

THE DEVELOPMENT OF OVERHEAD PASS LEARNING MODELS IN VOLLEYBALL

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Abstract

This study aims to develop a learning model of overhead pass volleyball for class VIII junior high school students. This study uses research and development research methods with the ADDIE model (Analysis, Design, Development or Production, Implementation or Delivery and Evaluations). The subjects in this study were students of Junior High School No 1 Palembang Class VIII in 2018/2019. Qualitative and quantitative data analysis techniques. This research was conducted up to the development stage, namely large-scale trials. The validation of this model of overhead pass was carried out by experts in physical education, volleyball game experts, and linguists. The results of the model validation (Design stage) of this top learning model obtained a percentage of 87.5% of Physical education experts, 90% of volleyball game experts, and 87.5% of linguists from the results of expert validation show that the learning model is the top volleyball game Valid or worth using. The development stage consists of one-on-one evaluations, small group trials, and large group trials. The results of the large group trial were obtained using the instrument of the upper pass motion assessment process, the percentage was 12.5% or 3 students were very good, 87.5% of students got good grades or as many as 21 students. Based on large group trials, the product in the form of a learning model for volleyball can be used in the volleyball learning process. For further research, it can test the effectiveness of the development of the passing over model so that it can be seen the effect of this model when used in volleyball learning.

Keywords: *Learning Model, Overhead Pass, Volleyball Game*

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INTRODUCTION

Learning is a process of regulating, organizing the environment around students so that it can grow and encourage students to carry out the learning process, learning is said to be a process of providing guidance and assistance to students in carrying out the learning process (Pane & Darwis Dasopang, 2017). The quality of physical education learning and is determined by various factors,

one of which is the ability of teachers to teach and assess students, without having these two abilities, physical education teachers will find it difficult to realize the effectiveness and efficiency of teaching which impacts on the difficulty of achieving maximum physical education learning goals. Therefore, physical education teachers must understand the mastery of this knowledge (Tomoliyus, T., Margono, M., & Sujarwo, S, 2013). One of the materials in physical education learning is volleyball.

Volleyball game is an educational sport, recreation and achievement sport, as an educational sport, volleyball game is taught through the learning process of physical education, sports and health. Facts in the field show that students experience difficulty and disinterest in participating in the volleyball learning process. So that the game can provoke student participation, there needs to be a development and modification of the volleyball game. On the other hand, modifications must also be made in relation to the facilities and infrastructure. Thus, the challenge of developing volleyball in students at least boils down to the development of a volleyball learning model. *Volleyball is characterized as a ball game that requires biomechanical demands upon the musculoskeletal system as well as great deal of neuromuscular coordination, speed, agility, and power. Passing, setting, spiking, blocking and serving the ball are fundamental movements in a volleyball game, which requires implementation of various vertical or horizontal jumps, and speed actions. It has been suggested that volleyball players competing in better performing teams, have higher vertical jump values* (Ikeda, Sasaki, & Hamano, 2018). Teknik-teknik dalam permainan bola voli adalah seperti smash, blok, passing atas, passing bawah dan servis atas dan servis bawah.

Previous research on the development of the upper pass model, namely (Rohendi, 2020) where the development of a learning model for playing volleyball based on the results of his research on the game of volleyball increased using this model, then research from (Destriana, 2019) it can be improved through double-control upper pairing exercises in pairs, then other research on volleyball, namely (Marsiyem, Destriana, & Pratama, 2018), regarding the

development of a lower pass learning model which is able to improve lower pass learning outcomes, beside that (Pratiwi & Anggara, 2021) in the underpass model of volleyball for beginner athletes, students of UNISKA MAB Banjarmasin, has received a positive response and can be applied to beginner athletes of UNISKA MAB Banjarmasin students, next research (Daryono & Almy, 2021) on self-check style affects the results of volleyball skills, based on the results of research that has been done there is an increase in volleyball playing skills through shelf check style training, an increase in volleyball service skills, an increase in passing skills and an increase in volleyball smash skills. Previous research on upper passing has not seen any research on the development of overhead pass learning for junior high school students, so this study will develop a overhead passing learning model of volleyball in Class VIII students at Junior High School No 1 Palembang. The development of the upper passing learning model was carried out because seeing the problems in top-fitting learning that occurred in the field, it was seen that students did not master the overhead pass technique, looked lazy and were not serious in participating in overhead pass learning, based on this field analysis there was a need for solutions in addressing them.

