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The development of badminton blow basic exercise model in early age 10-11 years (through exercise drill approach)

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ABSTRACT

Background: The purpose of this study was to determine and analyze (1) the effect of developing a model of training on basic exercise of badminton in children aged 10-11 years (through drill exercise approach) (2) comparing the effectiveness level of the original conventional training with the development of technical training models Badminton Basics for Early Childhood 10-11 Years (Through Drill Practice Approach) (3) creating products in the form of training models for basic Badminton in Early Childhood 10-11 Years Old (Through Drill Practice Approach).

Subjects and Methods: This study uses the Model Development method. The data obtained in this study are qualitative data and quantitative data. The population is PB Putra Utama Sukoharjo members aged 10-11 years in the early age category, amounting to 12 people and divided into 2 groups, namely the trial group and the control group respectively. the number of 6 children.

Results: Based on expert validation and group trials. Experts and experts assess the aspects of material quality and content aspects with an average of 87.2% including valid categories to be used, while badminton experts and experts assess the aspect of appearance and effectiveness aspects with a mean score of 90.02% including valid categories for use. Assessment of coaches/trainers through small group trials a percentage of 85.76% valid categories for use. The results of large group trials, based on the aspect of appearance, content aspects, and aspects of the training program, obtained an average score of 80.79% including valid categories for use. 4) The average increase in the trial group (59.06%) was higher than the control group (44.482%). 5) This product is declared valid and effective.

Conclusion: The conclusions of this study are (1) Development of the basic exercise model of badminton punch on early childhood aged 10-11 years (through drill training approach) influences the significant increase in mastery of basic punch techniques, (2) Development of basic technical training models Badminton punches in early childhood aged 10-11 years (through drill training approach) are more effective than conventional models or exercises (3) products in the form of exercise models for basic badminton in children aged 10-11 years (through drill practice approach) are good books and video tutorials become an exercise model that is suitable for the growth and development of early childhood 10-11 years effective and easy to understand as a guide in applying the exercise model.

Keywords: Development, Badminton Technique, Childhood, Drill

INTRODUCTION

Sports have an important meaning in the effort to improve human resources and sports cannot be separated from human life. Especially for children to play it is very important to play while learning or learning while playing, so it is appropriate if physical development is used as a medium to develop students' movement skills since childhood (Sucipto, 2008: 220). To add to the experience and knowledge because of life man consists of two aspects, namely physical and spiritual aspects which cannot be separated. If both aspects develop and grow in harmony, a

harmonious life will emerge in its growth in the development of badminton as a sport of achievement.

Sports achievement is a sport that emphasizes more on improving an athlete's achievement in a particular branch. There are several factors that can determine the occurrence of an increase in achievement in sports. M. Sajoto (1995: 11) states, an increase in achievement in sports is inseparable from the determinants of achievement, namely 1) biological aspects such as potential (basic body capabilities), function of the body's organs and nerves, body structure, and function. 2) aspects of psychology such as intellectual, motivation, personality. 3) environmental aspects such as social environment, facilities, and infrastructure, weather/climate and family. 4) supporting aspects such as trainers, good or systematic training programs, funds, and awards.

Badminton is a game that uses a lot of physical abilities. The physical condition of a person will be very influential and even determine the appearance of motion, as stated by Harsono (1998: 89), will affect the function and organ systems of the body as well as techniques of blow skills with fast movement, coordination, and accuracy high done very quickly between long rallies. a player is required to master one of the basic components, namely basic techniques to achieve achievement. Oriented to the skills that must be mastered by athletes, then to master the basic technique of the blow the good According to Suharno HP (1993: 18) "Technique is a process of movement and verification in practice as well as possible to complete a definite task in the sport" mastery of basic badminton techniques is not easy so it requires an appropriate training method also requires seriousness and tenacity in doing exercises. Exercises to support skills mastery can be done by:

a. Playing

Understanding playing in the Indonesian language dictionary means: "doing something with tools and so on for fun" (Depdiknas, 2006).

b. Drill

What is meant by Drill is: "training carried out by means of continuous with feed shuttlecocks which are approximately 20 pieces". (Tohar, 1992: 60)

c. Blow Pattern

The meaning of the punch pattern is: "a series punch that is carried out sequentially and continuously between one punch technique and another punch technique that is carried out repeatedly so as to make a series of techniques that can be played harmoniously and integrated." (

Tohar, 1992: 70), the three exercises drill training is an exercise that is classified as an exercise not too burdensome physical and mental athletes in undergoing training. And drill training systematically by giving a stimulus to athletes with the hope that they will respond according to the stimulus that comes. According to Sapta Kunta Purnama (2010: 28) "The trick in training badminton skills is the method drill. implementation Drill should be done when not tired because in a tired condition mastering good technical exercises will be difficult to achieve ".

