

## VOLLEYBALL SMASH PRACTICE DEVELOPMENT MODEL

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### **Abstract**

*This study aims to develop basic volleyball smash techniques, a book product that will be produced in this research. The objective of this research is for some coaches to implement training programs in their respective clubs. The method used in this research is development research (R&D). The steps in compiling this research are excerpts from Borg and Gall's research steps where there are 10 steps, but because Indonesia is currently experiencing the Covid-19 pandemic, this study only uses the third step of Borg and Gall's research. This study used a validity test of the volleyball smash training model which was carried out by 3 experts, namely coaching experts, volleyball experts, and media experts. The instrument used to collect data about the volleyball smash feasibility test is using a questionnaire or questionnaire with a research scale. Evaluation data uses qualitative and quantitative descriptive percentages. The results show that the PGRI Palembang University volleyball club smash training model is feasible to apply*

**Keywords:** Exercise; Smash; Volleyball

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## **INTRODUCTION**

Volleyball was first discovered by William G. Morgan. This sport is included in the big ball sport. Volleyball is currently one of the sports that are in great demand by people in Indonesia, ranging from school children to teenagers, and is included in the category of all ages. It can be seen with the development of this sport, almost every city and even district have a volleyball court. The sport is played with 6 people, limited by the net, so there is no direct contact with the opponent. This game is very minimal with injuries like other team sports which is direct contact with the opponent. To start the game serve first by one of the teams

and the ball must cross the net, if it fails, the opponent gets points. If one team manages to drop the ball into the opponent's area then that team gets a point

Sport as one of the physical activities of humans at this time is very influential in increasing the dignity of a nation because sport is important to raise the dignity of a nation, sports must be well developed. This is stated in RI Law no. 3 of 2005 concerning the sports system article 27 paragraph 1 which reads: "the development and development of achievement sports are carried out and directed to achieve sports achievements at the regional, national and international levels". Volleyball is a sport that is favored by Indonesian people, both men, women, youth, and adults.

Opinion (Wa'asil et al., 2019) This game is a team sport played by six people per team and this game will go well if every player has at least mastered the basic techniques of playing volleyball). Another opinion says (Gall et al., 2007) volleyball is a sports game played by two opposing teams and is limited by a net. Each team has six players. Where more than one player is involved, each player from each team has a specific goal both for fun and for victory.

Volleyball is a complex game that is not easy for everyone to do (Rosdiani, 2012). This game is a sport that requires good cooperation in a team. One thing that distinguishes this sport from other sports, is the existence of 6 basic techniques in this sport. The basic technique that is very difficult or has a complex level of difficulty is a smash.

One of the sports achievements at the University of PGRI Palembang is volleyball. This sport has very good achievements, starting from the graph of the results of a match between students between South Sumatran clubs. Based on the results of the trainer's evaluation of several matches that have been participated in, several notes are used as material for correction of the basic volleyball technique, namely the basic smash technique. Smash is a very sharp and fast blow, to be able

to generate points that we get from opponents. This technique is included in the category of complex techniques because it is an advanced technique.

(Palao et al., 2009) says "Attack is the standard technique (standard jump and arm swing) and other techniques (variations or modifications of the standard technique, either in the jump or in the arm swing)" (standard jump and swing arm) and other techniques (variations or modifications to standard techniques, either in jumping or on the arm. Another opinion says (Kristriawan & Sukadiyanto, 2016) Smash is hitting the ball toward the opponent so that the ball can cross the net and cannot be returned by the opponent, and the team hitting the ball gets points. Smash or also known as the attack is a form of the hitting game that plays a very important role in playing volleyball because this technique is most effective for killing the opponent's defense or turning off the ball in the opponent's field and at the same time to be able to gain points. Therefore, the smash technique needs to be mastered by a volleyball player, because a team that has a good smasher has good skills have a great chance of winning the game in a match.

Based on the evaluation material seen from the match statistics carried out in each match, it was found that there were still many deficiencies in the mastery of the basic techniques of the players, the match statistics showed that the mistakes made by the team players as a whole were caused by errors in implementing basic volleyball techniques, including Passing (21%), Service (17%), Block (25%) and Smash (32%), judging from the data according to the points earned in the matches followed by the Kemenpora CUP in 2022 and the Student Sports Week (POMDA) Competition in 2022, the facts are found in the field in the form of the most common errors in the basic Smash technique became the basis for researchers in conducting development research. Looking at these data, there needs to be a solution that must be resolved, one of which is by developing a volleyball smash training model in a training program to improve smash techniques in volleyball.

