



THE DEVELOPMENT MODEL OF THE BASIC TECHNIQUES OF EXERCISE AND PHYSICAL EXERCISE ON FUTSAL PLAYERS LEVEL INTERMEDIATE

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Abstract:

The lack of the basic technique skill and physical ability in intermediate futsal players became the matter of the current issue. The coaches suggested that the basic techniques and physical ability of futsal are the weak part of intermediate level players. The lack of specific exercise that aimed at improving the skills of basic techniques and physical ability levels intermediate futsal players becomes the reason of this weakness. The method uses in this research is the developmental research method, that does with three stages, which are, (1) necessity analysis stage (preliminary study), (2) the stage of testing the product, (3) the stage of testing the effectiveness of the product (experimental). The result showed that basic technical skill is group experiment $t_o = 232.379 > t_{table} = 4.032$, control group $t_o = 36.368 > t_{table} = 4.032$. The physical ability of futsal, the power of group experiment $t_o = 47.222 > t_{table} = 4.032$, control group $t_o = 47.558 > t_{table} = 4.032$. The ability of group experiment $t_o = 79.915 > t_{table} = 4.032$, control group $t_o = 68.935 > t_{table} = 4.032$. The speed of group experiment $t_o = 107.573 > t_{table} = 4.032$, control group $t_o = 41.029 > t_{table} = 4.032$. The strength of group experiment $t_o = 164.841 > t_{table} = 4.032$, control group $t_o = 82.839 > t_{table} = 4.032$. Based on the results of the research, it can be concluded that the product development exercises model of basic techniques and physical exercises for Futsal players in intermediate level proved effectively improve

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the skills of basic techniques and physical ability on levels intermediate futsal players in the city of Malang.

Keywords: training model, basic techniques of futsal, physical exercise, futsal

1. Introduction

Today, a futsal sport is not something strange or unfamiliar on wide community ears, almost everyone can play futsal. "The futsal sport grows rapidly across the country in recent years. This rapid development is very useful, it is because futsal has some positive aspects that will encourage conventional football development"(Scheunemann, 2011:9). Futsal is derived from Spain "Futebol Sala" which means room soccer. However, there is a difference between the two that stand out. Futsal is a "*game that quickly with the short time with narrow space*" (Tenang, 2008:68). Therefore, in a futsal need a player who has the speed and agility. In addition to the conditions of the futsal field which is so small increase the goals possibility. In terms of the relatively small field almost no room to make mistakes. Therefore futsal needs good cooperation between players through an accurate passing, not just to get past opponents.

The futsal athletes must be mastered the basic technique of futsal, these techniques is a technique that supports the rhythm to create a good game and is one of the factors that can win the game. According to Lhaksana (2011:5) "*...in futsal sports, the players also learn to play more accurate in terms of the basic techniques, such as control, passing, dribbling, and shooting*". In addition, according to Hermans & Engler (2011:23-41) the Futsal players have to a good skill in some basic techniques, such as "*ball reception (reception of the ball), dribbling and ball control (herding and controls the ball), passing (pass the ball), shooting, feints and trick (trick and fake motion), goalkeeping technique (technique goalkeeper)*". Then, beside mastered all basic technique, good tactics and strategy the players must have a good physical condition because in futsal match, demanding the players to move into mobile in hiking field. "*The fewest number of players in a futsal team becomes the very crucial thing that causes the players have to survive and attack*" (Tenang, 2008:20). In addition, according to the Scheuneman (2011:10) "*game of futsal walking quickly where all players are required to always be involved in either attack or survive, thus endurance at the same time speed player honed well*".

The good physical condition will support players to play nice in the field; moreover, it can support the player's concentration and focus during play. "*Playing futsal demands an active role and high concentration and prima stamina of the player*" (Tenang, 2008:63). The Futsal athlete has to keep and pay attention to the development of the physical condition it is very important because without a good physical condition

athletes cannot do the exercise perfectly. According to Harsono (1988:100), "*some physical components that need to be noticed to develop is a cardiovascular endurance, strength, endurance, muscle strength, flexibility, speed, stamina, agility and power*". Then, the aspects that required in physical training model in the game of futsal are, "*endurance (endurance), strength (strength), speed (speed), gentleness (suppleness), coordination (coordination)*" (FIFA, 2012:69-71). Furthermore, in a book written by Lhaksana (2011:17-18) States that "*the following components of physical condition is a must owned by futsal players are endurance, strength, speed, agility, explosive power, flexibility, accuracy, coordination, balance, and reaction. The dominant physical exercise component owned by futsal players is endurance, strength, speed and course without leaving physical components of others.*" In addition Martens (2012:235) stated that "*the estimation of energy and muscle in futsal sport are high energy aerobic and anaerobic fitness with medium muscular fitness flexibility, medium strength, medium to high endurance, high speed, moderate to high power*".