With the proliferation of badminton, there have emerged associations that have developed and provided a platform for these sports lovers. In particular, early childhood in PBSI rules, early childhood athletes are children aged 10-11 years. The chronological age is the age of the Great Child. According to Sugiyanto (1998) "large childhood occurs at the age of 6 to 10 or 12 years" And in coaching clubs usually inhabited by athletes of early age who are very young, who have not experienced maximum growth, basic badminton technical skills are adequate and do not have a stable psychological condition. With the development of mastery of basic movements that are developing.

The lack of exercise models makes athletes tend to be bored with the basic technical training material provided by the coach. A fun training model is needed, in accordance with the growth and development of early childhood ages 11-10 years and helps in the process of early childhood training. As the opinion (Sudjana, 2002: 99) that the media in teaching is indeed the most important role as a tool to create teaching and learning process. Therefore, it is necessary to develop the basic badminton training model that was only conventional to become an exercise model for 10-11 years old children through a drill approach so as to facilitate the trainer in training basic badminton techniques that interest athletes in training who have been impressed saturate into a suitable exercise.

But all of that might be different when there is a study or proof that is carried out for the progress and improvement of the achievements of athletes systematically guided about the effects of the exercises carried out so that it can be used as a means towards the maximum achievement.

Based on the description above, the writer is interested in holding " The development of the basic exercise model of badminton punch in early childhood aged 10-11 years (through the drill training approach) ".

MATERIALS AND METHODS

1. Study Design

The development model in this study was adapted from Borg & Gall's development model (1983: 775-776). The steps of the development research carried out in Borg & Gall are: (1) research and data collection (research and information collection), (2) planning, (3) development of product drafts, (4) initial field trials, (5) revise the results of the trial, (6) field trials, (7) refinement of field test products, (8) field implementation tests, and (9) final product improvements, (10) dissemination and implementation. This procedural development study goes through several stages, as explained by Borg & Gall.

2. Population and Samples

The population in this study were badminton athletes at the age of 10-11 years in the District of Sukoharjo Regency. Taken from one club that is considered to represent the population, PB Putra Utama, which is the association of the most educated athletes among all associations in Sukoharjo regency. For athletes who are at an early age level of 10-11 years in one club, there are 12 children, and determination of the research sample was carried out purposively because of its characteristics. According to Maksum (2009: 41) "purposive sampling is a technique whose characteristics or characteristics are already known in advance based on the characteristics or characteristics of the population." Then, by random sampling, the sampling is done randomly.

3. Research Variables

This study involved two variables:

a. Independent variables Independent

variables in this study are training models.

b. Dependent variable

1. Basic badminton punch technique skills.
2. Approach drill drill

4. The operational definition of variables

To provide the same interpretation of the variables in this study, it is necessary to explain the definition of the existing research variables as follows:

a. A training model is a form or design with reference to well-organized, methodical, and scientific procedures so that the program can help athletes achieve maximum performance. The

training model is also an athlete's means to further improve the results of the skills achieved in sports.

b. Basic badminton punch skills are basic skills techniques used by an athlete to be able to play badminton properly and correctly.

The drill training approach is an exercise that is carried out repeatedly by paying attention to the level of complexity or difficulty of the movement in training.

5. Analysis

Data analysis techniques are divided into 2, namely:

Qualitative data: (1) data reduction, (2) data presentation, and (3) conclusion drawing. Data obtained through data collection tools will be analyzed and then systematically reduced based on data groups, this reduced data will be presented in an organized manner to draw conclusions.

a. Quantitative data: Data processing with a quantitative approach in this study looked at the types of data collected at the time of the study, ranging from the questions of badminton experts, athlete questionnaires, and pre-test - post-test data when testing product experiments.

RESULT AND DISCUSION

Table 1. Overview of Research Results

No	Components	Findings
1	**Preliminary Stage,** Interviewing trainers and badminton experts the ability to master badminton punch techniques in early childhood aged 10-11 years, (n = 3) with the number of questions 8 items.	Mastery of basic badminton punch techniques in early childhood aged 10-11 years not good and also in badminton clubs di Soloraya especially Sukoharjo regency there is no systematic training program that is effective and effective to train the basic techniques of badminton blows in early childhood aged 10-11 years.
2	**Development phase** a. Badminton expert evaluation results (n = 3) with a total of 25 questions. b. Small group trials (n = 6) with a total of 24 questions c. Large group trials (n = 12) with a total of 24 questions	The evaluation results of the three badminton experts obtained 89% percentage, so that the training model can be tested. b. The input of badminton experts, the design of the exercise model still needs to be added to a clearer product image and the design of the exercise program must be adjusted to the training theories. From the results of the small group trial, the percentage was 85.76%, so that the training model could be continued to the Large group test stage. From the results of the Large group trial, the percentage of 80.79% was obtained, so that the exercise model can be continued to the test of the effectiveness of the product.
3	**Test the effectiveness of the product** The difference in the increase of each group	Trial group: 59.06% Control group: 44,482%

