

Development of Volleyball Learning Model to Improve Forearm Passing and Overhead Passing Skills of the Eighth Grade Students



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ABSTRACT: This research aims to: (1) Develop a volleyball learning model to improve the forearm and overhead passing skills of the eighth grade students. (2) Figuring out the level of feasibility of the volleyball learning model to improve the forearm and overhead passing skills of the eighth grade students. (3) Figuring out the level of effectiveness of the volleyball learning model to improve the forearm and overhead passing skills of the eighth grade students. This research was a development research using the ADDIE development research model which involved the stages of model development with five development steps/phases including analysis, design, development or production, implementation, and evaluation. Validation was conducted by experts in their fields. The trials consisted of smallscale trials, large-scale trials, and effectiveness tests. Research data collection techniques used questionnaires and AAHPER face pass wall-volley test. The data analysis technique used the Wilcoxon test with the help of SPSS 25 for Windows software. The result of this research is to create a volleyball learning model for the eighth grade students of junior high school which is developed and packaged in the form of a book. The volleyball learning model developed is classified as "proper" and "valid" based on the results of the validation by the experts. The results of the product effectiveness test using the Wilcoxon test gain an average pre-test passing score at 29.77 and a mean post-test passing score at 35.17, an average passing pre-test score at 32.13 and an average passing post-test score at 35.89 with an Asymp-Sig.(2-tailed) value of $0.000 < 0.005$. These results indicate that there is a difference between pre-test and post-test. Based on the results of this analysis, it can be concluded that the forearm and overhead passing skills of the eighth grade students improve after learning volleyball.

KEYWORDS: learning, volleyball, skills, passing, students

INTRODUCTION

Physical education, sport and health is an educational process through physical activities aimed at improving physical fitness, developing motor skills, knowledge and behavior for a healthy life. Strong and dynamic, sportsmanship and emotional intelligence. Physical education, sports and health activities are systematically selected and planned to achieve national educational goals. The physical, sports and health education taught in schools is crucial in ensuring that students are directly involved in a variety of learning experiences through physical activity. Physical education, sports and health activities are systematically selected and planned to achieve national educational goals. Physical education, sports and health are important to learners because in today's globalization era, learners can easily access information by means of communication such as: mobile phones and personal computers (PCs). Learners can spend hours and hours glued to communication devices, which makes students inactive and becomes a problem for students, as it can reduce the level of physical training, fitness, sports and children's health. Important role through aspects content such as: cognitive, emotional, and physical in learning, exercise, sport and health at school.

Physical, sports and health education is a part of the national education aimed at physical, mental, emotional and social Development, and a healthy lifestyle. The vital role that physical education, sport and health are taught in schools is to provide opportunities for students to participate directly in a variety of learning experiences through physical policies. Sports and health are done systematically. The provision of learning experiences promotes better physical and psychological development, as well as the formation of a healthy lifestyle (Jariono et al., 2020). According to Lubis and Agus (2017:59), "Physical activity, play and sport are systematically practiced, learned and experienced in order to support and form a healthy and active lifestyle throughout life". In PE teachers, sports and health teachers must be able to adjust teaching materials according to the circumstances, conditions and characteristics of students, of course each student has a unique character in behavior.

The sports skills acquired in the process of learning exercise, sports and health will provide strength and nourish the soul,

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Body, form a healthy, intelligent and creative personality to find the way. escape from all complex problems. Physical education, sports and health should be carried out as an effort to develop healthy living habits through learning that engages students' attention and interest, so that physical activity is utilized as a necessity. The learning materials are classified according to each stage, from simple to complex, lightest to heaviest, easiest to hardest.

Academic innovations are always aimed at improving the quality of learning and student learning outcomes. Various approaches and strategies are implemented to further enhance students' potential. In the learning application, the teacher can provide materials about the big ball game. In addition to developing and improving skills, the big ball game can also make students happy to do motor activities. For this reason, in addition to meeting academic goals, their motor needs are also met and, of course, students' motor skills will increase when playing big ball games. In the implementation of teaching in schools, teachers should choose an attractive form of learning, and at the same time and a variety of movements so that students can easily perform complex movements in accordance with learning materials. Middle School PE, especially in grade 8, is graded by students.

An interesting learning model and the addition of a wide range of movements will keep students interested in learning. In addition to being able to develop and perfect skills, learning goals are achieved, their mobility needs are also met, and, of course, students' physical health will be better. " Learning done by adding fun games will make students more excited and not get tired or bored easily " (Revandhani 3:2018). Therefore, when building a learning model, it must be creative, effective and effective, such as applying variations in the game and adding variations of moves, because when applying variations in the game and adding variations in movement, students will not only have fun but learn, but will also develop their skills and physically improve their progress.

