

## DEVELOPMENT OF FOOTBALL SPORTS AGILITY MODEL IN SPECIAL PREPARATION STAGE

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### ABSTRACT

The purpose of this study is the need for appropriate soccer sports agility training models at the special preparation stage. This study aims to develop a soccer training model at a special preparation stage to improve agility. The research method used in this research is the development research method proposed by Brog and Gall. The researcher adapted the research procedure into 3 stages, namely: the needs analysis stage, the product development stage, and the product effectiveness test stage. At the needs analysis stage, the interview method with soccer coaches was stated which stated that there was a need to develop a new training model to improve agility. The second stage is the product development stage with expert judgment with a percentage of 82%. Furthermore, product testing, the results of small group trials with a percentage value of 80% and in large group trials with a percentage value of 85.78%. Next in the third stage is the product effectiveness test by comparing experimental groups using an exercise model developed with a control group that uses conventional training. The design of the experimental design uses the Two Group pretest posttest design. Different values of T-scores for the agility test of the experimental group 85.22 and the control group 40.33. The

development of a soccer training model proved to be significant in increasing agility at the special preparation stage.

**Keywords:** Development Football Agility

## INTRODUCTION

Football is a very popular team sport and is played by almost 200 million players worldwide (Dupont et al., 2002). At present the development of football games is quite rapid, not only as recreational sports or just leisure time, but football has become an achievement sport that can be proud of by all nations in the world because it can trigger national development. In general, soccer players perform 150-200 actions that are fast and strong during a match, for example: running, changing speed and direction, tackling, acceleration, deceleration, and jumping (Mohr M et al., 2003). Acyclic football and intensity are classified as high-intensity sports (Bangsbo et al., 2006). This high level of intensity is considered decisive in football and causes high fatigue that affects player performance during matches (Rampinini et al., 2009; Lyons M et al., 2006).

The development of science and technology in the present is increasingly rapid, competition in sports achievements is higher, then the work of training should not just about the obligation to carry out the task of training only. A coach must be able to plan training according to the athlete's condition, time he has, facilities owned, and targets to be achieved. In planning the program, it will not be separated from the name periodization of the training program. Periodisasi is a theoretical model that offers a framework for planning and systematic variation (Brown LE and Greenwood M, 2005). Special preparation phase is one of the planning phases of training that is in the periodization of training (Bompa, 1999: 174). This phase is very important because it will determine the success of the actual match. physical training in special preparation becomes more specific to the sports branch (Bompa and Haff, 2009: 127) Given the importance of planning exercises in the special preparation phase, researchers develop a model of soccer sports agility training at a special preparation stage.

## METHODOLOGY

This research use development research. Research or Development research is a research method used to produce certain products and test the effectiveness of these products (Sugiyono, 2015: 407). This research was conducted at the Gelora Merdeka soccer field in Sukoharjo, from October 2018 - June 2019. The population in this study were *Pasoepati Football Academy players* consisting of 36 under 17 years players. The sampling technique uses purposive sampling based on the position of the players namely defender, midfielder and forward, so that 16 players are obtained as the experimental group and 16 players as the control group. The stages of research carried out adopted research development procedures (Brog and Gall, 1983: 775) development methods should contain (1) needs analysis, (2) product development with expert judgment and field trials (3) product trials or effectiveness tests with The experiment used a two group randomized pretest and posttest design. Research Instruments.

The instruments used in this study are the needs analysis phase using free interviews, expert judgment, and field tests using questionnaires, and effectiveness tests using the Illinois Agility Run test. The data analysis technique uses qualitative and quantitative analysis. Qualitative data in the form of interviews from preliminary studies, quantitative data in the form of prerequisite test results in the form of a normality test and homogeneity test, while the significance test using the t-test (paired t-test).

**Table 1.** Normality Test

Group	N	Average	SD	$L_{count}$	$L_{table} \alpha(0,05)$	Result
<b>Eksperiment</b>	16	49,99	9,98	0,1384	0,213	Normal
<b>Control</b>	16	50,07	9,95	0,1438	0,213	Normal

Source :Primary Data, 2018

**Table 2.** Homogeneity Test

Group	N	$\sum X$ and $\sum Y$	Skor Average	$\sigma$ data	$F_0$	$F_t$	Result
<b>Eksperiment</b>	16	799,86	49,99	9,98	1,003	2,40	$F_0 < F_t$ <b>Homogen</b>
<b>Control</b>	16	801,16	50,07	9,95			

Source : Primary Data, 2018

**Tabel 3.** Significance Test

Group	Result		Diff Score	T <sub>count</sub>	T <sub>table</sub>	Result
	Pre-Test	Post-Test				
<b>Eksperiment</b>	799,86	885,08	85,22	8,88	2,145	Significant
<b>Control</b>	801,16	841,49	40,33	5,78	2,145	Significant

Source : Primary Data, 2018

## RESULT AND DISCUSSION

The results of the needs analysis in the form of interviews with the trainer as the first stage, it can be concluded that: (1) the physical exercise program carried out is still not well scheduled, (2) the player's agility is still not good, (3) the trainer expects the physical training model to be integrated into the game, (4) the coach expects the development of a new training model developed in the form of a guidebook. The second stage is the product development stage, namely the initial design assessment of academic experts in the physical condition, and the expert on soccer practitioners as a step towards the field trial. The evaluation results of academic experts on the physical condition obtained a percentage of 84% with valid information through several criteria for assessing eligibility and worthy of field trials with revisions according to suggestions.

