



Book Development of Volleyball Passing Variations in the Special Preparation Period for Volleyball Teachers and Coaches in Palembang

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Abstract

This study aims to develop a volleyball passing variation book during the special preparation period for volleyball teachers and coaches. This research uses the ADDIE model development research method which consists of 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. Data collection techniques using a questionnaire. Data analysis used quantitative descriptive analysis. Product validation was carried out by five experts consisting of one volleyball learning expert, one language expert, 2 volleyball coaches and 1 volleyball extracurricular teacher in high school. The research sample was taken through a purposive sample of 23 people. The results showed that the book of volleyball passing variations in the special preparation period for volleyball teachers and coaches in Palembang has gone through expert validation with the results of the book's grammatical suitability of 89.3% (category very worth using), the ease of using the book is 86.5% (category very worth using), the suitability of the material is 90.3% (category very worth using) and the result of book implementation is 86.5% (category very worth using).

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INTRODUCTION

Educational sports as one of the scopes of sports activities cannot be separated from efforts to develop and improve the quality in its implementation. This is related to the mandate of Law Number 3 of 2005 concerning the National Sports System article 25 paragraph (1) which states that the development and development of educational sports is carried out and directed as a systemic and sustainable unit within the national education system. In Government Regulation number 16 of 2007 concerning the Implementation of Sports, article 25 paragraph (1) states that the coaching and development of educational sports aims to obtain knowledge, personality, skills, health and physical fitness as well as the development of sports interests and talents.

Volleyball is one of the most popular sports among Indonesians from the bottom to the top of the sport. Volleyball includes games and sports activities (Yudiana, 2015). Volleyball is a complex game that is not easy for everyone to do, because in volleyball games, it takes coordination of movements that are really reliable to do all the movements in the volleyball game (Dede Sumarna & Asep hidayat, 2020).

In essence, the game of volleyball is a game of ball over the net, by applying various basic techniques of playing to enter the ball without being received or the ball touching the ground in the opponent's area (Rachmalia, 2022). Volleyball is played by six players in a rectangular field with a court size of 18 x 9 meters. The field is bounded by a net that is 2.34 meters high for men and 2.24 meters for women (Munawar et al., 2017). The technicality of the volleyball game is carried out by each team which is marked when the game has started through the first stroke from the back of the volleyball court, each team can only play the ball in their field area a

maximum of 3 times the ball is touched (Ogi Putra, 2021). In playing this game, every player must master various basic techniques such as upper passing techniques, lower passing, upper serve, lower serve, and smash.

According to Winarno et al (Suriadi & Dewi, 2020) passing means feeding or passing the ball to a teammate. Passing is the effort or effort of a volleyball player by using a certain technique that aims to pass the ball played to a friend in unison to be played on his own court. Argues that passing is passing the ball to one's own friend in a squad with a certain technique, as the first step to composing an attack on the opponent. There are two types of passing, namely bottom passing and upper passing. The following section will be presented with the technique of passing, both lower passing and upper passing. Bottom passing is a way for players to pass the ball or receive the ball from the front of the body using both hands simultaneously. Upper passing or called set up is a player's attempt to pass the ball which is carried out when the ball is above the head using both hands simultaneously.

Many factors affect the basic engineering skills of volleyball. The low skill of the basic passing technique under the game of volleyball needs to be traced to the causative factors, whether it is due to poor mastery of the basic technique, unsupportive physical ability or ineffective training methods and so on. Such a condition is that a physical education teacher and coach must be able to evaluate from all factors both from the teacher's or the coach's own side and from the side of participants who take part in volleyball extracurriculars (Imran, 2019).

In the sport of volleyball, there are four techniques that serve, passing, smash and block (Rio Wakhid Hujjatul Islam, 2019). In order for the passing technique to be curated by the player, it requires intensive and regular training. Training is

essentially a systematic process to improve the quality of athletes' performance in the form of fitness, skills and energy capacity, paying attention to educational aspects using a scientific approach. Coaches and athletes in carrying out training always adhere to the principle of training. The principle of training must be adhered to by each athlete and applied in training so that the objectives of the training carried out can be achieved in accordance with expectations (Hermawan et al., 2016).

