

# IMPLEMENTATION OF SMASH TRAINING MODELS FROM DIFFERENT POSITIONS FOR YOUTH VOLI ATHLETICS

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## Abstract

**Introduction:** Volleyball is a sport that has become popular in Indonesia. People's enthusiasm for playing, practicing, or watching football matches will increase. **Aim:** The primary goal of this study is to develop an appropriate smash training model from many positions for male youth volleyball athletes. Creating smash training models that work well for young male volleyball players in different positions. **Method:** research and development is the term used to describe this kind of study. The following are the steps of development research: (1) preliminary study, (2) initial draft design, (3) initial draft validation and revision, (4) small-scale trials and revisions, (5) large-scale trials and revisions, (6) final product, and (7) effectiveness test. Small-scale trials at the Yuso Sleman Volleyball Club. Large-scale experiments were conducted at Club Pervas and Selabora. 8 trainers conducted the effectiveness test. Performance tests were employed as an effectiveness testing tool in addition to (1) interview guides, (2) questionnaires, and (3) other data collection devices, descriptive quantitative and descriptive analysis was used to examine the data on the input product appraisal and interview outcomes. **Result:** The results showed that: (1) The developed model book for smash training from various positions for male youth volleyball athletes was feasible. There are seven smash training models in the training model. The product of the smash training model from different positions for young male volleyball athletes was evaluated by media experts, and the results showed that 84,38% of the assessments fell into the very good/very feasible category; 90.81% of the evaluations from material expert 1 and 93.75% of the assessments from expert material 2 were also in this category. (2) based on the evaluation of eight instructors, the book model of smash training from different positions for young male volleyball athletes is beneficial. **Conclusion:** So, it can be concluded that a model book on smash training from various positions for young men's volleyball athletes is effective based on the assessment of 8 coaches.

**Keywords:** Training Models, Smash In Various Positions, Young Male Athletes, Volleyball.

## 1. INTRODUCTION

Volleyball is a sport that has spread in Indonesia. Public enthusiasm for playing, practicing, or watching volleyball matches is quite high. From the crowd of spectators in the inter-village to the official matches that are being held by the community, the carpenters, Pengda, and PP PBVSI. A good volleyball game must have a mastery of techniques, physical skills, tactics, and strategy to achieve the main goal of winning the game (Samsudin et al., 2021).

Smash is the most important part of a volleyball game because smash is one of the most widely used forms of attack in gaining value or numbers. (Ramadhani et al., 2023) Based on the type of feed given, the smash is distinguished into five, including open smash, semi-smash, quick smash, back attack smash, and direct smash. Smash attacks on volleyball balls are usually performed by players from various positions. (Corbin, 2021) Smashes can be performed from positions 2,3,4 and usually, the back player helps the attack from the back positions of the 3-meter line i.e. from positions 5,6, and 1 to make the smash attack (Yenen et al., 2023).

The researchers had difficulty observing the decay study during this pandemic because the club still rarely exercised actively. There are only three clubs in Sleman that have been active in practice: Yuso Sleman, pervas, and Selabora. Based on the results of observations conducted by researchers with several volleyball clubs in the Sleman district, namely Club Yuso Sleman, Selabora, and Club Pervas. During this observation, researchers during the smash training program were still trained with a one-on-one model that developed a combination of smash from distinct positions. (Syahri et al., 2023) Observations show that (1) guidelines for coaches to give smash variation material when training is still needed, (2) athletes are often late in decision-making when performing smash (3) smash movement coordination is still lacking, (4) less optimizing the smash training variation given to coaches, and (5) less-maximum training guideline by the latest training principles (Raditia et al., 2021).