The learning model for volleyball playing which is developed will be more in line with the characteristics of junior high school students, because the concept of the passing learning model for playing volleyball is designed to assist students in developing upper passing skills. The passing learning model for this volleyball game emphasizes a fun learning experience and is in accordance with the characteristics of students. The research aims to develop a learning model for volleyball playing in class VIII students, with this research it is hoped that it can be used by PJOK teachers as an additional learning model that can be used in volleyball games, especially the upper pass model.

METHOD

The research method used in this research is research and development. Development steps use the ADDIE model according to Branch (2009: 2), namely ADDIE stands for Analysis, Design, Development or Production, Implementation

or Delivery and Evaluations. This research is at the Development stage. This research uses quantitative and qualitative data analysis techniques. Quantitative data is shown in managing validation result questionnaires and observations and qualitative data based on input and suggestions from expert validation on product design. By using a questionnaire instrument as a data collector of validation results and observations to see the validity of the fitting model for volleyball. This research was conducted in the march–may 2019 year class VIII as respondents to the trial totaling 24 students. This study uses a purposive sampling model because it is in accordance with the research objectives.

RESULT AND DISCUSSION

RESULT

The initial stage of this research is analysis. In this study, the results of the analysis obtained the following results:

Table 1. Field Analysis Table

No.	Question Points	Findings
1	What is provided in the learning process of passing over class VIII in volleyball for students who take volleyball game material?	The teacher provides learning material for passing over during volleyball learning
2	Is the passing learning material for class VIII delivered in a variety of ways during the volleyball game material?	Learning is done in a manoton and less varied
3	Are the facilities and infrastructure available for overhead pass class VIII in volleyball?	It is quite good that there are facilities and infrastructure used by the volleyball field and the tools used to support learning of overhead pass

No.	Question Points	Findings
4	How is the application of the passing learning model for class VIII in volleyball games commonly done?	Good enough but less varied in implementation.
5	How is the student's motivation when the material passes over class VIII in volleyball?	Students seem not very motivated in participating in learning because the material is monotonous.
6	Are there any efforts made by the teacher in dealing with problems that arise in learning overhead pass volleyball?	So far, the teacher only provides a limited learning model, students are only given a few learning models in the material, the teacher emphasizes more on game model exercises, the teacher has not provided interesting learning variations that can improve the quality of the top-level results.
7	Is it necessary to develop overhead pass learning model for class VIII in volleyball?	In general, teachers need a variety of learning models that can be used in learning that can provide comfort and safety and maximum results in the process and each material..

The next stage is the design stage where the upper pass developed consists of 12 overhead pass models, the models developed are as follows:

- a. Overhead pass learning model without the ball in place

- b. The learning model of overhead pass forward 3 steps to touch the cone without the ball
- c. Learning model of overhead pass 3 steps backwards touching the cone
- d. Learning model overhead pass left side 3 steps touching the cone
- e. Learning model overhead pass right side 3 steps touching the cone
- f. Overhead pass passive learning model with the help of friends
- g. Overhead pass learning model in place using a ball
- h. Overhead pass learning model moves forward 3 steps to touch the cone with the help of using a ball
- i. Overhead pass learning model moves backward 3 steps to touch the cone with the ball with the help of a friend
- j. Overhead pass e upper pass learning model moves to the left side 3 steps to touch the cone with assistance
- k. Overhead pass learning model moves to the right side 3 steps to touch the cone with assistance
- l. Overhead pass learning model while walking forward

The 12 models that have been designed are then validated by 3 experts, namely Physical Education, Sports and Health (experts, volleyball game experts and linguists). The validation results were obtained as follows:

Table 2. The results of the assessment of the volleyball expert validation "development of a learning model of overhead pass volleyball games for Class VIII Junior High School"

No	Declaration Number	Σ	Maximum value	Percentage (%)	Category									
						1	2	3	4	5	6	7	8	9
Ex			40	87,5%										
1	1	4	4	4	3	3	3	3	3	4	4	35		

$$\begin{aligned} \text{Percentage} &= \text{amount} / \text{Maximum value} \\ &= 25/40 \times 100\% \\ &= 87,5\% \end{aligned}$$

Table 3. The results of the expert validation assessment corner "the development of a learning model of overhead pass volleyball games for Class VIII Junior High Schools"

No	Ex	Declaration Number										Σ	Maximum value	Percent age (%)	Category
		1	2	3	4	5	6	7	8	9	10				
1	2	4	4	4	4	3	3	3	3	4	4	36	40	90%	

