SERVICE TECHNIQUE IN BADMINTON FOR STUDENTS

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Abstract. The purpose of this study is to develop a badminton long forehand service learning technique for female students of physical education faculty of teacher training so that learning objectives can be achieved using research and development with analysis, design, development or production models, implementation or delivery and evaluations. Respondents in the study were female students. The product in this study produced a long badminton forehand service manual. Based on the results of the expert validation of badminton games in the category of quite decent. Results validation of experts in Physical Education, Sports and Health in the category of quite decent. Service need to be given more to students in high categories The implication of this study is that long forehand service learning techniques can be used for badminton learning.

Keywords: Learning Techniques, Badminton Games, Physical Education

1. Introduction

Physical education must be taught to every student at all levels of education, namely Elementary School, Middle School, and High School in accordance with the existing curriculum. [12] Physical objectives help and provide opportunities for students to be directly involved in various learning experiences through physical activity, playing and exercising carried out systematically, directed and planned. Learning material in female students of physical education faculty of teacher training is a small ball game. One of them is material about playing badminton. The material taught in badminton games is service.

Basic service techniques must be mastered by students to be able to develop the form of the game. Badminton service is very important because it is the beginning of playing and can produce points. The basic service movement is divided into short backhand service, flick service, forehand long service. One service that must be mastered is a long forehand service because in a single badminton game the basic forehand service technique is high. [8] The Badminton, in respect to shuttle velocity, is one of the fastest racket sports along with Long Tennis. The ability to respond quickly and effectively to a constant changing environment is a key factor to successful performance in addition service plays a vital role in winning a point. [2] The badminton encompass various skills- long service, short service, drop shot, overhead smash forehand smash, backhand smash, etc. To start the game, most commonly used skills are long serve and short serve and to an extend determines the control of the game. [14] Long service is a long service that is usually used in single games as much as possible to hit the shuttlecock to near the back line and swoop sharply straight down. Based on field observations, female students have difficulty for understanding and practicing materials about forehand badminton service. The teacher when teaching directly gives instructions to students to carry out long forehand services in the badminton field without the stages to facilitate students. The teacher has not applied a variety of learning techniques so that students have difficulty understanding and practicing badminton forehand services. Learning becomes monotonous, so students feel bored during the learning process. This makes the learning objectives desired by the teacher not yet achieved. To achieve the goal of learning long forehand service technique in high school is needed learning techniques designed by teachers of physical education, sports and health. Learning techniques especially for forehand service

materials for female students. [13] Technique is the steps taken in the method for managing a learning.

The previous studies revealed that there are relatively few scientific investigations on the execution of badminton forehand service. [4] Results of expert validation of badminton games obtained a percentage of 67.85% in the category of "quite decent" so that learning techniques can be used for badminton learning. [16] the results of the study obtained an increase in long badminton service skills that were quite good, namely in the first cycle with an average value of 60.20 in the percentage of 35.71%, while the average value in the second cycle was 74.15 in percentage of 78.57%. The form of research used is classroom action research with two cycles. [5] Data analyzed with use technique correlation double and formula (r2 x 100%) with Data were analyzed using multiple correlation techniques and contribution formula (r2 x 100%) with a significance level of α 0.05. Data analysis of arm muscle strength obtained r count = 0.543 and rtable = 0.374. Its contribution to the accuracy of long forehand services is 29.48%. Analysis of wrist flexibility data obtained r count = 0.559 and rtable = 0.374. Its contribution to the accuracy of long forehand services is 31.24%. Analysis of data on arm muscle strength and wrist flexibility together contributed 44.35% to the accuracy of long forehand services.

The main purpose of this study is to learning techniques is needed to achieve the goals and learning outcomes of female students. Learning techniques in their application when learning must be carried out according to the needs of students because each learning technique has different goals, principles, and pressures. The selection of the development of appropriate learning techniques can help female students of class X deliver messages correctly, effectively, efficiently, can create and enrich learning experiences, and be able to increase the activity and skills of female students. Based on the existing problems, it is necessary to develop a badminton long forehand service learning technique for girls students. This research and development is expected to produce an effective learning technique for long-service badminton forehand.

2. Research Methods

The development step with the ADDIE model according to [6], namely ADDIE stands for Analysis, Design, Development or Production, Implementation or Delivery and Evaluations. The ADDIE model was developed by Dick and Carry (1996) to design learning systems.

Data collection in the research development of badminton long forehand service learning techniques for female students using a closed and open questionnaire, where on the next page is accompanied by a suggestion column. The questionnaire was given to badminton experts and teachers of Physical Education, Sports and Health.

The data analysis technique used is quantitative assessment techniques using numbers. The percentage is intended to find out the status of something that is being held in line and is presented as a percentage.