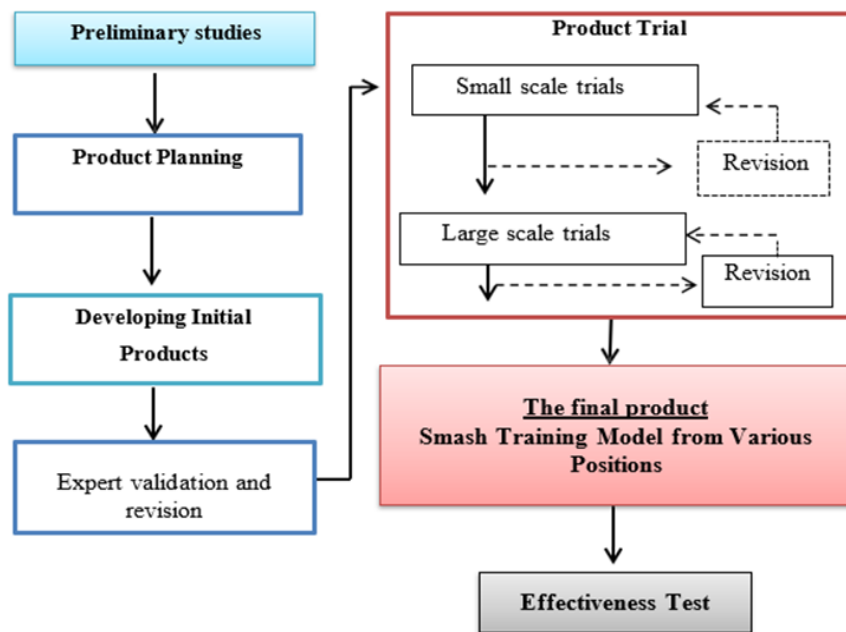
The other problem is that most books about volleyball are very rare and deal specifically with the variation of the smash technique, the books that have been around this time discuss the sport of volleyball in general, from the history of volleyball, volleyball equipment, and basic volleyball technique (Piru et al., 2021).

Based on the above description, the researchers developed guidelines on smash training models from various positions for teenage volleyball athletes. The researchers hope that the resulting product can contribute to the advancement of science especially in volleyball sports, as a medium to facilitate the process of training, especially smash skills, and the smash training model book from various positions for teenage volleyball athlete's son is easy to carry and use anywhere for coaches and athletes. The smash variation with various positions is a variation of the modified smash model. The modification can be seen from the number of players in front, the number of performing smashes, and the smash of the 3 positions including the front open spike position 4, the vertical ball semi position 3, and the open spikes of position 2 (Piru et al., 2021).

## **2. MATERIALS AND METHODS**

### **2.1 Research Design**

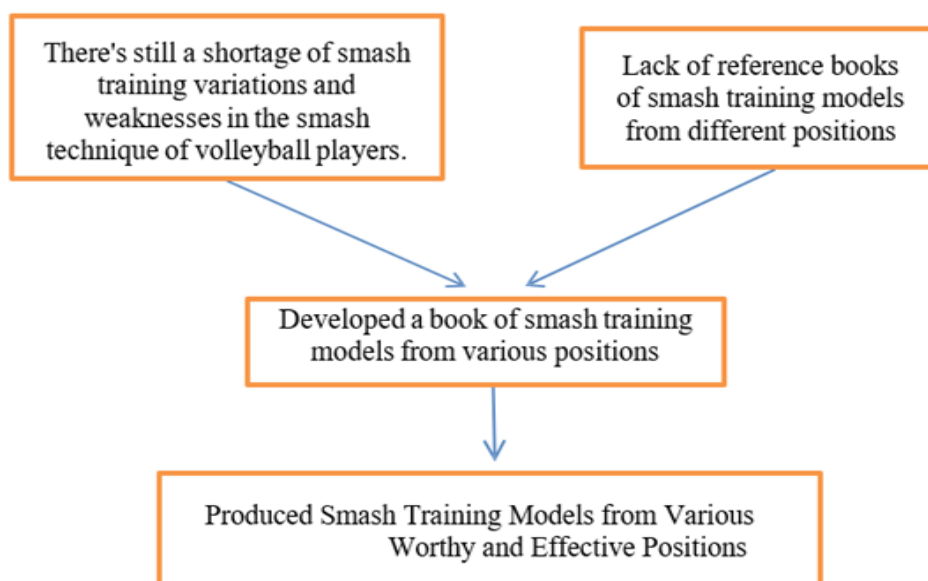
The type of research used is Research and Development. (Hanafi, 2022) the research design of the Borg & Gall development model was then modified to be simpler involving six major steps: (1) preliminary study, (2) initial draft design, (3) initial draft validation and revision, (4) product testing small scale testing/revision and large scale test/review, (5) end product, and (6) Effectiveness test. (Sugiyono, 2013) Then from the adaption of the research and development procedures, the researchers undertake the steps presented in Figure 1 as follows:



**Figure 1: Development Procedure Schedule**

The test subjects or targets in use on the product developed by the researchers are coaches and athletes of the youth volleyball group.