Percentage = amount / Maximum value

$$= 36/40 \times 100\%$$

$$= 90\%$$

Table 4. The results of the linguist validation assessment "development of the overhead pass learning model of volleyball game for Class VIII Junior High School"

No	Ex	Declaration Number										Σ	Maximum value	Percent age (%)	Category
		1	2	3	4	5	6	7	8	9	10				
1	3	4	4	4	3	3	3	3	3	4	4	35	40	87,5%	

Percentage = amount / Maximum value

$$= 25/40 \times 100\%$$

$$= 87,5\%$$

The next stage is the development stage which consists of one-on-one trial steps, small group trials and large group trials. The one-on-one test resulted in the following results:

Table 5. Testing one on one

No	Statement	Yes	No
1	The teacher / teacher can teach the development of a learning model with basic overhead pass movements without a ball in a volleyball game	√	
2	The teacher / teacher can teach the development of a learning model with basic overhead pass motion without	√	

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- the ball by moving forward and backward touching the volleyball game cone
- 3 The teacher can teach the development of a learning model with the basic overhead pass motion without the ball by touching the cone of the volleyball game to the left and right. ✓
 - 4 The teacher / teacher can teach the development of a learning model with basic overhead pass movements with a ball in a volleyball game ✓
 - 5 The teacher / teacher can teach the development of a learning model with basic overhead pass motion with a passive ball with the help of volleyball ✓
 - 6 The teacher / teacher can teach the development of a learning model with basic overhead pass motion with the ball moving back and forth touching the cone with volleyball. ✓
 - 7 The teacher can teach the development of a learning model with basic downward motion with the ball moving to the right and to the left touching the cone with a volleyball game. ✓
 - 8 The teacher / teacher can teach the development of a learning model with basic overhead pass movements with the ball running forward in a volleyball game ✓
 - 9 The teacher / teacher understands the rules of the overhead pass learning model developed ✓
 - 10 The teacher / teacher can implement the overhead pass learning model developed in accordance with existing steps ✓
 - 11 Ladies and gentlemen are familiar with the tools used in the overhead pass learning model that was developed ✓
 - 12 Ladies and gentlemen can bring out the value of ✓
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- cooperation between students
- 13 Overhead pass learning model developed can improve the skill of passing volleyball ✓
- 14 Ladies and gentlemen like the development of the overhead pass learning model ✓
- 15 The overhead pass learning model developed is able to develop active student movements ✓
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The presentation of the value of one to one physical education teacher was obtained:

$$12/15 \times 100 = 80\%$$

The next stage is testing small group products. The results obtained are as follows:

Table 6. Percentage of results of overhead pass model observations

Value	Number of student	Category	Percentage
86-100	1	Very good	8,33%
71,00- 85,99	9	Good	75%
56,00-70,99	2	Enough	16,67%
41,00-55,99	0	Less	0%
<40,99	0	Very less	0%

The final next stage of development is large group product trials. The results obtained are as follows:

Table 7. Percentage of the results of the observation of the overhead pass model

Value	Number of student	Category	Percentage
86-100	3	Very good	12,5%
71,00- 85,99	21	Good	87,5%

56,00-70,99	0	Enough	0%
41,00-55,99	0	Less	0%
<40,99	0	Very less	0%

DISCUSSION

The development of the upper passing learning model uses the research and development method with the ADDIE instructional design. ADDIE stands for *Analyze, Design, Development, Implementation and Evaluation* (Aldoobie, 2015; Branch, 2010; Drljača & Latinović, 2010; Hishamudin, 2016; Hsu, Lee-Hsieh, Turton, & Cheng, 2014; Kurt, 2017). The research begins with conducting a needs analysis by identifying problems in accordance with problems in the skills or knowledge fields of students (Cheung, 2016), In addition, the ADDIE analysis phase begins with a teaching problem that produces a careful view of the student population and student characteristics (Hess & Greer, 2016).

The volleyball development model is based on previous research, namely the development in the development of lower-fitting instruments in volleyball games (Daulay & Daulay, 2018; Pranopik, 2017) previous research, namely developing smash techniques in volleyball games with research and development research and development (R&D) methods. This research begins with a needs analysis by making observations, the results of the observations show that in the learning process of volleyball, especially the material fitting for the problems faced, namely the difficulty of students doing top passing, students when participating in learning activities of passing over volleyball games students seem to have difficulties. do these movements, so that the desire of students to pass over is reduced, this causes students to be less able to do top passes properly. *In volleyball, the overhead pass is an important skill for passing a ball and making a set to attackers. In the present study, we analysed the overhead pass motion and involved muscle activity with special attention to the stretch-shortening cycle (SSC), Overhead pass is characterised by the movement in which the wrist is first dorsiflexed with a dropping ball and then flexed to push the ball (Ozawa, Uchiyama, Ogawara, Kanosue, & Yamada, 2019), and this occurs because the*

