

Modification of Volley Ball Games To Increase Under Passing Skills

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Modifications to sports learning are very necessary to provide a pleasant learning atmosphere and activate students in the process. This research was conducted to improve the ability to pass under the volleyball game in high school students using a 3 on 3 game modification approach. The research subjects used were grade 10 students in one of the high schools in the city of Surakarta, Indonesia, which numbered 25 students. Data collection techniques are performed using direct passing tests. The data obtained were then analyzed descriptively quantitatively and took the percentage of students completeness. Based on the test results, in the pre-cycle stage, the percentage of students completeness was 36%, with an average grade of 68.6. In the Cycle 1 stage, students' completeness increased to 56%, with an average grade of 76.4. And in the Cycle 2 stage, there was an increase in completeness by 86%, with an average grade of 82.2. These results indicate that the 3 on 3 game modification approach to sports learning can improve students' under-volleyball passing ability.

Keywords : *volleyball, passing down, game modification, 3 on 3 games*

Introduction

Sports in the context of education has a definition as a means to educate students through the process of movement (Costa et al., 2011). Indonesia's state legislative system also states that education is a conscious and planned effort to create an atmosphere of learning and learning process so that students can actively develop their potential to have spiritual strength, emotional intelligence, and skills needed both for the person, nation and state (Hanansyah and Ginanjar, 2019). The goal of physical education is to provide educational experiences through movement so that the motor skills of students are in harmony with the process of growth and development and as a place to develop all the potentials of students in accordance with overall educational ideals including cognitive and affective aspects of students (Fajri, 2019; Halliday, Resnick, and Walker, 2011; Fox, Bowers, and Fons, 1993).

Along with the rapid progress of science and technology, especially in Indonesia, indirectly impacted on the decline in learning interest of students in schools. This is because in an era without limited access to information, students today, especially in high school, are on average already equipped with technological devices (such as smartphones) by their parents being able to get more knowledge and skills through the internet. This should be a challenge for

teachers about how to be able to increase the interest in learning of students in schools that have been "distracted" by it. PJOK subjects can be used as an appropriate solution to alleviate these problems because the material taught almost entirely involves gestures. With motion, students can temporarily be free from the influence of technological devices (Subekti, Hanief, and Mashuri, 2018). The problem does not stop here, because the teacher of sports studies in the process of providing subject matter is too monotonous and focused on only a few students and is not comprehensive. This resulted in the existence of some students who did not actively participate during the learning process. This is not in line with the understanding that physical education and health are educational processes that utilize physical activities that are planned systematically, aiming to improve individuals organically, neuromuscularly, perceptually, cognitively, socially and emotionally (Ministry of National Education, 2003). The ideal goal of the physical education program is comprehensive, because it includes not only physical aspects but also other aspects that include intellectual, emotional, social and moral aspects with the intention that the young person becomes a person who is confident, disciplined, healthy, fit and happy life (Lutan, 1988; Gabett and Georgieff, 2007). Therefore, teachers in the field of sports studies are required to be able to develop effective learning systems, in addition to having to understand and pay attention to the characteristics and needs of students (Arifin, 2017). For this reason, an appropriate learning approach is needed to solve the problem.

Physical education, health, and recreation learning approaches using game modification are one of the many efforts that can be made by teachers so that the learning process is able to reflect the principle of Developmentally Appropriate Practice. This means that teaching assignments submitted must pay attention to changes in students' abilities and conditions, and are able to help push towards these changes. The essence of the modification is to analyze and develop the subject matter by guiding it in the form of potential learning activities so as to facilitate students in the learning process (Saputra, 2015). So as to be able to create quality learning with several indicators, namely: (1) challenging; (2) pleasant; (3) encourage exploration; (4) provide a successful experience; and (5) developing thinking skills (Hidayatullah, 2010). Modifications in physical education subjects are needed, with the aim that students get satisfaction in following the lessons, increase the likelihood of success in participating and can do the right movement patterns (Lutan, 1988). This approach has the intention that learning material can be presented in accordance with the cognitive, affective, and psychomotor stages of students. So the purpose of learning can be achieved. Modification is used as an alternative approach in physical education learning which is carried out with various considerations. The reasons for the need for modification in learning are (1) children are not adults in small form, physical and mental maturity of children is not as complete as adults; (2) physical education learning approaches so far are less effective, only lateral and monotonous; and (3) physical education learning facilities and infrastructure currently available are almost entirely designed for adults (Saputra, 2015). Meanwhile Aussie (1996) developed modifications in Australia with several considerations, namely (1) children do not have the physical and emotional maturity of adults; (2) exercise with modified equipment and regulations will reduce the risk of injury to children; (3) Modified sports will be able to develop children's skills faster than standard equipment for adults; and (4) modified sports foster children's excitement and pleasure in competitive situations. Some components that can be modified as an approach in learning PJOK include: (1) Size, weight or shape of the equipment used; (2) playing field; (3) play time / duration of play; (4) game rules; and (5) number of players (Aussie, 1996).

