# THE DEVELOPMENT VARIATION MODELS OF PHYSICAL EXERCISE FOR BEGGINER FOOTBALLS ATHLETES

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#### Abstract

The purpose of this research is to develop a product in the form of variation of physical exercise model of football sport for beginner athlete. The method used in this research is the method of research and development which means developing a product or creating a new product. The population used is all students who follow football extracurricular in junior high school number 1 Palembang amounted to 17 people. Data collection technique in this research is pretest and posttest method by performing test before and after applying treatment of variation of exercise model. Technique of data analysis in this research use T-test. Based on result of output by using SPSS 16 that mean value from 17 tester that do test, test result before given model of exercise is 18.71 second and after given treatment with variation of model exercise 15.35 second, it means that the average value achieved by the speed increase in the time record. Based on the results of this study, it can be concluded that there are significant differences before and after being given treatment variation model physical exercise of football.

Keywords: Model Development, Variation Exercise, Football

#### INTRODUCTION

Football is a big ball games sports. According Muhdhor (2013: 9) Football is a ball game which is played by two teams with each teams composed of eleven people. To play this game perfectly, football player must know some basic techniques in this game. Technique is a fundamental thing that must be mastered by football player. To master the ball and create scoring chances, the opponent's team members must improve their technical and physical abilities. This ability is complementary to each other because in the game must master the skill in game techniques and also must be supported by the physical prime.

Same as in the football sports, the agility component is very needed to the football player as suggested by Nala (2011: 154) that agility is a very dominant biomotor component in a branch of team sports as well as individuals such as football, basketball, martial arts and so on. Imaryati (2008: 41) Agility is the ability to change the direction and position or parts quickly and precisely. Exercise models are needed in the training process, with a lack of variation of the exercise model and also seemingly conventional, and when exercise, they only focus in technical exercises without regard to the agility component, but it is also very visible, the exercise dose is given to young athletes and for senior athletes is same, in principle the material readiness and dose of exercise should be adjusted to the age of the athlete.

The things that happen in the field, of course very reasonable if causing the boredom of the young athlete is because without any variations of exercise and make the place of exercise look quiet. Researcher was interested to research in SMP Negeri 1 in the city of Palembang in an effort to get a way of practicing physical exercise easily to improve the ability of physical components.

Objective of study research

The objectives of the research development of physical exercise model for beginner athlete are:

Developing a physical exercise model through a variety of exercises for athletes beginners football sport that is valid and practical.

Understanding the effectiveness of the physical exercise model development through variations of exercise for athletes beginners football sport.

### METHOD OF RESEARCH

The method that used in this research were research and development method. Research and development method is a research method were used to produce certain product, and test the effectiveness of the product. The research and development step consists of 10 stages (Borg and Gall in Sugiyono, 2017: 37).

This model is descriptive, which is a procedure that describes the steps to be followed in producing the product. Each development can choose and find the most appropriate step for its research based on the conditions and constraints faced. Research and development seeks to produce a component in the education system through development and validation steps. Then, it was mentioned that the research and development procedure basically has two main objectives, they are: 1) developing the product, and 2) testing the effectiveness of the product in achieving the goal. From the opinion of experts it can be concluded that the development research is a method used to develop theoretical ideas to create a product tested in order to establish a research step based on the conditions and constraints faced.

Subject

The subjects of this study was using a large groups and small groups as a product test, that consist of 5 beginners athletes as a small group trial and 17 athletes as a large group trial.

## **RESULTS**

Overall, there are three general objectives to be revealed in the intriduction study or needs analysis, they are;

How intense is the process of physical exercise of football especially on the beginner athlete.

How important is the development of a physical exercise model through a variety of media-based training tools.

What constraints and support are encountered in the development of physical model of football-based media training tools.

Based on the general objective, the researcher conducted a introduction study using in-depth interviews to the football coach who trained at SMP Negeri 1 Palembang and conducted the survey because the main objective is to perform technical preparation by exploring in advance the characteristics of research subjects and places will do research development of physical exercise model through variation of physical exercise football media-based aids. This is to determine how important the physical exercise model through variations of exercise for athletes beginners football sport that will be developed by researchers.

Development of physical exercise model through variation of exercise for athlete at football sport which researcher made after expert evaluation, then first phase revised. after product design revised, then model tested in small group trial with 5 research subjects.

After the product development model of physical exercise model is tested on a small scale and has been revised, the next stage is to conduct large group trials. Based on the results of the limited trial (small group trial) that have been evaluated, then the researcher revised the initial product and received 10 items of physical exercise model that will be used in large group trials.

The next step after the model second phase revision then followed by testing the product to large groups by using research subjects as much as 17 football beginner athletes of SMPN 1 Palembang.