elastic energy stored in the muscle and tendon during the eccentric contraction can be utilised (Padulo et al., 2013). Currently, how to teach upper pass skills is not necessarily evidence-based because the upper pass movement has not been analyzed, although the order of other movements in volleyball such as attacking, jumping and blocking is clear. (Ficklin, Lund, & Schipper, 2014; V., T., G., M., & E., 2010). Problems occur because things such as the lack of variation in teacher teaching techniques, teaching material sources and learning media are said to be very few, then literacy analysis where there is still a lack of learning techniques to teach top service, then the corner teacher needs analysis really requires recorded teaching steps so that can teach top serve technique well.

The second stage in this research is product design starting from designing goals to be achieved in the learning process, and formulating goals to be achieved besides that the design / design phase helps to focus and improve the researcher's efforts and create designs where they can then build teaching content. an interesting and learning experience (Hess & Greer, 2016). The goals in this case lead to the development of courage, independence, and motor development of children in the field, including; planning the preparation of learning technique materials for learning, planning the use of effective language, planning procedures for implementing top-level techniques, planning for experts in their fields, and planning the learning process or daily activity plans so as to examine instructional goals, these instructional objectives are obtained based on the learning implementation plan so that it is in accordance with the learning provided by sports and health physical education teachers. This study presents 3 experts in validating the development model of learning passing over volleyball, namely; physical education, sports and health specialist, and volleyball expert and linguist. The results of the research on this design resistance showed that the learning model for this learning process obtained a percentage of 87.5% of Physical education experts, 90% of volleyball game experts, and 87.5% of linguists from expert validation results showed that the learning model was fitting for the game. volleyball Valid or worth using.

The next stage is the development stage, which is an activity consisting of one-on-one trials and small group trials of products that have been declared valid. The one-on-one test was carried out on 1 physical education teacher as a user, namely by providing a questionnaire on the top learning technique developed and the average percentage result was 80% for the development of the top learning model where these results were included in the "feasible" (valid) category where The teacher feels that they can use the learning model well, then there is a small group trial where 12 students of class VIII junior high school are tested with the results of 1 student (8.33%) in the very good category, 9 students (75%) are in the good category, and 2 students (16.67%) are in the sufficient category. Based on these results it can be seen that students have skills that are in the good category after using this product. After small-scale trials, revisions were made based on input from the teacher and observations of students during the implementation of the upper-pass learning model in the field. The end of this research is at the stage of a large-scale trial using 24 students as respondents. The large group trials in this study were intended to review the product of the development of the passing learning model of volleyball in class VIII students of junior high school no 1 Palembang, by measuring the achievement of product development goals by measuring what the development goals had been able to achieve, namely improving results. learning passing over the volleyball game, besides this group try-out is used as feedback to make it easier for teachers to plan quality, effective, and efficient learning.

This research resulted in the development of a valid passing-over learning model that can be used for learning passing on junior high school students from previous research (Destriana, Destriani, Yusfi, & Muslimin, 2020) stated that the development of the fitting model can improve junior high school student learning outcomes (Huang, 2019) produce a volleyball leg movement teaching model based on a combination of the frontal double hand overhead pass technical action model can improve the upper pass results, then the research results (Barsingerhorn, Zaal, De Poel, & Pepping, 2015) resulting that in order to develop fitting and decision-making skills, it is necessary to be encouraged to practice

different techniques simultaneously in situations where the same technique is given, rather than train different fitting techniques separately, further research results (Destriana, Destriani, & Yusfi, 2018), regarding the development of under-passing learning that can improve the results of passing learning, besides that (Destriani, Destriana, Switri, & Yusfi, 2019), Based on the results of his research that the development of mixed volleyball can improve the learning outcomes of volleyball from these studies, it can be concluded that the development of the upper pass learning model can be done in various ways, thus this research produces overhead pass learning model that is valid or suitable for use for overhead pass learning of volleyball especially at the junior high school level.

CONCLUSION

The conclusion of this research is that the development product in the form of a learning model for volleyball is valid or suitable for use in the volleyball learning process in class VIII of Junior High School. It is hoped that the findings of this study can be an additional reference in learning upper passing in volleyball so that it can improve the results of passing skills over games in volleyball games.

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