In the curriculum structure of Physical Education, Sports, and Health in high school, one of the materials that can be modified is the volleyball game. In the curriculum framework, volleyball is also included in the subject matter category of the big ball game. To be able to play

this volleyball game, there are at least two basic techniques that are very fundamental to master namely service and passing (Duncan, Woodfield, and Al-Nakeeb, 2006; Ciuffarella, Russo, Masedu, Valenti & De Angelis, 2013). Other basic techniques in volleyball games are smash and block (Lawrence, Kumar, and Mamata, 2002; Afonso, Esteves, Araujo, Thomas, & Mesquita, 2012; Inkinen, Hayrinen, and Linnamo, 2013). Volleyball game is one of the popular sports in Indonesia, in addition to badminton and soccer. However, in the context of learning in high school, it is often found where when the game material is taught, students who actively participate are only certain students. Teachers also often give team game materials such as volleyball directly to real games. So that ordinary students in this game will sit quietly watching other students play. Physical education which is centered on the direct teaching model produces high levels of student inactivity (Ginanjar, Suherman, Juliantine, and Hidayat, 2019; Hanansyah and Ginanjar, 2019). If this is left by the teacher, it will have an impact on the weak mastery of students' skills in volleyball, especially under passing skills. The statements above seem to be supported by pre-cycle results data that have been carried out in one of the high schools in the city of Surakarta, Indonesia, by conducting interviews and discussions with one of the teachers in the field of study. Based on the results of the interviews, information was obtained that in high school students' interest in attending sports lessons was still lacking. Most of the students did not participate when learning took place, especially in the learning material under volleyball passing. Not surprisingly, the value of the material under the volleyball passing high school students is still low and there are still many who have not been able to meet the Minimum Graduation Criteria set at the school, which is 75. Of the 25 students, especially grade 10, only 2 students that meets the Minimum Graduation Criteria standard for under passing material. Many factors cause the weak output of under-passing learning outcomes, including the interest of students in participating in sports lessons so that during learning, students become less actively participating, which in turn will impact on low student scores. Then, there are internal factors in the students themselves, who feel bored with the strategy of giving monotonous material by the teacher, who is accustomed to providing the main material without accompanied by games or interesting learning variations that can arouse the active participation of students while participating in sports learning. So it needs to be given a variety of learning materials that are packaged attractively and in accordance with the characteristics of students in the high school environment.

Therefore, it is necessary to arrange a learning modification media especially for volleyball under passing material. A fun volleyball modification game so students can play while learning, and are expected to be able to overcome the problems discussed above. Modification of the game in question is a 3 on 3 game. 3 on 3 game is a volleyball game that is modified in such a way as to the number of players, the size of the pitch and the net height in order to improve the ability of students in passing under volleyball (Indriyani, 2011; Kasablis, Douda, and Tokmakidis, 2005). Where with the modification of this game in addition to aiming to increase the active participation of students during the learning material under the volleyball passing school, which is ultimately expected to improve the skills of students doing passing under the volleyball. Learning that is designed in the form of a game aims to fulfill the desires of motion in which there is an element of learning. The use of game modifications in learning can create a fun teaching and learning process and the achievement of the objectives of the learning.

Research Method

This research is a classroom action research using the Kemmis and McTaggart models whose procedures include planning, implementation and observation, and reflection or

commonly known as cycles (Garcia-Tormo, Jimenez, & Rabago, 2015). Subjects in this study were 10th grade students in one of the high schools in the city of Surakarta, Indonesia, amounting to 25 students. The initial procedure carried out in the study began with observation of class X students in the high school environment during the learning process of volleyball with under passing material. The observational data indicate there is a problem, then to provide a solution to the problem by using a 3 on 3 game modification for students in high school. (1) Planning, in this step the stage used involves creating a learning scenario using a 3 on 3 game modification medium for under passing material. Then, make a passing passing test that is used as an indicator of the success of the learning process; (2) implementing actions, implementing learning that has been scenarios objectively, systematically, critically, and consciously through the modification of 3 on 3 games; (3) observation, during the learning process takes place the researcher observes the subject under study as the executor of the study; (4) analysis and reflection, the result data obtained while using the 3 on 3 game modification media is analyzed and reflected that with the game modification media it has a positive effect on student learning outcomes in the passing passing material.