## METHOD

The initial steps taken in this study started with analyzing the needs of smash products, where this data is the first step before moving on to the next stage. Then design the product to be developed. One of the techniques that will be developed is the smash technique, after which it is validated according to the needs needed, of which are media experts, volleyball experts, and material experts. Followed by small-scale trials, in this small-scale trials revisions were seen after carrying out activities in the field. If a note is found that leads to revision, then a change is made with input from the observer.

This research was continued after a revision on a small scale, then returned to the field again by conducting large-scale trials, at which time researchers and people involved in the field looked back at what obstacles or problems existed in the field. Usually, after entering this stage, the notes and results of observations are very small, because they have been carried out in small-scale trials before.

According to (Emzir, 2012) "in the field of education the main purpose of research and development is not to formulate or test theories, but to develop effective products for use in schools" More clearly (Gall et al., 2007) define " Research and development is an industry-based development model in which the findings of the research are used to design new products and procedures, which then are systematically field-tested, evaluated, and refined until they meet specified criteria of effectiveness, quality, or similar standards ". However, due to time and cost constraints, this research only reached the stage of producing a product in the form of a prototype.

The steps in this study adopted from the borg and gall model steps, namely: (1) Research and Information collection, (2) Planning, (3) Developing a Preliminary form of Product, (4) Preliminary Field Testing, (5) Main Product Revision, (6) Main Field Testing, (7) Operational Product Revision, (8) Operational Field Testing, (9) Final Product Revision, and (10) Dissemination.



However, in 2020 Indonesia experienced an outbreak of the virus we call Corona. Judging from data from all over Indonesia, 70% of Indonesian people carry out activities inside the house and 60% of Indonesian people are partially affected by the coronavirus. Outbreaks that occurred in Indonesia, in research that should have been carried out up to 10 stages, were only carried out up to 7 stages. For this reason, this research reached the expert validation stage.

Descriptive data analysis techniques in the form of percentages are used for percentage data collection in needs analysis, expert evaluation, small-group trials, and large group trials. According to (Sugiyono, 2008) the formula used to process data is as follows:

$$P = \frac{X}{X_i} \times 100\%$$

Descripticont : Percentage of test subject evaluation results.

X : Total score answers by test subjects.

Xi : The maximum number of answers in the assessment by test subjects.

100% : Konstanta

To make it easier to conclude the results of the analysis of the percentage of attractiveness and ease of product development, classification criteria are set.

**Table 1.** Percentage Analysis

Percentage	Categori	Discription
80-100%	Very Good	Can be used without revision Percentage Analysis
61-80%	Good	Usable with minor revisions
41-60%	Enough	Not suitable for use, it is recommended not to use
21-40%	Not Good	Cannot be used
00-20%	Enough Good	Cannot be used

The following is the formula for processing the data as a whole for the test subjects using the procedure (t-test).

## RESULT AND DISCUSSION

The results of the needs analysis data related to the volleyball smash training model can be seen and can be developed, including. Some students know volleyball, as seen from the percentage. 50% of students know the basic smash technique in volleyball, 55% of students know the rules of volleyball, 45% of students know the steps involved in doing smash techniques and 50% of students know what facilities and infrastructure are needed in volleyball.

Judging from the data above, there is very little student knowledge of volleyball, including basic smash techniques. Many students are bored and bored while doing this activity, some students just watch outside the field, look far away with no focus, and some are not even interested at all. This is the strong reason for conducting this research.

The volleyball smash development product was then revised by looking at the notes from several experts, starting from the media, volleyball experts, and material experts. After the draft has been completed, then it is tried out with students.

This trial was attended by observers to make direct observations with researchers regarding every movement made by students. On the results of this small-scale test, it was found that the overall smash training model development product was feasible to use or use because all test subjects on a small-scale student were able to carry out and apply all the product development models that the researchers compiled.

Based on the above data as a whole, an average value of 73.03% is obtained with very good criteria, so the learning model for the basic volleyball smash technique is tested at the next stage. The data seen from media experts is 70% with very good criteria so that this training model can be carried out to the next stage. And the data seen from the material produced, there is a very good 73% criterion. At UI, the volleyball game was given mastery of the smash technique and it was seen that the students were very enthusiastic about doing it.

This smash training model has advantages according to the characteristics of the students, developing this technique is carried out according to the stages. Producing a product that trainers can practice in the future. The development of this smash is a reference that can be concluded in a systematic training process.

## CONCLUSION

This research has produced a book product in the form of a volleyball smash training model at PGRI Palembang University. Based on the training car development product, the results of the assessment by media experts were obtained in a very valid and usable category, while the results of the material expert's assessment obtained results in the valid category and could be used with revision, and the results of the learning expert's assessment obtained results in the valid category and can be used with revision. Thus it can be concluded that the results of the development of e-module courses in theory and practice of learning gymnastics are feasible to be used as teaching materials and can be continued in further trials.

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