



Modification of Learning Media Using Rubber Balls for Volleyball Learning Outcomes at The High School Level

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Abstract

Passing down is a technique of playing the ball by using the forearm side of the arm either by using one or with two arms simultaneously. A rubber ball is a ball made of elastic rubber in a round shape like a balloon, without being covered with synthetic leather like the original ball. This study aims to find out volleyball learning using rubber balls can improve passing. The research method used is the experimental method with research design using experimental methods with the pretest-posttest type. The population in this study were all class XI SMAN 1 Ciparay totaling 360 people, The sampling technique used was Cluster Random Sampling and the sample was 38 students of class XI-8 SMAN 1 Ciparay. 25, Based on the results of the research on the calculation and analysis of data from the results of the underpass test, it can be concluded that: Modification of learning media using rubber balls has a significant effect on increasing the underpass in volleyball for SMAN 1 Ciparay students.

Keyword : Down Passing, Rubber ball, Volleyball

INTRODUCTION

Volleyball is a game that uses the ball to be bounced (volleyed) in the air back and forth over the net (net), with the intention of dropping the ball in the opponent's field area in order to seek victory (Atsani, 2020). Volleying or bouncing the ball into the air can use all members or parts of the body from the toes to the head with a perfect bounce (Yusmar, 2017). Basically the principle of playing volleyball is to bounce the ball before it touches the floor, the ball is played three times bouncing in its own field alternately by trying to get the reflected ball across to the opponent's field over the net and trying to make it as difficult as possible for the opponent to receive (Faozi et al., 2019). Volleyball is played by two teams, each team consisting of six players, and each team tries to pass the ball over the volleyball net so that it falls on the floor of the opponent's field (Handil et al., n.d.), then prevent the same effort from the opponent in order to get points or numbers the first team to reach 25 is the winning team (Sari & Guntur, 2017).

Passing down is one of the basic techniques in volleyball that serves to provide feedback to teammates (Maliki et al., 2017). Lower passing is a technique that is used more

dominantly, where lower passing is needed to receive service. withstand opponent attacks and at any time can provide passes for friends who will do a. Therefore, the ability of basic passing techniques in volleyball is very important and must be mastered by every player. Therefore, the ability of basic lower passing techniques in volleyball games is very important and must be mastered by every player (Rohendi, 2019).

Learning is the process of interaction of students with educators and learning resources in a learning environment (Komariah et al., 2018). The definition is that teachers and learners together create an environment including a set of values and beliefs that are considered important to unify the view of the reality of life (Nurrita, 2018). In this definition, learning still brings the teacher together with the learner and collaborates in creating an agreement on what is important in order to in turn influence the view of the reality of life (Anadiroh, 2019). Learning activities are a series of events that influence learners in such a way that changes in behavior called learning are facilitated (Anjarrio & Purnama, 2020). Learning can be defined as the permanent influence on behavior, knowledge, and thinking skills, acquired through experience (Ratu et al., 2020).

Physical education is a conscious effort to create an environment that is able to influence the potential of students to develop towards positive behavior through physical activity (Kurniawan et al., 2018). Through this physical activity, it is hoped that the educational objectives which include cognitive, affective, physical, and psychomotor domains can be realized (Rizki et al., 2021).

Volleyball Learning Volleyball is one of the game sports included in the subject matter of physical education (Azidman, 2017). Many benefits are obtained by playing volleyball, including being able to form a good body attitude including anatomical, physiological, health and physical abilities (Setya et al., 2020). The benefits for the spiritual are that the psyche, personality and character will grow in a direction that is in accordance with the demands of society (Nugroho & Jariono, 2023). Of the many forms of play activities, volleyball is one of the forms of sports games that have very high educational value (Septiana, 2019). Therefore, the sport of volleyball should have been introduced to children from an early age. This certainly requires an action that supports the creation of effective learning (Wiranata, 2018). Teachers must be skillful in choosing learning strategies for effective, efficient learning, reflection and continuous improvement. Teachers who teach must always pay attention to student difficulties and understand and try to adapt materials to students. One of the basic techniques in volleyball is passing. There are several types of basic passing techniques, namely down passing, and up passing (Rusmiyadi et al., 2021). Mastery of this passing technique is very important, because if there is an error in

doing it, it is detrimental to the team itself where the opposing team will get numbers according to the current rallypoint system. to avoid these errors, it is necessary to master the basic techniques first (Irwanto, n.d.).

Modification Modification according to the Big Indonesian Dictionary (KBBI) is a change. The word modification can be used for something concrete or abstract. Examples of the use of concrete modifications are modifications to bicycles, cars, computers and others. The examples of the use of modifications for the abstract are behavioral and thinking modifications. Modification can also be used in the world of education, for example modifying the curriculum, learning methods, learning media, and others (Saputra, 2015).

Learning media The word media comes from the Latin *medius* which literally means "middle", "intermediary" or "introduction" (Agus Nadi, 2018). Teaching media is defined as anything that can be used to channel messages or lesson content, stimulate the thoughts, feelings, attention and abilities of students, so as to encourage the teaching and learning process (Juditya et al., 2020). At that time, the media was referred to as audio-visual aids, because at that time the role of the media was solely to assist the teacher in teaching. But later, the name is more popular as teaching media or learning media. Various forms of media can be used to enhance the learning experience in a more concrete direction. Teaching using media is not just using words (verbal symbols), so it is hoped that the results of a more meaningful learning experience for students will be obtained. (Saputra, 2015).

