

AGILITY EXERCISE MODELS OF BADMINTON

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Abstract

The purpose of this research and development is to produce a model of agility exercise on badminton. This research uses Research & Development (R & D) development method from Borg and Gall. Stages in this research and development are, at the stage: (1) needs analysis, (2) expert evaluation (initial product evaluation); (3) limited testing (small group trial); (4) main test (field testing), (5) Model effectiveness test. The effectiveness test uses the court agility test to determine the level of athlete's fame in mastering the entire game area. Analysis of research data using T test with significance level 0,05. Data analysis is obtained by average value of test data agility as follows pretest: 505.40 and posttest 468.53. So this model of badminton agility training is effective in improving the agility of badminton athletes. Based on the results of the development can be concluded that: (1) With the model of agility exercise for badminton athletes can be developed and applied in the exercise at the club (2) With the agility training model for badminton athletes that have been developed, obtained evidence of this increase in the show on the test data pretest and posttest results of significant differences between before and after the treatment of the model.

Keywords: *Development, Model, Agility, Badminton*

Badminton is a sport that is quite encouraging for the Indonesian people. Through badminton, Indonesia's reputation can be fragrant internationally. Evidenced by the achievements inscribed since this sport was first included in the Barcelona Olympics in 1992. In the four-year sporting event, Indonesia was able to gain two gold medals at once, namely through the men's and women's singles sector in the names of Alan Budi Kusuma and Susi Susanti . Until the end of the 2016 Brazilian Olympics in Indonesia, Indonesia was still able to win a gold medal through mixed doubles in the name of Liliyana Natsir / Tantowi Akhmad.

When the development of Indonesian badminton is less encouraging, especially in the single sector both male and female. This can be seen from the achievement of male singles in 2016 who can only give one title from senior non-centering national training athlete Sony Dwi Kuncoro at the Singapore Open 2016. While for the women's singles number the best achievement was the last time given by the successful Lindaweni Fanetri became a semi-finalist at the 2015 world championships. Looking at the above conditions, badminton players at a young age must be a top priority and need more serious attention, and must be sustainable in order to achieve high achievement. To get the material of talented athletes as the next generation, seeds must be prepared which will be the backbone of national achievements ranging from early age groups to teenagers.

There was a change in the point format in the badminton game in 2006, which initially used the format of moving service and then changed to a rally point format indirectly affecting how to play. The tempo of the game tends to be faster than ever, especially in a single number. Which of all match numbers in the badminton branch, the single number is the most visible change in game characteristics with the change in this point format.

Changing the characteristics of playing will certainly be more beneficial for badminton athletes who have good agility. If it used to be a single player ball system many perform rally, but with the system change into a single player rally point is required to play more tactical, and also play quickly. With the fact like this player must have agility with good quality. This can be seen from the number of men's singles and women's badminton world currently dominated by players who have good agility, such as Lee Chong Wei (Malaysia), Tai Tzu Ying (China Taipei), and Carolina Marin (Spain).

As an achievement sport, of course badminton athletes don't just get brilliant results. There needs to be a long, thorough and thorough preparation. The preparations that were carried out included technical preparation, tactics, psychic and also important was physical preparation. Physical is the foundation of building achievement, because technique, tactics and psychic can be developed well if the athlete has good physical quality. Therefore, it is very important that every badminton player must have a good physical condition. In sports science there is a component of physical biomotor aspects that will support the skills and appearance of badminton athletes. The capabilities of basic biomotor components include five types, namely strength, endurance, speed, flexibility, and coordination.

In badminton, players must perform complex movements, such as jumping, reacting quickly to change direction to chase the shuttlecock, rotate and move wide while still maintaining the balance of the body to cover all areas of the field. From this it can be seen that the agility factor is an important biomotor component in badminton games.

Galaxy Badminton Academy is one of the badminton sports clubs that handle the development of Tegal athletes in particular. To be a representative of Tegal and even Indonesia in badminton. Based on observations made by researchers, both during training and during the match. Galaxy Badminton Academy has poor agility. This can be seen when training games or even during a match, they are still late in returning the shuttlecock, too late in responding to the opponent's blow so that the shooting position is not ideal, lacking agility when changing direction when the opponent changes the direction of the shuttlecock quickly, loses balance when the opponent does a quick and even tricky swipe punch when the opponent makes a hoax.