The training model is an arrangement of a plan of physical activity process for the entire unit that is carried out consciously, systematically, gradually, and repeatedly, over a long period, to the ultimate goal of an appearance that is optimum performance improvement. (Riyadi, 2016) for the training to optimal results, the training program should take into account the individual abilities of the child, taking into account and following the principles or foundations of training. (Putrianti et al., 2024) Based on that, the study aims to develop a model of smash training from different positions for teenage volleyball athletes.



**Figure 2: framework of thought**

## 2.2 Prosedure

The data used in this study is both qualitative and quantitative data. This type of data is derived from interviews with coaches and players and input data from material experts on the product developed. Quantitative data is obtained from the evaluation of the product smash training model from various positions for teenage volleyball athletes. At the time of the preliminary study, the data collection technique used was an interview. Product development data collection techniques during expert validation using Delphi techniques. Field test data collection technique (small and large scale) using lifts. (Sugiyono, 2013) the scale of values in this study uses the Likert scale with four alternative answers, namely not suitable (1), less suitable (2), suitable (3), and very suitable (4).

**Table 1: Assessment Sheets for Material Members**

Variable	Factor	Indicator	Details
Material aspects	Material <i>smash</i>	Instructions for training are clearly in line with the purpose of the training	1
		Easy to do	2
		Reduces boredom	3
		Improve skill <i>smash</i>	4, 5
		Risk of injury	6
	Characteristics	Compatible with the characteristics of teenage athletes' son	7
		Training load compatibility	8
	Tools and facilities	Compatibility of equipment and facilities	9, 10, 11
	Execution	The coach's instructions are clear and easy to understand	12
	<b>Number</b>		

**Table 2: Assessment kits for media experts**

Variable	Factor	Indicator	Details
Media Aspect	Physical Aspects	Book size	1
		Book thickness	2
		Cover paper material	3
		Paper material on the contents	4
	Design Aspects	Image size on contents	5
		Image organizer on contents	6
		Image size on the cover	7
		Image size on the cover	8
		Writing size on content	9
		Writing layout of the cover	10
		Writing size on content	11
		Writing layout on content	12
		Book cover color	13
		Writing color on the cover	14
		Writing color on content	15
		Color on image	16
<b>Number</b>			<b>16</b>

**Table 3: Assessment Kits for coaches and athletes**

Variable	Factor	Indicator	Details
Media aspect	Physical Aspects	Book size	1
		Book thickness	2
		Cover paper material	3
		Paper material on the contents	4
	Design Aspects	Image size on contents	5
		Image organizer on contents	6
		Image size on the cover	7
		Image size on the cover	8
		Writing size on content	9
		Writing layout on the cover	10
		Writing size on content	11
		Writing layout on content	12
		Book cover color	13
		Writing color on the cover	14
		Writing color on content	15
		Color on image	16
	Usage Aspects	Attracting Attention	17
		Smash techniques are more varied	18
		Help improve smash skills	19
<b>Number</b>			<b>19</b>