Training aims to get convenience in strengthening skills and achievements to the maximum. The coach is very instrumental in the training process on the formation of good basic techniques in each player. Therefore, trainers need to have training expertise certification standards that come from institutions and professional agencies that manage trainer certification. Good character building can also support athletes' achievements, therefore every coach must be biased to shape the character of his athletes in order to excel. The personality or character of the athlete is one of the main factors in achieving achievements. In addition, the discipline that must be instilled from an early age makes the quality of children better (Purbaningrum & Wulandari, 2020).

The sports coaching process must be handled by a person who is an expert in the field, since to be able to train correctly a coach must be able to determine the dose or training load that suits the needs of the athlete individually. To be able to determine the dose of exercise requires adequate knowledge and experience from the trainer. Therefore, coaches must have a certain classification of the sport they are engaged in, for example, a coach must have certain coaching ability certification standards issued by certain professional institutions or agencies that manage coach certification (Hadi, 2011). Coaches also have to read a lot about sources that can

support basic techniques, especially in the field of passing.

The research that is used as a reference is the e-book-based volleyball learning model as a guide for sports lecturers in teaching volleyball courses (Endriani, 2022), developing a form of underhand passing technique skills test in a sensor-based volleyball game (Indrakasih, 2022). Based on the preliminary study conducted by the researcher obtained, it is necessary to develop a book variation of volleyball passing in the special preparation period for volleyball teachers and coaches in Palembang. This encourages researchers to conduct research.

METHODS

The research method used is the development research method with the ADDIE model approach. The stages passed include: 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation (Spatioti, 2022). This research and development model is more rational and more complete than other models according to product development steps (Mulyatiningsih, 2011).

Participants

a. Expert Review

Expert validation is carried out to validate the initial book product that has been designed. In this study, 5 experts were used, namely 1 volleyball learning expert, 1 linguist, 2 volleyball coaches and 1 high school extracurricular teacher. Retrieval of validation data was carried out using a questionnaire and then the data were analyzed quantitatively and qualitatively. Quantitative data is in the form of statistical data while qualitative data is in the form of expert opinion suggestions.

b. Implementation

At the implementation stage, a sample of 23 volleyball club coaches and high school volleyball extracurricular supervisors were used. The research sample was selected by purposive sampling.

Sampling Procedures

The research sample was taken using purposive sampling with criteria including: 1) volleyball coaches and physical education teachers from the city of Palembang, 2) fostering high school volleyball and extracurricular clubs, 3) having at least 10 years of coaching experience, 4) having a trainer's certificate volleyball. In this study, the number of research samples was 23 people.

Materials and Apparatus

The research instrument used a questionnaire. The questionnaire is arranged on a Likert scale with intervals of 1-5. The questionnaire is used on experts and research samples. Experts fill out questionnaires at the development stage to validate book products. Questionnaires were also given to the research sample, namely volleyball club coaches and volleyball extracurricular teachers in high schools.

Procedures

The researcher applied the procedures for implementing the development of a volleyball passing variation book during a special preparation period for volleyball teachers and coaches in Palembang as follows:

1. The researcher compiled a book on variations in volleyball passing during a special preparation period.
2. Volleyball extracurricular coach teachers and volleyball coaches read books and practice variations of volleyball passing during the special preparation period.

3. The volleyball coach provides an assessment of whether the variations in volleyball passing contained in the book can be practiced or not.