This study will focus on learning volleyball, especially to improve forehand and forehand passing skills. In learning Volleyball, students' lower and upper passing skills are still very lacking. Students quickly get bored of participating in the class, so they cannot fully achieve their learning goals. In learning volleyball, many people have not yet built games and variations to improve their forward and forward passing skills, stimulating students to be more interested in learning. Volleyball learning is always done according to the command method, whereby students are served and guided in forward and forward passing movements. The techniques used are also monotonous, not given through the game, so that students are more interested in learning.

From the results of observations and interviews conducted by researchers at universities, there are a number of problems in this area as evidenced by the results of observations and interviews at universities, specifically: SMP Maarif Imogiri and SMP Muhammadiyah 2 Kalasan. The result is:

Firstly, on the issue of learning exercise, sports and health, specifically the basic volleyball skills learning materials for middle school students, teachers have not found an effective method to impart each ball skill. basic volleyball for 8th graders. According to the results of field observations and interviews, the teaching of basic volleyball techniques lacks diversity, which can be proved on the basis of actual observations that teachers' instructors only teach basic techniques of volleyball games with simple method. provide basic technical equipment in volleyball lessons, but teachers still apply the way students achieve when learning volleyball in pairs with friends. However, physical education, sports, and fitness learning are not always effective with a simple peer-to-peer model. Providing learning materials with games can be an option. new options for teaching the basic techniques of the game of volleyball.

Secondly, ineffective learning causes the length of learning time is not fully used 2x40 minutes, because it is cut off by preparation before and after learning.

Third, provides an unchanging learning model that makes students feel bored and do not want to participate in learning, different from students who love sports and always want to be active. Of course, this unbalanced view won't look good. Student activity in learning engagement should certainly be done by all students, not just a few.

Fourth, the basic technical ability to pass is not good, which will affect the quality of the game . The teaching of volleyball lessons for 8th graders in middle school is not diverse, leading to poor passing skills. Many factors affect passing skills in volleyball. Poor serving and serving technique in volleyball should be attributed to the factors that cause them, which can be due to poor mastery of the basic techniques, inadequate fitness, or ineffective training methods., etc. The condition is that the teacher must be able to evaluate all factors of both the teacher and the students participating in volleyball. The researchers received feedback on developing a volleyball learning model to improve forehand and forehand passing skills, in which students take a more active role and can develop their abilities. pupil.

Different types of problems occur in schools and each school has different problems. In this case, the researcher intends to develop a learning style that focuses solely on the underpass and overpass material of the subject. Volleyball. The situation in this area shows that fitness, sport and health learning has not gone as expected and expected due to the provision of appropriate

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learning materials to students in the eighth year of the cycle. first of high school, and the teacher's performance must be really effective and efficient to achieve what is expected. Regarding this issue, it is very necessary to study carefully, deeply, and reclassify the correct pattern and method for the learning process, especially the technique of underplaying and passing in volleyball. So, through this research, hope to get the right solution or answer for teaching and passing volleyball to junior high school students. " Volleyball is a sport aimed at improving physical fitness and developing athletic performance, so efforts to improve and develop volleyball learning outcomes must be applied to enhance desired performance. " (Ferguson in Budiarti & Hanif, 2016). The building of this volleyball learning model will be developed with the aim of helping students progress further in their learning and improving their under and overpass skills. To achieve these goals, student learning should address increased student activity and engagement. The learning achieved must be effective and efficient in order to achieve good learning goals, and at the same time, must be able to create comfortable learning conditions for students to study.

The study of volleyball for 8th graders in lower secondary schools needs to be further studied so that students can learn in accordance with the learning goals to be achieved. Learning volleyball requires complex movements, while learning physical education, sports and health. Teachers provide materials suitable for learning goals, but each individual student has different ability levels. Therefore, the students' motor skills in learning volleyball are still not good. In this study, model building will be carried out in the process of learning volleyball equipment, thereby hoping that students will get interesting and easy-to-implement volleyball equipment for students, at the same time, can improve the quality for lower students in higher grades. passing skills.

This research on building a volleyball learning model will contribute to building a learning model, especially for students of grade 8 in lower secondary schools. The end product of this research should be able to bring about changes in volleyball learning, as learning must be able to keep students active and well engaged, so that academic goals at school are met and achieved, and at the same time bring positive benefits to students in the process of participation in other courses. In this study, it is hoped that building a volleyball learning model can improve lower and upper passing skills, and at the same time, increase students' interest in participating in volleyball in junior high school, especially 8th graders.