In addition to athletes of the Galaxy Badminton Academy athletes from other clubs in the Tegal region also have the characteristics of games that tend to be slow. They rely more on physical endurance when playing, this is certainly very contrary to the demands of the current badminton game. Where with the rally point system athletes are required to be faster and tactical in playing. This is one of the reasons why Tegal badminton is difficult to compete nowadays to the national level, competing at the regional level of Central Java is already difficult. This is inseparable from training patterns that prioritize techniques and endurance, regardless of changes in game characteristics. badminton right now.

Looking at the dimensions of motion requirements and the phenomena described above, the researchers intend to conduct research to provide an alternative development of agility training models. So that it will enrich the model of agility training in badminton.

The ultimate goal of this development research is to produce a product in the form of a book containing agility training models on the badminton branch, so that it can complement the existing training assistance, namely that the training can be more: 1) Effective, meaning that it is complete in improving the effectiveness or ease in developing ability to play in agility. 2) Efficiency, meaning that it is a complete training aid, where with minimal costs and time so that maximum results can be obtained in the material of agility training. 3) Interesting, meaning that it is a complete exercise that has appeal so that the athlete can be motivated to use it and be able to practice more optimally.

Sukmadinata (2012: 164) states that "research and development is a process or steps to develop a new product or refine an existing product that can be accountable.

James Tangkudung and Wahyuningtyas (2012: 60) exercise model is an imitation, a simulation of a fact composed of a special element of a number of phenomena that can be observed and investigated by someone.

Subardjah (2004: 17) states that badminton is a branch that requires speed and mobility of movement combined with agility that is usually used to close the field, or to pursue it in any direction, the movement is rapid and followed by changes in direction, either forward, backward, to left and right side.

Basic techniques of badminton skills according to Sapta Kunta Purnama, among others: stance: standing attitude in badminton games must be mastered, while standing attitude can be divided into three forms, namely when serving, receiving services, and when in play. (b) the technique of holding the racket: the accuracy in the handle greatly affects the resulting punch. (c) stroking techniques: to be able to master these basic techniques it is necessary to have rules that must be carried out in practice, so that you master good skill levels. (d) footwork techniques: in the game the foot badminton functions as a support for the body to move in all directions quickly, so that it can

position the body in such a way as to be able to carry out punch movements effectively. (Sapta Kunta Purnama. 2010: 13).

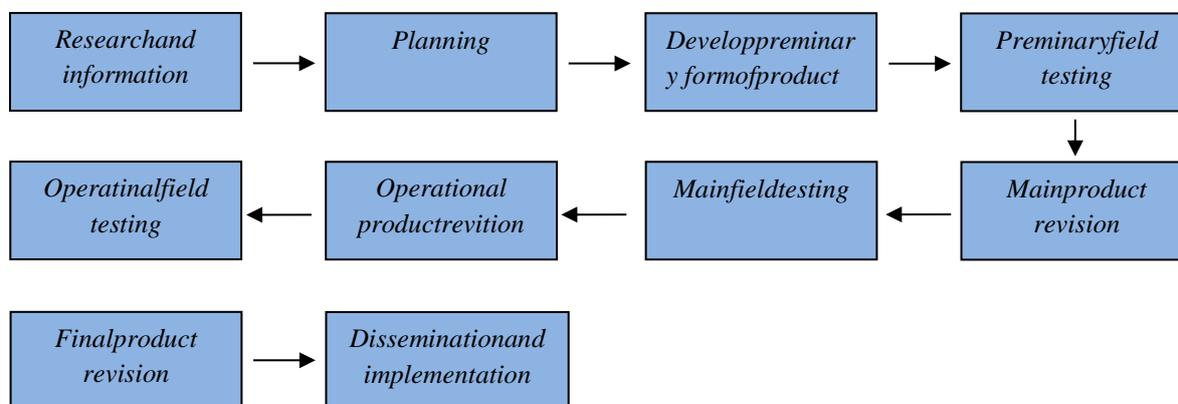
Agility is one element of physical condition that plays an important role especially in the sports game including badminton, especially when chasing shuttlecock return from opponents. Agility (agility) is defined as "rapid whole-body movement" (movement of the body quickly), with changes in motion which is fast and directed and directed in response to stimulus (changes in directional velocity). (Dowson Brian and Henry Greg J. 2015: 36)

Widiastuti (2011: 17) agility is the ability to change the direction or position of the body quickly done together with others. Harsono (2015: 21) says that, agility is the ability to change the direction and position of the body quickly and precisely while moving, without losing balance and awareness of his body position.