The data collection instrument used a 60 second under test for students aged 15-17 conducted at the end of the game. In each cycle, the teacher takes the value of the under passing skill using a bottom passing test where students do the bottom passing individually for 60 seconds, which aims to find out how many times the ball can be passed in that time. The bottom pass that is considered correct is calculated when the ball reaches the minimum ball height, which is 2.30 meters for men and 2.15 meters for women and is carried out in an area within 60 seconds (Ministry of National Education, 1999).

Data analysis of student learning outcomes is done by taking the value of the lower passing technique that has been done previously by calculating the value of skills tests by looking at the Assessment Benchmarks, which are then analyzed using descriptive statistics that refer to the magnitude of the students' Minimum Completion Criteria. Students are declared complete if the student's score and the class average reaches a minimum passing grade criteria of 75.

Results and Discussion

Based on the results of the implementation of the pre-cycle which was carried out on high school 10th grade students, when learning volleyball under passing material, the percentage of mastery learning reached 36% with an average score of 68.6. Only 9 students achieved the Minimum Mastery Criteria (see Table 1 and Figure 1). Because at the time of pre-cycle many students have not been completed, then proceed to the cycle 1 stage.

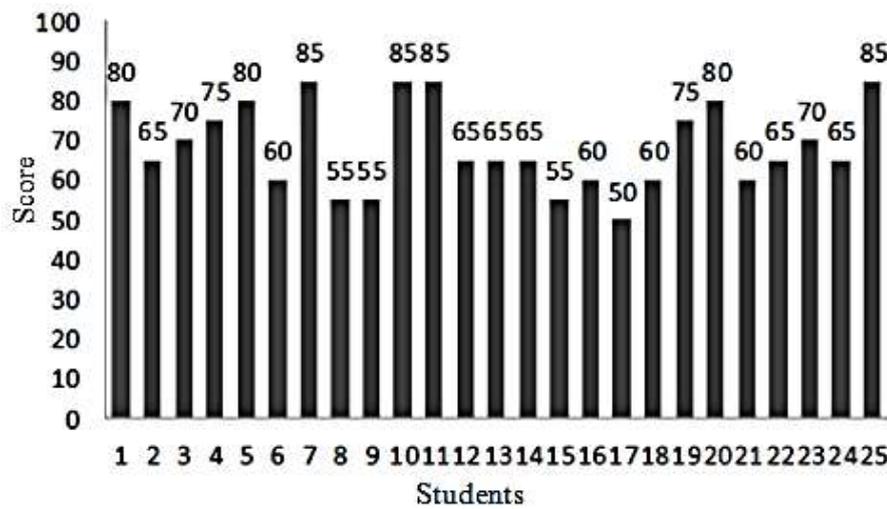


Figure 1 Student Achievement Score During Pre-cycle

In cycle 1, the Minimum Mastery Criteria students increased with a percentage of mastery levels reaching 56%, accompanied by an increase in the average value of the class which reached 76.4 . With details as many as 14 students who reach the Minimum Mastery Criteria and 11 students who have not reached the Minimum Mastery Criteria. From the average score of cycle 1, the Minimum Completion Criteria class has been reached because it has passed the number 75, as specified (see Table 1 and Figure 2).

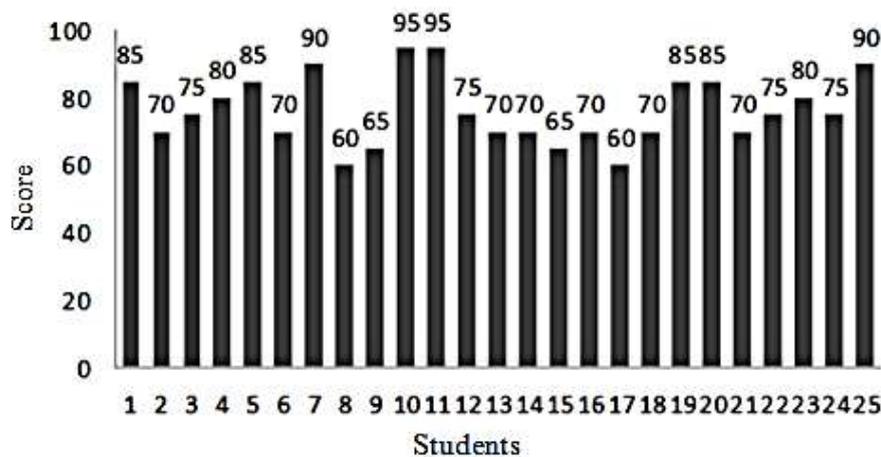


Figure 2 Acquisition of Student Score in Cycle 1

In the results of cycle 1, it can be concluded that the Minimum Completion Criteria of the overall class has passed the specified value, where the average value of the class reaches 76.4. However, with the percentage of completeness level that reaches 56% of the total number of students, it can be said that there are still many students who have not been able to reach the minimum Minimum Mastery Criteria set. A total of 11 students (44%) are arguably still too high for the number of students who have not yet finished. Therefore, the researcher decided to continue using the 3 on 3 game modification media for passing material down to Cycle 2.