In improving the ability model practice of futsal players, the coaches can use a variety of ways in delivering it. The coach can use the board strategy; use the practice field directly, through the audio-visual media to utilising electronic media. The Delivery and exposure model exercises can be done in various ways, including by way of using electronic media. The advances in technology are indeed inseparable with the development and progress in the world of sports. The task of the coach to transfer and explain the program and the purpose of the exercise become easier using the electronic media. One of the functions of electronic media in the explanatory model of exercise is able to use the media flip book maker.

Flip book maker media is one of the expected media, which can help someone to save the book in a digital form and access a wide range of matters relating to the science, of course with an interesting display of serving. "*Flipbook maker is one piece of software that can be used to present the module in the electronic display*" (Wijayanto & Zuhri 2014:626). According to Sugiyanto et al in Rasiman (2001:37) "*flipbook maker is software used to create the look of a book or other materials into a digital flipbook-shaped electronic book*". In addition, Wijayanto in Rasiman (2001:37) state "*Flipbook maker is software that has the function to open each page in a book. The final result can be saved in a format .swf, .exe, .html*".

In the process of making the learning and exercise models easier, that module has been made into flip book maker media which can also give to the players so that the players can learn its own training models already made. Flip book maker media can also be accessed through a variety of media, such as computer and electronic laptop.

2. Materials & Method

This research uses development research methods (research and development), which uses procedural development methods from the Borg and Gall (1983:775), this research has 10 steps, that are; research and information collecting, planning, develop preliminary The product, preliminary field testing, main product revision, main field operational testing, product revision, operational field testing, the final product revision, dissemination and implementation.

Then, the researcher does some stage of research as follows. The first stage analyses the necessity and draw up the development draft and product manufacturing-based media flip book maker. The second stage, testing by the expert (the expert judgement), a product test stage I (small groups) with samples of 12 players SM Futsal Academy, revision products I, revision product II, product test stage II (a large group) and a sample of 24 players futsal in Bina Harapan Setia (BHS), product revision III. Data analysis product test is using analytical techniques descriptive percentage analysis, each analysis base on the approach used by using percentage (%). The third stage, the effectiveness test (experimental) product with compare group experiments and control group, with a total sample of 24 players SM Futsal Academy and Bina Harapan Nusantara (BHS). 24 futsal players divided into two groups, 12 players for the basic techniques of futsal (6 players group experiment and 6 players control group) and 12 players for group physical exercise futsal (6 players group experiment and 6 players control group). The draft design use pre-test and post-test design by choose the group at random (two group randomise pre-test and post-test). The counting procedures of the results of the effectiveness test the product (experiment) using t-test (test of significance).

3. Results

A. Stage one

Necessity analysis is analyse the results of the interviews with the futsal coach, from the result of the first collected information the researcher found that mastery skills and physical abilities of the basic techniques of Futsal players in intermediate level are weak. The coach suggested that the basic techniques and physical ability of futsal are weak to be mastered by the players at the intermediate level. It is also affected by the lack of specification of the given exercises specifically aimed at improving the skills of basic techniques and physical ability of futsal players in intermediate levels. In addition, the coaches also argued that the condition where that futsal players is cannot

learn the basic technique quickly, the players are also often difficult to understanding the physical exercises material because it is often constrained by the everyday activities of the players so that this make the physical condition of the players is bad.

B. Stage two

In this second stage, the researcher does some product test. Product testing begins with evaluation from the experts, do the test in a small group and large group testing. The results of the evaluation conducted the expert futsal players obtained average value 88.40%, with details 85.45% from the futsal expert I and 91.36% from the futsal Expert II. The two experts assessing futsal with answer the scale of assessment with 44 questions. The results of the evaluation conducted expert physical exercise gained average 83.33%. Experts assess physical training by filling out the assessment scale which amounted to 48 grains of matter. The results of the evaluation conducted an expert media obtained an average value of 82.66%. Media experts are tested by filling out the scale of assessment to 30 grains of matter. While the results of the evaluation of the test sample with a small group of 12 futsal players are 78.84% (quite valid) while testing a large group with a sample of 24 players futsal is 84.30% (valid).

C. Stage three

The third stage is effectiveness product test (experimentation) with the results of the study is as follows.

Table 1: The Basic Futsal Technique Result

| Test | Group | N | Test Result | | Different Value | t _o | t _{table} α 0.01 | Conclusion |
|------------------------|------------|---|-------------|-----------|-----------------|----------------|---------------------------------|-----------------------------------------------------------|
| | | | Pre Test | Post Test | | | | |
| Futsal Basic Technique | Experiment | 6 | 7,80 | 7,20 | 0,60 | 232,379 | 4,032 | t _o > t _{table} Significant |
| | Control | 6 | 7,87 | 7,61 | 0,26 | 36,368 | 4,032 | t _o > t _{table} Significant |

Based on the results in table 1, it is know the result test of basic futsal technique are, experimental group $t_o = 232.379 > t_{table} = 4.032$ (significant), while the control group $t_o = 36.368 > t_{table} = 4.032$ (significant).