Based on table 1, in the preliminary stage needs analysis is carried out with interviews. This needs analysis is very important because it will be able to find and the problems that exist in the field so that eventually it can solve the problems that have been found. Need analysis is the collection of preliminary information on the different conditions that exist in the field and the desired conditions, for the needs of existing problem-solving. The findings of the interview are mastery of the basic techniques of badminton punch in early childhood aged 10-11 years not good and also in badminton clubs di Soloraya especially Sukoharjo regency there is no systematic and effective training program to train the basic techniques of badminton blows in early childhood aged 10-11 years. At the development stage, an evaluation was conducted by expert academics and badminton practitioners. Expert evaluation results get a score of 89% so that the training model can be tested to the next stage by paying attention to expert advice. The input of badminton experts, the design of the exercise model still needs to be added to a clearer product image and the design of the exercise program must be adjusted to the training theories. In addition to expert evaluation at the development stage, product testing was also carried out in small groups and large groups. The testing phase is a stage to look for ratings from badminton athletes at the early age of 10-11 years in Sukoharjo related to the contents of the exercise model. Information was obtained using 24 questionnaires with questions. Small group trials using a sample of 6 people and large groups using 12 people. The trial results were 85.76% in the small group and 80.79% in the large group, this means that the training model can be continued to the effectiveness test stage. The effectiveness test phase aims to determine the level of effectiveness of the product in order to increase the mastery and skills of netting, service, and forehand clear lob badminton players at an early age (age 10-11 years). For the experimental design using pretest and post-test design. Experiment design with one type of treatment (pretest-posttest control group design) was carried out by means of both groups were given an initial test to measure the initial conditions, then the experimental group was given treatment while the comparison group was not given. Based on a comparison of the percentage increase in the test results for the group tried to show that the increase is more effective than the control group

Table 2. Significance Test Data Sample Paired

Group	Test Type	t_{count}	T_{table}	Conclusion
Trial	*Netting forehand*	12,3942	2,571	**Significant**
	Netting backhand	12,4759	2,571	**Significant**
	Short Right Service	12,3507	2,571	**Significant**
	Short Left Service	10,9545	2,571	**Significant**
	Long Right Service	10,8444	2,571	**Significant**
	Long Left Service	12,3935	2,571	**Significant**
Control	*Right Forehand clear lob*	12,5968	2,571	**Significant**
	Left Forehand clear lob	12,9065	2,571	**Significant**
	Netting forehand	11,4229	2,571	**Significant**
	Netting backhand	11,4609	2,571	**Significant**
	Right Short Service	9,9228	2,571	**Significant**
	Left Short Service	11,3755	2,571	**Significant**

Based on table 2 it can be seen that the value of t count > t table, this means that there are significant differences between pre-test and post-test in each trial group and the control group.

Table 3. Test Data for Significance of Non-Paired Samples

Group	Test	t_{count}	T_{table}	Conclusion
Skill level difference Between Try Control	*Netting forehand*	12,2859	2,571	**Significant**
	Netting backhand	11,0535	2,571	**Significant**
	Right Short Service	9,9228	2,571	**Significant**
	Left Short Service	2,7775	2,571	**Significant**
	Right Long Service	7,2336	2,571	**Significant**
	Left Long Service	5,0576	2,571	**Significant**
	Right Forehand clear lob	5,2372	2,571	**Significant**
	Left Forehand clear lob	3,9595	2,571	**Significant**

Based on table 3 it can be seen that the value of t count > t table, this means that there is a significant difference in the post-test between the experimental group and the control group.

CONCLUSION

Based on the analysis and testing of the data mentioned above, conclusions can be drawn from the results of the study, namely (1) Development of the basic exercise model of badminton punch on early childhood aged 10-11 years (through drill training approach) has a significant effect on mastery of basic punch techniques, (2) Development of basic badminton punch training models for early childhood aged 10-11 years (through drill training approach) more effective than conventional training models (3) products both books and video tutorials in the form of technical training models Badminton Basics for Early Childhood 10-11 Years (Through Drill Practice Approach) become training models that are appropriate for the growth and development of early childhood 10-11 years effective and easy to understand as a guide in applying the exercise model.

SUGGESTION

1. Trainers, extracurricular coaches or physical education teachers are expected to use this product as an example of a variety of basic technical training model products.
2. Product socialization of this exercise model is also needed. The hope can help the coach or teacher's role in the training process and can be applied to all 10-11-year-old badminton athletes at clubs, early childhood badminton coaching associations and elementary school or extracurricular teachers anywhere that can be developed better, more creative, and more innovative.

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