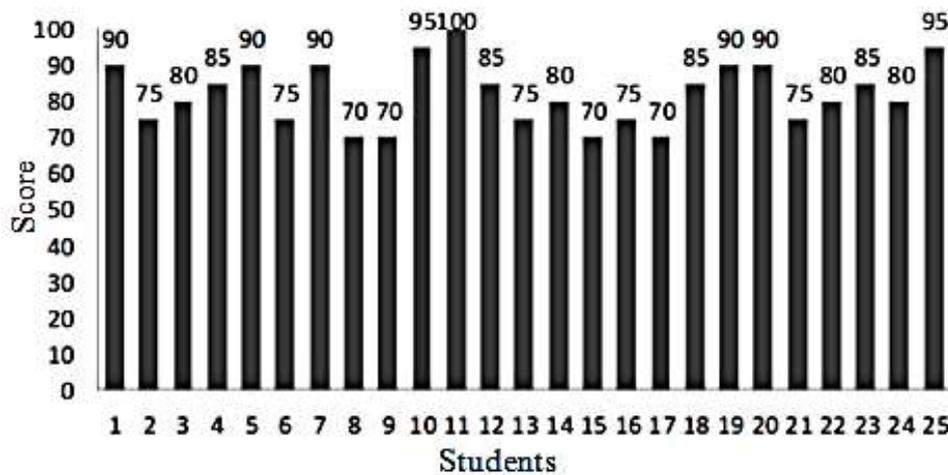


Figure 3 Acquisition of Student Score in Cycle 2

In the implementation of cycle 2, an increase in the average grade reached 82.2 and the percentage of completeness reached 86%. With the details of 21 students were able to reach the Minimum completeness Criteria limit (Table 1). From the results of the three cycles that have been described above, it can be concluded if the use of game modifications 3 on 3 for material passing under volleyball is successful. This refers to the percentage of completeness in Cycle 2 that reaches 86% of completeness.

Table 1 Data Frequency Distribution

Activities	Average score	Criteria	Number of Students	Percentage of Mastery Levels
Pre-cycle	68.6	Complete	9	36%
		Incomplete	16	
Cycle I	76.4	Complete	14	56%
		Incomplete	11	
Cycle II	82.2	Complete	21	86%
		Incomplete	4	

Based on the results of the three cycles above, it is shown that the packaging of modified learning materials has an impact on students who like learning that are oriented to the game and are able to provide significant changes to the improvement of students' movement skills. This is caused because in the present time most teachers still use learning patterns that are less able to attract students to participate in learning. Where only by providing material with methods that are too monotonous, does not provide innovation in the learning process. Seeing this condition makes volleyball game material not going well where not all students already have good basic technical skills. The results of this study are reinforced by what was done by Pambudi (2015) that the results of passing under students increased after the application of the game method. Likewise with the results of Yusmar's research (2017) which shows that improving the basic technical skills of volleyball can be improved through game modification.

Learning that is packaged with this method of playing is able to provide opportunities for students to recognize themselves and to what extent mastery of basic techniques and provide opportunities to improve on having good basic techniques. By providing a modified game method, giving students the opportunity to develop according to the stages of their abilities. That way, will also contribute positively to the acquisition of the final value. This is because basic technical skills have certain provisions in order to be able to do the skills properly. The achievement of a skill is influenced by many factors, namely: (1) teaching and learning process factors; (2) personal factors; and (3) situational / environmental factors (Ma'mun, Amung, and Yudha, 2000). Fun learning and good cooperation will change the boring learning situation to a more pleasant direction so that students increase their interest and motivation in learning. Learning is the process of changing students from lower ability levels to better ability levels. So that an increase in students' interest in learning has a major contribution to learning success (Subekti, Hanief, and Mashuri, 2018). Attracting interest in learning not only provides reinforcement to students, but by packaging the learning in such a way as to facilitate students in free-directed movement (Rithaudin and Hartati, 2016).

Conclusion

Based on the results of research that has been carried out, the use of media modification game 3 on 3 in volleyball learning under passing material can provide an increase in student learning outcomes, even with the achievement of a high level of completeness. The results of this study are also expected to help sports subject teachers to be able to innovate more in order to improve student learning outcomes with a variety of learning modifications to other learning materials. Other researchers are also expected to be able to conduct further research using materials outside of volleyball learning.

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