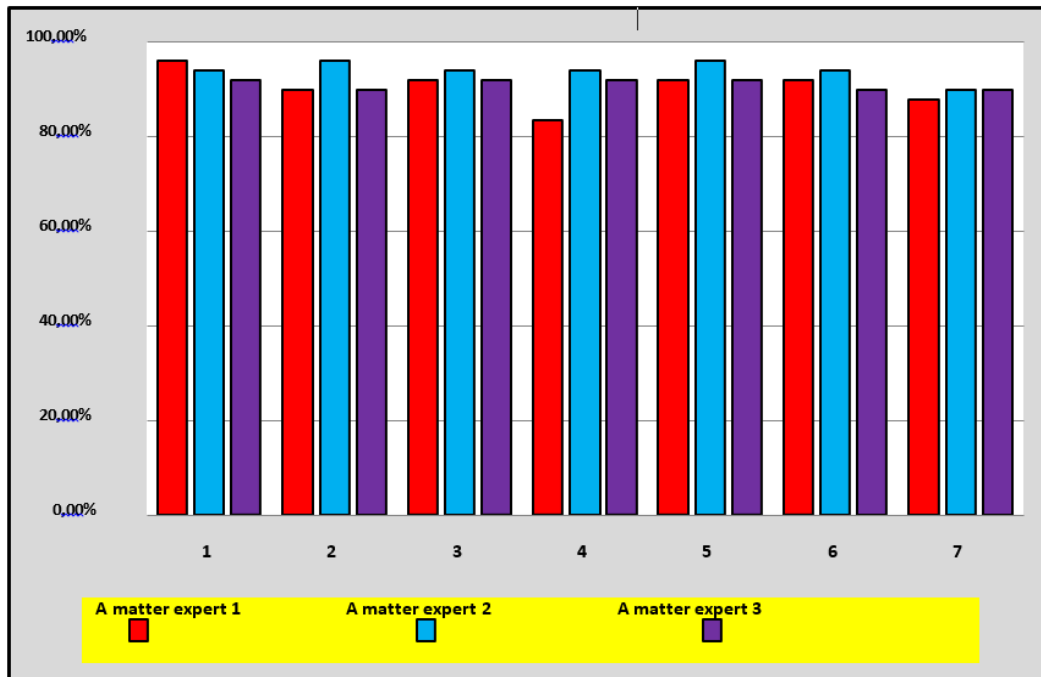
### 2.3 Data Analysis

The data analysis carried out in this study is qualitative and quantitative descriptive analysis. (Dr. Umar Sidiq, M.Ag Dr. Moh. Miftachul Choiri, 2019) Among them are (1) scale data of evaluation results against draft smash training model of various positions for teenage volleyball athlete's son, (2) small-scale test observation data, and (3) data results from large-scale observations, while qualitative descriptive analysis is carried out against (1) data from the interview during the preliminary study, (2) lack of data and input on the model before the test and after the field test (Rumeser & Emsley, 2019).

### 3. RESULTS

The basis of development that the researchers carried out was at the time of preliminary studies by doing observations in several volleyball clubs in the Sleman district, namely Club Yuso Sleman, Selabora, and Pervas Club. The results of observations show that (1) guidelines for coaches to give smash variation material when training needs to be added again, (2) athletes are often late in decision-making when making smashes, (3) less optimization of the smash training variation given to the coach, and (4) the training guidelines have not been maximized by the principles of the practice.

Based on the description above, the researchers then developed a smash training model book of different positions for teenage boy volleyball athletes. The first step is to create a draft of the training model, and then validate the expert, that is, the media expert by Dr. Widiyanto, M. Kes., whereas the materialist by Prof. Dr. Suharjana, M. Kes., Dr. Or. Mansur, M.S., and Dr. Guntur, M.Pd., the results of the assessment of media and material experts against the draft smash training model of various position for teenage volleyball athlete's son are presented in the following picture.



**Figure 3: Diagram of expert assessment results of material on smash training models of various positions for teenage son volleyball athletes**

The above picture shows the results of the material expert assessment on the draft of the smash training model from various positions for the teenage volleyball athlete son i.e. for the material expert 1 assessment of the smash model 1 size 95,83%, model smash 2 size 85,98%, model smash 3 size 91,67%, model smash 4 size 83,33%, model smash 5 size 91,67%, model smash 6 size 91,67%, model smash 7 size 87,50% and they're all in the category of good/very decent, material expert assessment 2 smash model assessment 1 size 93,75%, model smash 2 size 95,83%, model smash 3 size 93,75%, model smash 4 size 93,75%, model smash 5 size 95,83%, model smash 6 size 93,75%, model smash 7 size 89,58%, and they're in the very good/very decent category, whereas the material expert's rating of 3 is a smash model of 1 size 91,67%, model smash 2 size 89,58%, model smash 3 size 91,67%, model smash 4 size 91,67%, model smash 5 size 91,67%, model smash 6 size 81,58%, model smash 7 size 81,58%, and they're all in a very good/very decent category (Jääskä et al., 2021).