Design or Data Analysis

This study uses a quantitative descriptive analysis. Data was collected using a questionnaire. The data collected is in the form of quantitative data. Analysis in the form of a percentage with the following formula:

$$P = \frac{\sum x}{\sum xi} \times 100 \%$$

Description:

$\sum x$ = The total score obtained
 $\sum xi$ = Total maximum score

From the results of calculating the percentage, it is then categorized using a rating scale to determine the feasibility of the product being developed. These categories can be seen in the following table:

Table 1. Category

Percentage	Category
0 - 20%	Very Not Worth Using
20,1% - 40%	Not Worth Using
40,1% - 60%	Worth Using With Repair
60,1% - 80%	Proper to use
80,1% - 100%	Very Worth Using

RESULT

In detail the results obtained are as follows:

1. Analysis

At this stage, an observational study was carried out in high schools that have volleyball extracurricular activities and volleyball clubs in Palembang. As for the results, a book of variations on volleyball passing exercises is needed during the special preparation period for volleyball teachers and coaches. This is necessary for preparation for the high school level volleyball championship.

2. Design

At this stage the aim is to design a book that is developed. Volleyball passing variation books during the special preparation period for volleyball teachers and trainers have the following characteristics: 1) used in the special preparation phase for training periods, 2) consisting of a combination of passing techniques and dominant physical components for volleyball but with appropriate training intensity special preparatory phase, 3) the physical components and passing techniques are arranged sequentially, 4) the book is composed of various information so that it is complete and easy to understand, 5) the book is equipped with pictures and implementation guidelines, 6) it is suitable for use as an alternative volleyball practice guide book.

Preparation for special physical conditions is built on the basis of preparation for general physical conditions that are already possessed by athletes, the main goal in fostering special physical conditions is to deepen the development of elements of more specific physical conditions in accordance with the demands of sports, in this case of course in volleyball (Amin, 2020). The special physical condition component is based on the need for technical and tactical movements.

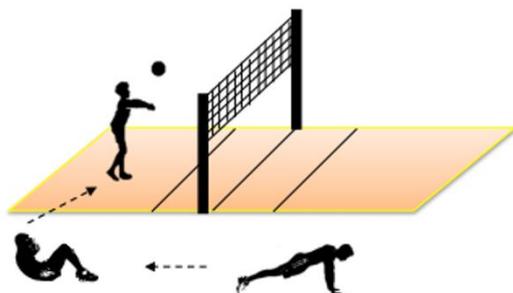


Figure 1. Product Display

3. Development

At this stage the process carried out is the validation of book product experts. The book developed will be validated by 5 experts, namely 1 volleyball learning expert, 1 linguist, 2 volleyball coaches and 1 high school extracurricular teacher. In the expert validation process, the data collected is in the form of quantitative data in the form of percentages and qualitative data in the form of input and expert advice.

The qualitative data is in the form of input and expert advice as follows: 1) improvements to the variation on the exercise book, 2) improvements to the variation on the exercise book, 3) addition of variation names to each player, 4) addition of goals, executions, and objectives to the steps of volleyball passing variations, 5) the addition of arrows to each variation and the change of warn on the playing field.

The results of quantitative data analysis in detail are as follows:

Table 2. Expert Validation Results on Book Grammar

Question	A	A	A	A	A	Σx	Σxi
	1	2	3	4	5		
1	4	5	5	5	5	24	25
2	4	5	5	5	5	24	25
3	4	5	5	5	5	24	25
4	4	5	5	5	5	24	25
5	3	4	4	5	5	21	25
6	3	4	4	5	5	21	25
7	3	5	5	5	5	23	25
8	3	5	5	4	4	21	25
9	3	4	5	4	4	20	25
10	4	4	5	4	4	21	25
11	5	4	5	4	4	22	25
12	5	5	5	4	4	23	25
Σx	45	55	58	55	55	26	30
						8	0
						P	89,3%

Based on the table above, the results of expert validation on the suitability of book grammar are 89.3% (category very worth using). This can be continued at the implementation stage.