METHOD

This research was carried out at Eka Pratama Badminton Club, Pb. Satria Slawi and Pancasakti Badminton Club. The time of this research is planned for 2 (two) months. Users who become the target in research of development of agility training model for badminton club are Pancasakti Badminton Club athlete consisting of early age group, children, and beginner this is assumed to facilitate the implementation of product trials. The subject retrieval technique applied in this study is purposive sampling, which is also known as sampling consideration or based on certain considerations.

Research on development of model of badminton agility exercise using research and development model (Research and Development) from Borg and Gall (2009: 775) consisting of ten steps, among others: (1) Research and information collecting (2) Planning (3) Development of the preliminary form of product (4) Preliminary field testing (5) Main product revision (6) Main field test. (7) Operational product revision (8) Operational field testing. (9) Final product (10) Dissemination and implementation.



In research and development is certainly expected to produce a product that can be used in the agility exercise with a new model design or refine the existing complete so that can be used as a source of other exercises in the process of training.

RESEARCH RESULT

After going through small group trial and revision of second phase product component development model of badminton agility exercise, followed by field trials and revision of third stage component product development model of badminton agility exercise, then to know the average of product effectiveness, carried out the implementation process with data collection effectiveness test using T test with SPSS software. The product trial was carried out by 35 athletes.

Above has been presented tables of average results of pre test and post test of agility. The pre-test was carried out after a large group test. Pre test is done before applying 30 models of badminton agility exercises. The average result of pretreatment practice test for badminton is 505.40. After the treatment with 30 models of badminton agility exercise then after the treatment is done post test or final test and the average post test is 468.53.

The results of the badminton agility training between pretest and posttest will be described in the T Paired Sample Test with SPSS 16 below.

Table 4.8. Badminton Agility Training

1.8 Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|-------------------------|--------------------|-------------------|--------------------|---|---------|--------|----|--------------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Pre_Test - Post_Test | 1.05343 | .26422 | .04466 | .96267 | 1.14419 | 23.587 | 34 | .000 |

In testing the significance of differences with SPSS 16, the results obtained mean = 1.05 t-count = 23.587, df = 34 and p-value = 0.00 < 0.05 which means that there are significant differences in badminton agility training before and after the badminton agility training model treatment.

The following comparison diagram of the average results of the level of badminton agility test before giving treatments and after giving treatment with badminton agility models with a bar diagram in the following figure:

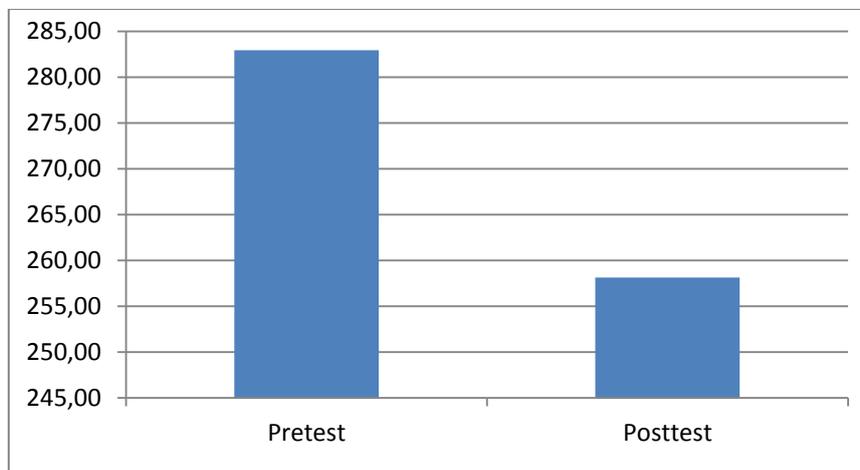


Figure 4.1. Rod Diagram Badminton agility

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