Rubber ball Rubber balls or modified balls provide several conveniences in the learning process, including: the ball is easy to obtain because the price is quite cheap so that the availability of the ball becomes a lot, does not cause pain when the child hits or receives the ball, the child is no longer afraid to hit or receive the ball because the ball used is heavy, by using rubber balls or modified balls children will be free to do maximum activities without fear (Irawan, 2011). The use of rubber balls in lower passing provides pleasure for students because the ball is not easy to fall to the floor, it is easy enough to bounce and pass to friends. This ball is felt to have a good influence on learning volleyball lower passing because the quality is better than the balloon ball. The rubber ball has an advantage over the balloon ball, namely that the direction is easy to control right to the target according to the wishes of the students so that it can improve the students' volleyball lower passing ability.

Limited facilities and infrastructure for PE, especially volleyball in the school environment, so that in learning students are only passive waiting for their turn to use the tool. Lack of student ability in the learning process of volleyball games. Less varied learning methods, so students get bored quickly. It is not yet known the impact of applying

a learning media to overcome the difficulties of learning volleyball games. From this, researchers need to conduct this research.

METHOD

The experimental method is the research method used in this study (Shidiq & Choiri, 2019). The duration of the study consisted of 8 meetings (Gita Febrianti & Surya Medal Megantara, n.d.). The instrument used in this study was the Lower Passing test. The data analysis technique used uses statistical analysis with the help of the SPSS 25 program.

RESULTS AND DISCUSSION

Results

Tabel 1. Hasil penghitungan deskripsi data

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	38	33	90	46,03	12,443
Posttest	38	38	100	53,71	13,862
Valid N (listwise)	38				

Based on the table above, it is stated:

The average initial test result is 46.03 and the average final test is 53.71 While the standard deviation of the men's initial test results is 12.443 and the final test standard deviation is 13.862.

Tabel 2. Hipotesys Test

Paired Samples Test								
Paired Differences			95% Confidence Interval		of the Difference		t	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	Lower	Upper			
Pair 1 pretest-posttest	-7,800	3,509	,906	-9,743	-5,857	-8,609	37	,000

From the results of the calculation, it can be seen that the significance level is 0.000 or $0.000 < 0.05$ It can be concluded that the exercise using rubber ball media has significance on the results of passing under volleyball in class XII 8 SMAN 1 Ciparay before and after treatment.

Discussion

From the results of the calculation of data analysis in research on modification of learning media through rubber balls to lower passing in students of Ciparay State Senior

High School 1, there is a significant increase in the lower passing of volleyball games in students who take part in volleyball extracurriculars through modification of learning media using rubber balls it is in line with, Efforts to improve the ability to pass down using modified media rubber balls have a significant effect on the ability to pass down using actual volleyball in volleyball games (Ilham K et al., n.d.). It can be seen from the results of the initial test of male students that eight students were in the very poor category, seven students were in the poor category, while the final test of male students four students were in the very poor category, ten students were in the poor category, 1 student was in the sufficient category. While the initial test of female students nine students were in the very less category, eleven students were in the less category, three students were in the good category, in the final test of female students two students were in the very less category, eighteen students were in the less category, two students were in the good category, and one student was in the very good category. In male students in the final test results there are still many getting scores in the less category in their initial test many of whom are in the very less category, while in female students one student is in the very good category and two people in the good category because they join a volleyball club outside school, while most of them still get the less category from which they are in the very less category, Learning with modified learning media using rubber balls can improve the learning outcomes of lower passing (Purwantoro et al., 2023). The learning process of volleyball material requires a method that can create a comfortable, effective and interesting learning environment. To improve the quality of education, teachers are required to be able to create and create more varied and innovative learning activities that can motivate students to learn optimally both in independent learning and classical learning (Suharta et al., 2022) Although it has a significant effect on volleyball lower passing through modified learning media using rubber balls, there are still many students in the final test of lower passing getting the category less, it is caused by several factors, including students who are less focused on paying attention to the directions given and because learning at SMAN 1 Ciparay is still not full entirely to school making students divided into 2 at the time of research even though on the same day, this situation is one of the factors that hinder the development of students' sports education in terms of doing direct practice together with the teacher as the teacher (Yono & Sodikin, 2020). To do a good lower pass, students of SMAN 1 Ciparay can also be given other exercises to support the improvement of lower passing techniques such as training to improve coordination, coordination is a process of muscle cooperation that will produce a composed and directed movement, which aims to form the movements needed in the implementation of a technical skill, the better the

cooperation (coordination) of all elements of motion involved, the better the motion that can be made or displayed (Fallo & Hendri, 2016). In addition to using modifications to learning media using rubber balls, other learning media can be provided so that the ability to pass down students can increase with a good category, one of which is with the basic technical skills of passing down can be applied by playing methods, because students perform happily, relaxed, and voluntarily to perform motion skills repeatedly so that coordination of muscle nerve function (neuromuscular) forms a conditional reflex so as to produce efficient and fast movements (Setya S et al., 2020). Because this research was conducted at the high school level, the application of learning media modifications using rubber balls at the elementary level, learning media modifications using rubber balls can improve the learning of passing down the volleyball game of SMAN 1 Ciparay students. In this study, the modification of learning media using rubber balls can improve the ability to pass down in elementary school students.

CONCLUSION

Based on the results of research calculations and data analysis of the results of the lower passing test, it can be concluded that: Modification of learning media using rubber balls has a significant influence on the improvement of lower passing in volleyball sports of Ciparay State Senior High School students.

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