Value of Pretest and Postest Results
Table 1. Pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
	17	3	17.6	17.6	17.6
	18	4	23.5	23.5	41.2
Valid	19	6	35.3	35.3	76.5
	20	3	17.6	17.6	94.1
	21	1	5.9	5.9	100.0
	Total	17	100.0	100.0	

Based on the table, it can be concluded that the result of the pretest is at the speed of time, the time range obtained at pretest is 17 seconds to 21 seconds with 3 people was reaching 17 seconds, 4 people with 18 seconds, 6 people with time 19 seconds, 3 people with 20 seconds, and 1 person 21 seconds and the total is 17 people.

Table 2. Postest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15	11	64.7	64.7	64.7
	16	6	35.3	35.3	100.0
	Total	17	100.0	100.0	

Based on the table, it can be concluded that the test results after the treatment has been given that 11 people reached 15 seconds and there were 6 people with 16 seconds. So it can be concluded the differences between pretest and postest that were at the speed of time, the time range obtained at the time of pretest was 17 seconds to 21 seconds while, on postest 15 seconds to 16 seconds, the description can be said that the physical exercise model developed, effective and can be used by beginner athlete.

Table 3. Coefficient of Correlation

## Paired Samples Correlations

	-	N	Correlation	Sig.
Pair 1	pretest & posttest	17	273	.244

Based on the ouput results of the table that the coefficient of correlation before and after had been given variation of exercise model is -.273 with p-value 0.00 < 0.05 so the conclusion is significant.

Tabel 4. Average Value Group Statistics

Result	N	Mean	Std. Deviation	Std. Error Mean
PRETEST	17	18.71	1.160	.281
POSTEST	17	15.35	.500	.125

Based on the output results was using SPSS that the average value of physical test results before the given exercise model is 18.71 seconds and after being given treatment with the exercise model 15.35 seconds means that the physical exercise provided increased in the speed of time.

Tabel 5. The Significance Differences of Pretest and Postest

		Levene's Test for Equality of Variances	t-test for Equality of Means						
		F	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Con Interval Differen	of the
HASIL	PRETEST POSTEST	7.995	10.590	16	.000	3.331	.315	2.689	3.972

In test of significance difference was using SPSS 16 got result of t-count = 10,590, df = n-1 (17-1) = 16 and p-value = 0.00 < 0.05 which means there is significant difference before and after the treatment of variation of physical exercise model. Based on the information, it can be said that the varieties of physical training developed, can effectively increase the physical component for the beginner athlete.

## Interpretation

Based on the result of the figures in the table it can be concluded that the given physical training model can and feasible for use in the physical exercise process of football as well as effective to improve the ability of agility, speed, coordination and balance altet. There is a comparison of numbers that indicate that the results of the initial and final tests are progressing, from the initial test and then given treatment in the form of physical exercise models that have been developed and then held a final or post test to determine the effectiveness of the models developed, so the model effective physical exercise to improve the physical ability of a football athlete.

We can see the disadvantages and advantages of the products were made, there are advises that researcher will convey to achieve this perfect product, as for the intent is as follows; because this is a model of exercise so, it is necessary to adjust the movement to athletes who practiced.

Using of a simple tool and this tool is very concerned about safety, comfort, and athletes feel safe, making athletes are more maximal when did the exercises model that has been given.

Characteristics and understanding of the athlete, requiring the trainer to provide a detailed explanation to the athlete to explain the suggested movements new to do.

The physical exercise model that was created by the researcher is a product that has purpose to help the trainer in conveying the lesson, how important physical (agility), improving physical ability of athlete, and as reference of train materials. This exercise model is made based on the level of athlete's needs in training activities, especially football sport.

This product after reviewing some weaknesses that need improvement, it can be delivered several advantages of this product, among others;

- 1. Improve the ability of athletes.
- 2. The athletes are more enthusiastic in the physical exercise of football.
- 3. Athletes are helped by the media tools used during the exercise.
- 4. The physical exercise model is effective and efficient,
- 5. As reference of training materials.
- 6. Donations for science, especially football coaches in Indonesia.
- 7. This exercise model is done from the easiest to the most difficult.

#### CONCLUSION

Based on data that was obtained from small scale test results and large scale trials and discussion of research results can be concluded that;

With the development of a physical exercise model of football can improve the ability of movement and ability to practice effectively and efficiently.

The development of this physical exercise model can help the young and old trainers to teach the athletes by the appropriate training and it can improve the performance of the athlete.

## Suggestion

Before disseminated should this physical exercise model be rearranged to be better, among others, about the packaging and content of the physical exercise model material that has been developed.

For research subjects should be done on a broader subject that is used as a large group. In order for this physical exercise model to be used by football coaches, so it should be printed more, so that later football coaches in Indonesia can understand well, so it can apply it and make it an effective and efficient training process.

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