The results of evaluation by academic experts on physical conditions provide advice and input as follows: (1) Submission of material and giving examples must be correct so that players can easily make movements during training, (2) There needs to be a break between reps. The advantages of this product are the forms of training that are made varied so it does not saturate. The results of expert practitioner evaluation 1 of football's physical condition obtained a percentage of 80% with valid information through several criteria and worthy of field trials with revisions according to suggestions. The results of evaluating expert practitioners 1 on soccer physical conditions provide suggestions and input as follows: (1) Capability of the player's ability to differ in accepting material so that in the provision of material must be clear and easy to understand, (2) Need for good ball control to stop the ball on the target and try the ball not to get out of the area because it will disturb the course of the exercise. The advantage of this product is that the agility training model made its movements more varied and has never been given before, adding to the enthusiasm and enthusiasm of the players in training. The results of expert practitioner evaluation 2 of football's physical condition obtained a percentage of 82% with valid information through several criteria and worthy of field trials with revisions according to suggestions. The results of expert practitioner

evaluation 2 of the physical condition of football provide the following suggestions and inputs: (1) There is a need for good coordination between players because of the practice of using the ball, (2) More supervision is needed from the trainer so the exercise runs smoothly. The advantage of this product is that it is easy to do and has a good variety of movements to increase the player's enthusiasm for training.

Next is the field trial stage, which is the product testing of football sports agility models at the special preparation stage through trials of small groups and large groups. The total percentage of the results of the trials of small groups of 8 players is 80% with valid information. The total percentage of the results of large group trials totaling 32 players is 85.78% with valid information. The conclusion is based on a small group test and a large group that the soccer sports agility training model at the special preparation stage can proceed to the effectiveness test phase.

The third stage is the stage of effectiveness testing, namely by conducting product testing that is made, namely the model of soccer sports agility training at the special preparation stage. Then the experimental group was treated using the developed model and the control group using conventional models. Then test the analysis prerequisites using: 1) Normality test for frequency distribution and 2) Test for homogeneity Furthermore, the homogeneity test stage is intended to test the similarity of variance in the population. The homogeneity test of population variance in this study was carried out by ANOVA analysis. Based on the results of homogeneity test in table 2. the  $F_{table}$  value is 2.40. If the value of  $F_{count} < F_{table}$  can be concluded that the experimental group and the control group have homogeneous data.

Furthermore, to determine the increase in treatment outcomes in the study, a significance test was carried out using the t-test (paired t-test). Based on the significance test in table 3. the results of the experimental group  $T_{count} > T_{table}$  is 2.145 thus it can be concluded that the product development model of significant training in improving agility while the results of significance tests conducted in the control group obtained  $T_{count} > T_{table}$  is 2.145 so it can be concluded that significant exercise in increasing agility. Different values The experimental group  $>$  Control group thus the product development model in the experimental group was more effective than the exercise model in the control group.

This development product contains a model of soccer sports agility training at the special preparation stage contained in the guidebook. The discussion of the results of this study provides an interpretation of the results which are further linked to relevant theories. Based on the research procedure produced three discussion groups.

The first discussion is a preliminary study. Preliminary study is an activity carried out by prospective researchers to conduct temporary data collection for the sake of certainty the steps that will be passed in the research process. Brog and Gall (1983: 753) state that, "needs analysis is the collection of initial information on the differences in conditions in the field and desired conditions, for existing problem solving needs". Researchers chose the subject of the Pasoepati Football Academy player because they had a good development of training coaching.

The second discussion is product development, the aim is to obtain the design of an exercise model that is in accordance with the theory. a) The theoretical study used is football theory, physical condition, training, and planning an exercise program. b) Preparation of development drafts consisting of: (1) theoretical studies as the basis for the preparation of forms of training and preparation of physical training programs, (2) forms of agility training in accordance with the characteristics of the physical needs of football players, (4) Evaluation of product development, namely evaluation of physical conditions

The third discussion is the product trial stage. The results of the study consisted of expert evaluations in the form of qualitative and quantitative data, small group testing, large group testing, product revision, effectiveness test of the product of soccer sports agility training models at the special preparation stage.

## **CONCLUSION**

Based on the results of this study, the models of soccer sports agility contained in the guidebooks worthy of being used in the player's training process with the details of the academic experts' validation results of 84% with valid information, practitioner 2 is 80% with valid information, and practitioner 2 is 82% with valid information. The percentage of small groups is 80% with valid information and the percentage of large groups is 85.78% with valid information. Based on data analysis and discussion that has been done, it can be concluded that the training model on the product made can significantly improve player agility.

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