Based on the above description, the problem is that in volleyball learning, students' lower and upper pass skills are always lacking. Due to the lack of playing and modification in the instrument description, it is difficult for students to perform the lower pass, pass through. lower and upper pass movements in volleyball learning, so it is necessary to build a volleyball learning model to improve students' lower and upper pass skills so that volleyball learning is most effective, the goal learning is also achieved. Physical education, sports and health are said to be able to make a difference in the learning of volleyball, more diverse and not monotonous in their application. The aim is to encourage students to move more actively and to anticipate the boredom that students often experience, and especially to improve their bottom and top passing skills by taking volleyball lessons at school.

RESEARCH METHODS

This study uses a research and development approach. Research and development according to Sugiyono (2016:47) is a research method used to create several product designs, testing the effectiveness and validity of the designs so that the product can be tested and can be used by the public. The production of some products is usage research, needs analysis, and effectiveness testing for the product to be used by the community.

The ADDIE (Analysis, Design, Development, Implementation and Evaluation) method was used in this study because it is easy to learn, simple and systematic. This model has five interrelated and systematic components, which means that the model must be used consistently and cannot be randomised in its application. Since the model is simple and systematically structured, it is easier to apply and understand.

DEVELOPMENT PROCEDURE

Research and development in this thesis uses the development process based on the theory of Lee & Owens (Sugiyono, 2016:410) uses five phases in a cycle, which is ADDIE (Analysis, Design, Development, Implementation, and Evaluation).

TEST SUBJECTS

Research object is the goal in the process of using the product. The subjects of the study were 8th graders in secondary school. The subjects of this study were divided into three subjects, namely, as follows.

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SMALL SCALE TRIAL SUBJECTS

The study was conducted on a small scale, to determine the errors and feasibility of the volleyball learning model. In this study, the experiment used 1 teacher and 47 8th grade middle school students. Topics were selected based on the number of sports teachers and eighth graders. The results of the small-scale trial will be used to correct gaps in the development of a volleyball learning model to improve upper back passing skills, in order to obtain a final product that matches pupils.

LARGE-SCALE TEST SUBJECTS

The subject of the comprehensive lawsuit is Muhammadiyah 2 Kalasan High School. This topic is different from the topics used in the small-scale test. A large-scale trial of developing a volleyball learning model to improve forehand and forehand passing skills begins with an assessment of the fitness of the volleyball learning model for students. The assessment was conducted by 1 sports teacher and 60 middle school 8th grade students.

EFFECTIVENESS TEST SUBJECT

Efficacy testing was carried out at Maarif Imogiri High School. The effectiveness test was conducted to determine the effectiveness of the volleyball learning model in improving the lower and upper passing skills of middle school 8th graders. The effectiveness test used 47 students as respondents. Data was obtained through experiments pre-test and post-test. Learners are given feedback on underpasses and overpasses before changing the game and overpasses to measure the effectiveness of this model. The effectiveness test will detect the effectiveness of the volleyball learning model in improving a student's forehand and forehand passing skills.

DATA ANALYSIS TECHNIQUES

The initial draft of the model is considered suitable for testing at small and large scales if experts have validated the tool and can test it. The obtained data is then calculated and the result obtained as a percentage. Processing the feasibility of data in the questionnaire described by Sugiyono (2016:93) as follows.

$$P2 = \frac{\sum X}{\sum Xg} 100\%$$

Caption:

P2 : Eligibility Percentage

$\sum X$: Total number of Answer

$\sum Xg$: Total Ideal Score in one Item

100% : Constant

Table 1. Eligibility Score Criteria

No	Category	Percentage
1	Verygood	81% - 100%
2	Good	61% - 80%
3	Simply	41% - 60%
4	Less	21% - 40%
5	Veryless	0% - 20%

To decide the viability of the product, 16 gatherings were held by giving learning materials from the item. This last item test is to decide whether an item that has been delivered is doable and has focal points within the level of execution within the field. Sometime recently, the theory test, a prerequisite test was carried out, typicality test, and homogeneity test. Ordinariness test to decide whether the information is regularly dispersed or unusually disseminated. In the information is ordinarily disseminated, the information is analyzed utilizing the t-test. The Wilcoxon test is carried out in case the information gotten isn't normally distributed. According to Widarjono (2015:228), "the Wilcoxon test could be a measurable test of the distinction between two tests of information which is information on an ordinal scale and not ordinarily disseminated". Judging from the coming about of all these exploratory strategies, changes within the upper and lower passing abilities of understudies will be gotten due to the use of the volleyball learning show in the volleyball learning demonstrate is really attainable and effective.