The formula for calculating eligibility is as follows [15]

$$\text{Formula : } \frac{CS}{IS}$$

Information : Count Score (CS), I deal Score (IS)

The results of the calculation of further data are made in the form of a percentage multiplied by 100%, after obtaining a percentage with this formula, then the feasibility of developing bad forehand service learning techniques in this development research is classified into four feasibility categories using the following Scale.

Table 1. Feasibility Categories

Score in Percentage	Feasibility Category
<40	Not Good/Not Feasibility
40-55	Not Good/Less Feasible
56-75	Good Enough/Quite Decent
76-100	Good/Feasibility

The questionnaire used in this research is an assessment questionnaire or response with the form of answers and assessment information, namely. (1): Strongly disagree / very inadequate, (2): Not appropriate / inappropriate, (3): Appropriate / feasible, (4): Very appropriate / very feasible.

3. Results and Discussion

The product of the development of badminton long forehand service learning techniques in class X female students was validated by (1) badminton game experts and (2) experts in Physical Education, Sports and Health. The expert validation process is to assess and provide input on the initial product. Revised the initial product from expert validation. The revision of the product continues until the initial product reaches a certain value limit which is determined to show that the initial product is valid and worth testing.

Expert Validation on the Development of badminton long forehand service learning techniques for female students validated by experts namely badminton game experts and physical education, sports and health learning experts. The following are the results of the validation of badminton game experts as follows:

Table 2. Result of Badminton Game Expert Validation Assessment

No	Code	Total (Σ)	Maximal Value	Percentage (%)	Category
1	USKE	20	28	71,42	Quite Decent

Percentage = Total/Maximal Value

= 20/28X100%

= 71,42

The first stage validation obtained a percentage of 71.42 so that it can be stated that according to experts on badminton games about the product the development of badminton long forehand service learning techniques in the category of "quite decent".

Validation is carried out on the experts in Learning Physical, Sports and Health Education. Assessment instruments are as follows:

Table 3. Results of Evaluation of Validation of Physical, Sports and Health Education Experts

Code	Total (Σ)	Maximal Value	Percentage (%)	Category
APB	41	56	73,21	Quite Decent

Percentage = Total/Maximal Value
= 41/56X100%
= 73,21

The first stage validation obtained a percentage of 73.21, so it was stated that according to experts Physical education, sports and health products of the badminton forehand service learning technique for female students received the category "quite decent".

Based on the results of research by [7] on the development of Audio Visual Media Based Badminton Basic Training Model for Beginner Athletes were obtained the data obtained from the average of each aspect such as the display aspect with an average score of 4.20 which includes the criteria of "Very Good", content or content with a score of 4.60 including the criteria of "Very Good", and aspects of learning with a score 4.52 including the criteria "Very Good". [3] Effect of different types of modeling and performance feedback was examined on learning of badminton service. For this purpose, 60 female volunteers (aged 22 ± 1.5) were randomly divided into six groups of 10 people (self-modeling without feedback, self-modeling with feedback, expert-modeling without feedback, expert-modeling with feedback, combined modeling without feedback, combined modeling with feedback. As the results show, subjects of combined modeling with feedback could earn higher scores. Therefore, it can be argued that sports skills training leads to sustainable learning through video combined modeling with feedback. (d) Contextual variety appears to improve the learning of the badminton serve. [10] Implications for coaching are discussed based on the reviewed studies, taking into account a number of research limitations associated with these studies. [1] The results obtained for the maximum (mean (SD)) high serve, low serve, high serve performance, and low serve performance tests recorded during the tests were 6(0.32), 7(0.64), 4(0.45), 3(0.55) respectively. Mean (SD) values for intensive group at the study variables after training were 13(1.42), 12(0.42), 7(0.43), 6(0.46) respectively concluded the intensive exercise group reported improvements in all tests better than distributor exercise group. Then, different training styles appear to lead to worthwhile growths in high and low and serving accuracy test with badminton players. [9] As a result, tracking accuracy is damaged by the net that often occludes players on the far side. As a solution, this paper proposes a method to improve the player-tracking accuracy in badminton video by applying an image pixel compensation technique. Confirm the effectiveness of our method using videos of badminton singles games. [11] There is a difference between learning models of badminton learning outcomes on short backhand service material in groups of high learning motivation students.

Based on the results of this study, it is recommended that physical education teachers pay attention to the appropriate forehand badminton service learning techniques. Readers who are interested in this study are advised to conduct research based on physical, cognitive, affective and psychomotor.

4. Conclusion

The material for Physical and Health Education, which is taught in a badminton game, one of which is forehand service. Badminton service is important because it is the beginning of playing that can produce points. The selection of appropriate learning techniques is needed to improve the achievement of student learning outcomes. Learning techniques in their application are carried out according to the needs of students. The results of this study are in the form of forehand badminton service book. Based on the results of the expert validation of badminton games, a percentage of 71.42 was obtained in the category of "decent enough". Validation from experts in Physical Education, Sports and Health obtained a percentage of 73.21 in the category of "quite decent". The development of forehand service learning techniques can be used for badminton material.

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