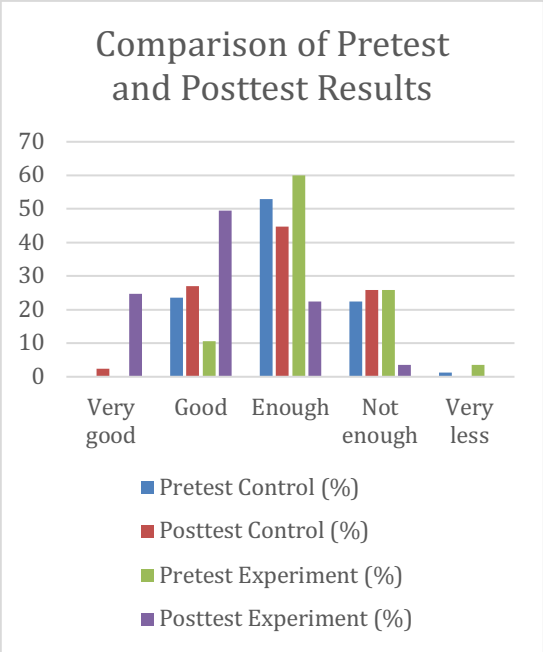

Fig 1. Research Results

Hypothesis Testing t-Test To test whether there is a significant difference between the experimental group and the control group after the treatment is given. Based on the calculation using spss 25, from the data taken, if the Sig. (2-tailed) value <0.05 then there is a significant difference, and vice versa if the Sig. (2-tailed) value> 0.05 then there is no significant difference. Based on the output above, the Sig. (2-tailed) value is 0.000 <0.05, so it can be concluded that there is a difference in the average of students' underhand passing skills between the playing approach and the conventional model.

Hypothesis Testing Using Two-Mean Equality Test (Two-Part) Data was obtained in the form of pre-test and post-test from the control group and the experimental group. Both data are primary data, namely data taken directly from the data source. In this study, there were two sample groups that were tested and data was taken, namely the control group and the experimental group..

Table 2. Assessment Results

Group	Test Period	Average	Standard Deviation
Control	*Pre-test*	25.72	6.718
	Post-test	26.06	7.531
	Difference	0.34	0.813
Experiment	*Pre-test*	23.34	6.548
	Post-test	34.96	7.691
	Difference	11.62	1.143

It can be seen in the table above that there is an average or mean value in the experimental class posttest of 34.96 and 26.06 in the control class posttest. This value can be interpreted as the average of the experimental class being higher when compared to the average of the control class.

DISCUSSION

This discussion is conducted by reviewing the research results which are then reviewed with a number of theories put forward by a number of experts. This discussion aims to provide answers to the following research questions: is there an effect of approach training on improving underhand passing skills in volleyball and to what extent is the effect of approach training on improving underhand passing skills in volleyball? From the processing and testing of the data that has been carried out, the results show that there is an effect of approach training on improving underhand passing skills in volleyball and there is a significant effect of approach training on improving underhand passing skills in volleyball. This is supported by the results of data testing and research (Erliana, 2014). which states that learning with a model has an effect on underhand passing skills in mini volleyball. From the average pretest and posttest, the percentage of increase is obtained. From this, it can be concluded that the effect of learning with a model can be applied appropriately because the results of learning underhand passing skills in volleyball are influenced by it so that the abilities possessed increase.

CONCLUSION

Based on the results of the study on the effect of the play approach on the underhand passing skills of children aged 12-13 years, it can be concluded that: The play approach is effective in improving underhand passing skills in volleyball in children aged 12-13 years. The results showed that students who used the play approach experienced a more significant increase in underhand passing skills compared to the conventional method. The increase in post-test results in the experimental group was greater than the control group.

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