The assessment of the media experts on the smash media experts on the smash training model from various portions for teenage volleyball athletes' sons is as:

**Table 4: Media expert assessment data on smash training models from various positions for teenage son volleyball athletes**

Expert	Aspects	Real score	Max score	Presentation	Category
Media expert	Physical	12	16	75.00%	Worthy
	Design	42	48	87.50%	Very worthy
<b>Number</b>		<b>54</b>	<b>64</b>	<b>84.38</b>	<b>Very worthy</b>

According to the assessment of the media experts, the above table showed a draft smash training model of various positions for volley football athlete's teenage sons i.e. for the physical aspect of 75,00% entered in the category good/ qualified and the design aspect of 87,50% entered the category very good/very qualified. Based on the



evaluation of experts/ media/media on the product developed into the category excellent/highly qualified, then the advice and expert input on the validation results are revised according to the results of the validation.(Chukwurah et al., 2020)

After determining the product to be developed the next step is to compile a product test, this process is conducted so that the training model product from various positions for young volleyball athlete's son developed qualified. The trial was divided into two small trial results and a large-scale trial result in this trial. The trials were conducted at the Yuso Sleman Volleyball Club located in JL. Colombo Yogyakarta No.1, Karang Malang, Caturtunggal, Kec. Depok, Kab. Sleman, Yogyakarta Special District 55281. The event consisted of two coaches and 12 youth athletes as testers. The time used to practice the smash training model from various positions for teenage boy volleyball athletes for  $\pm 20$  minutes.

Coach's rating of the Smash Training Model book product from various positions for junior volleyball athletes is for coach 1 on the physical aspect 81.25% in the category very good/very qualified, 91.67% design aspects into the category excellent/very dignified, and 87,50% usage aspects to the category extremely good/very calcified, whereas coach 2 on the physical aspects of 87.50% into the category very good/very Californication, and usage aspect of 91.67% into this category. While the evaluation of the athletes on the physical aspect with the percentage of 83.33% falls into the category very good/very decent, on the design aspect the percentage of 86.98% falls in the category extremely good/excellent, and on the aspect of usage the percentual of 90.28% fall into the categories very good/very decent.

Then a large-scale test was done, with no difference from a scale test, simply different subjects and different places used. In a large-scale trial, this study was conducted in the Selabora club and the Pervas club with 4 coaches and 24 athletes. The time given is the same as a small-scale test, which is less than 20 minutes. Coach 1 was 93.42% very good/very well qualified, coach 2 was 92.11% very well/very good qualified, coach 3 was 90.79% very good-very well-qualified, and coach 4 was 94.74% very good/very right. The athlete's assessment on physical aspects has a percentage of 87.59% entering the category as very good, and on the use aspect, the percentages of 90.28% entered the category as very good/very good (Nasution et al., 2022).

#### 4. DISCUSSION

Based on the results of the analysis, it can be concluded that the product of the smash training model of various positions for teenage boy volleyball athletes developed worthy of use. The training model consists of 7 smash exercise models (Fauzi et al., 2024).

The use of the media in this case, the reference book of the smash training model from various positions for teenage volleyball athletes to give good training results has a huge role. Through the media as a book, the potential of the athlete's senses can be accommodated, so that the training results will be increased (Wijaya & Madini, 2024). This is in line with the opinion of Rusman, dkk, who states that one of the aspects highlighted that can improve learning results is multimedia, that is, a combination of various media elements such as text, images, and animation (Girsang et al., 2024).

The Smash Training model book of various positions for teenage volleyball athletes can also be a reference to the training so that the athlete does not experience satiety at the time of training. The opinion is consistent with the research that has been carried

out by Nurfallah, dkk., (2019) suggests that there is a significant difference between the pre-test results and the post-test given treatment of the smash training model developed. This smash training model in a volleyball game for beginners is effective in enhancing the ability to smash volleyballs. (Bagaskara, 2022) Ishaq successfully developed a learning medium about futsal referee signals. The research was developed so that students were more enthusiastic about studying futsal surveillance signals, so that when learning the psychomotor field in the skills of playing futsal supported with the cognitive field of knowledge about futsal surveillance signals, then the results of the skill of playing futsal becomes more maximized (Ishaq et al., 2021).

## 5. CONCLUSIONS

The development of a smash training model for a variety of positions for teenage volleyball athletes began from (1) preliminary study, (2) expert validation and revision, (3) product testing; small scale testing/revision and large-scale test/review, and (4) and product and (5) effectiveness test. This training model consists of 7 smash training models. The media assessment of the smash exercise model product from various positions for teen volleyball athletes is 84.38% in the category very good/very decent, the material expert assessment 1 is 90.18%, the materials assessment 2 is 93.75%, and the materialist's assessments 2 are in the categories very good/ very decent.

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