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RESEARCH RESULT AND DISCUSION

Table 2. Wilcoxon Test for Lower Passing

	N	Min	Max	Mean	Std.
Pretest Lower Passing	47	21	50	29.77	6.318
Lower Passing Posttest	47	25	60	35.17	7.528
Valid N	47				

Table 3. Test Statistics of Lower Passing

	Pretest Lower Passing Lower Passing Posttest
Z	-6.006 ^b
Asym Sig (2-Tailed)	.000

Based on Table 2 and Table 3 over, $P = 0.000 (<0.05)$, it can be concluded that there's a distinction within the lower passing aptitudes of eighth review junior high school understudies between the pretest and posttest. The cruel pretest score was 29.77. After understudies were given a volleyball learning show to progress the lower and upper passing aptitudes of eighth review junior high school understudies, the cruel posttest score was 35.17. Based on these comes about, it can be concluded that the students'lower passing aptitudes have "progressed" after learning volleyball, agreeing to the item made.

Table 4. Wilcoxon Test for Upper Passing

	N	Min	Max	Mean	Std.
Pretest Upper Passing	47	21	55	32.13	7.258
Upper Passing Posttest	47	25	60	35.89	7.399
Valid N	47				

Table 5. Test Statistics of Lower Passing

	Pretest Lower Passing Lower Passing Posttest
Z	-6.028 ^b
Asym Sig (2-Tailed)	.000

Based on Table 20 and Table 21 above, $P = 0.000 (<0.05)$, it can be concluded that there is a contrast in the outstanding ability of students taking the eighth college entrance exam between the pre- and post-test. exam. The merciless test score is 32.13. After the students received a volleyball learning program to improve the bottom and top pass skills of college review students for the eighth time, the post-test dire score was 35.89. Based on this result, it can be concluded that the students'higher passing skills are "improved" after learning volleyball, which is consistent with the goal achieved.

Based on the test results, it can be concluded that it is "feasible" to learn volleyball to gain passing and passing skills from Middle School 8th Amendment students. use live volleyball learning work. Based on the feasibility test, there appears to be a "change" in the students' bottom and top passing skills after using this volleyball learning demonstration. It can be concluded that the improvement in volleyball learning demonstrates that the 8th grade high school students'lower and upper pass abilities are "feasible" for use in volleyball learning.

CONCLUSION AND SUGGESTIONS

Based on the research results and data analysis results that have been done, it is concluded that through the research and development approach using the ADDIE (Analysis, Design, Development, Implementation and review), a volleyball learning model was produced. with the aim of improving the low- and high-average skills of middle school 8th graders, through a five-stage

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development phase, namely analysis, design, development, implementation and product efficacy testing. The building of a volleyball learning model to improve the lower and upper pass skills of 8th graders in lower secondary schools is considered "valuable" by experts / appraisers. The development of the volleyball learning model was deemed "feasible" for use as a volleyball learning guide in order to improve the bottom and top passing skills of 8th grade middle school students. The construction of the model. Learning volleyball to improve lower and upper passing skills of 8th graders in Middle School has shown "effectiveness" in improving lower and upper passing skills of 8th graders in Middle School.

Some suggestions that the author can give to use the products from this study include for teachers, building a volleyball learning model to improve lower and upper passing skills of middle school students from the future 8th grade can add more educational knowledge about the importance of improving students' skills, especially through learning to play volleyball. For students, building a volleyball learning model to improve junior and senior passing skills of junior high school students in grade 8 can be used as a guideline or guide to practice passing skills. subordinates and superiors in volleyball and in the future can motivate students. in the implementation of learning volleyball at school.

REFERENCE

- 1) Ade Evriansyah Lubis, Muhammad Agus. (2017). Improving Learning Outcomes of Upper Passing in Volleyball Games Through Variations in Learning for Junior High School Students. Indonesian Journal of Physical Education. 58-64.
- 2) Budiarti, W. W., & Hanif, A. S. (2016). *Volleyball Smash Learning Model for Middle School Students*. 239–244.
- 3) Fauzan Robby Revandhani. (2018). Development of volleyball lower passing learning model at *Smp N 2 Nanggulan Kulon Progo Using Games*
- 4) Ferguson, B., L., V. and B. J. (2010). *Volleyball Step to Succes Second Edition*. Canada: Human Kinetics.
- 5) Jariono, G., Fachrezzy, F., & Nugroho, H. (2020). *Application of Jigsaw Type Cooperative Learning Model to Improving the Physical Exercise Students Volleyball at Junior High School 1 Sajoanging*. 2(5).
- 6) Sugiyono. 2016. Quantitative, Qualitative Research Methods dan R&D. Alfabeta. Bandung.



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