Table 3. The Results of Expert Validation Regarding the Ease of Using the Book

Question	A 1	A 2	A 3	A 4	A 5	Σx	Σxi
1	3	5	5	4	4	21	25
2	4	5	5	3	4	21	25
3	3	4	5	4	3	19	25
4	5	5	5	5	4	24	25
5	4	5	5	5	4	23	25
6	4	4	5	5	4	22	25
7	4	4	5	4	4	21	25
8	4	4	5	5	4	22	25
Total	31	36	40	35	31	173	200
	P					86,5%	

Based on the table above, it shows the results of expert validation on the ease of using books by 86.5% (category very

4. Implementation

The implementation phase is carried out after the book is developed through an expert validation process. In this

worth using). This can be continued at the implementation stage.

Table 4. Expert Validation Results Regarding The Suitability Of The Material

Question	A 1	A 2	A 3	A 4	A 5	Σx	Σxi
1	4	4	5	5	4	22	25
2	4	5	5	5	4	23	25
3	4	5	5	5	5	24	25
4	4	5	5	5	5	24	25
5	4	5	5	4	5	23	25
6	4	4	5	4	4	21	25
7	4	4	5	5	4	22	25
8	4	4	5	5	4	22	25
9	4	4	5	5	4	22	25
10	4	4	5	5	5	23	25
11	4	4	5	5	5	23	25
12	4	5	5	4	4	22	25
Total	48	53	60	57	53	271	300
	P					90,3%	

Based on the table above, the results of expert validation on the suitability of the material are 90.3% (category very worth using). This can be continued at the implementation stage.

study the implementation was carried out to 23 volleyball coaches and volleyball extracurricular coach teachers in high schools. The result is 86.5% (a category very worth using).

Table 5. Implementation Results Books Developed

Question	Sample																							Σx	Σxi
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23		
1	4	3	4	4	4	4	4	5	4	4	5	5	4	5	5	4	4	4	4	5	5	5	5	100	115
2	5	3	4	4	5	5	4	4	4	4	5	5	4	5	5	4	4	5	4	4	5	4	5	101	115
3	5	4	4	5	4	5	4	5	4	4	5	5	3	3	4	4	4	3	5	4	5	5	5	99	115
4	4	2	4	5	3	5	4	5	3	4	4	5	3	5	4	4	4	4	3	4	4	4	4	91	115
5	5	3	4	5	4	4	4	5	4	3	3	5	4	4	3	5	3	4	5	4	5	4	4	94	115
6	4	5	5	4	5	4	3	5	5	5	5	5	5	4	5	5	4	4	5	5	5	5	4	106	115
7	5	4	5	4	3	4	3	5	5	5	5	5	5	4	5	5	4	4	4	5	4	4	5	102	115
8	5	3	4	5	4	3	4	5	4	4	4	5	4	5	5	5	4	4	5	4	5	5	5	101	115
9	5	4	4	5	4	5	4	4	4	4	4	5	4	5	5	5	4	4	5	5	5	5	5	104	115
10	4	3	5	4	4	4	4	4	4	4	5	5	4	4	5	5	5	4	4	4	4	5	5	99	115
11	4	3	4	4	5	4	5	5	4	4	4	4	4	4	4	4	4	4	5	4	5	4	4	97	115
Total																								1094	1265
																								P	86,5%

5. Evaluation

Based on the results of book implementation, the book variation of volleyball passing in the special preparation period of volleyball teachers and coaches in Palembang has been produced. It is hoped that this book will become an alternative guideline for volleyball practice.

DISCUSSION

Based on the stages of development research, the developed book has gone through various stages. The data from expert validation shows that the book developed is in the very worth using category in terms of book grammar, ease of using the book, suitability of the material even at the implementation stage shows the results of the book are included in the very worth using category.

CONCLUSION

1. A book of volleyball passing variations in a special preparation period for volleyball teachers and coaches in Palembang has been compiled.
2. The book of volleyball passing variations in the special preparation period for volleyball teachers and coaches in Palembang has gone through expert validation with the results of the book's grammatical suitability of 89.3% (category very worth using), the ease of using the book is 86.5% (category very worth using), the suitability of the material is 90.3% (category very worth using) and the result of book implementation is 86.5% (category very worth using).

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