Table 2: Futsal Physical Abilities Test Results

| Test | Group | N | Test Result | | Different Value | t _o | T _{table} α 0.01 | Conclusion |
|-------------------|---------------------|---|-------------|-----------|-----------------|----------------|---------------------------------|-----------------------------------------------------------|
| | | | Pre Test | Post Test | | | | |
| Futsal (Power) | Physical Experiment | 6 | 13,44 | 14,03 | 0,59 | 47,222 | 4,032 | t _o > t _{table} Significant |
| | Physical Control | 6 | 13,38 | 13,72 | 0,34 | 47,558 | 4,032 | t _o > t _{table} Significant |
| Futsal (agility) | Physical Experiment | 6 | 98,99 | 96,58 | 2,41 | 79,915 | 4,032 | t _o > t _{table} Significant |
| | Physical Control | 6 | 101,08 | 99,76 | 1,32 | 68,935 | 4,032 | t _o > t _{table} Significant |
| Futsal (speed) | Physical Experiment | 6 | 20,62 | 18,59 | 2,03 | 107,573 | 4,032 | t _o > t _{table} Significant |
| | Physical Control | 6 | 20,68 | 19,73 | 0,95 | 41,029 | 4,032 | t _o > t _{table} Significant |
| Futsal (strength) | Physical Experiment | 6 | 229,25 | 278,40 | 49,15 | 164,841 | 4,032 | t _o > t _{table} Significant |
| | Physical Control | 6 | 227,85 | 258,60 | 30,75 | 82,839 | 4,032 | t _o > t _{table} Significant |

Based on the results in table 2, it is know the result test of futsal physical ability are, the power of group experiment $t_o = 47.222$ $t_{table} > 4.032$ (significant), whereas the control group $t_o = 47.558$ $t_{table} > 4.032$ (significant). The agility of group experiment $t_o = 79.915$ $t_{table} > 4.032$ (significant), whereas the control group $t_o = 68.935$ $t_{table} > 4.032$ (significant). The speed of group experiment $t_o = 107.573$ $t_{table} > 4.032$ (significant), whereas the control group $t_o = 41.029$ $t_{table} > 4.032$ (significant). The strength, group experiment $t_o = 164.841$ $t_{table} > 4.032$ (significant), whereas the control group $t_o = 82.839$ $t_{table} > 4.032$ (significant).

4. Discussion

The first stage is necessity analysis; the coach suggested that the basic techniques and physical ability of futsal are the weakest ability of Futsal players in intermediate levels. It is also affected by the lack of specification of the given exercises specifically aimed at improving the skills of basic techniques and physical ability levels intermediate futsal players. In addition, the coaches also argued that the poor of learning of Futsal players in intermediate level in basic techniques of futsal, the players are also often difficult to understanding the physical exercises material because it is often constrained by the everyday activities of the players so that this resulted in the physical condition of the players is bad.

The second stage, the product testing that does to gain evaluation, feedback or suggestions to the consummation product exercise model about the basic techniques and physical exercises before doing this test futsal effectiveness of the product. The product test starts with the test by the futsal expert, physical exercise expert and media expert. The result of the expert's evaluation can interpret as that the product of development model of basic technique and physical exercise and it proceed to the group test stage. The test stage with small group involves research subject 12 players from SM futsal academy. The test on a small group is a stage intended to seek feedback and suggestion from futsal athletes in intermediate level in Malang. Based on the evaluation result on the small group, it found that the design of the product development model the basic techniques exercises and physical exercises at the intermediate level of futsal players could be tested on next stage, the test in large groups. The test with large group involves 24 futsal players from Bina Harapan Setia as a research subject. This test head for to know the currency of the eligibility of product more broadly so that the researcher know levels of effectiveness of this model. The result from the test on large group shows that the design of the product of developmental model of basic techniques exercise and physical exercise on the futsal players in an intermediate stage can apply in effectiveness product test stage (test experimental product).

The third stage is the product effectiveness test apply on futsal players from SM Futsal Academy and Bina Harapan Setia (BHS) futsal team with the purpose of knowing the effectiveness of product development to be formulated into final product results and further utilisation of practice for implementation in the future. The mechanism of implementation of the experimental results of this product is done by comparing the two groups, the group experiment and the control group and then takes the result. The method to take the results of experiment product uses the instrument skills test, which in this case is the basic technique skills and physical exercise on the level of intermediate futsal player. Based on a comparison of the results of the counting of the tests in the table above, improved test results for more group experiments showed significant increases compared to the control group. The ultimate test is obtained after the application of exercise program, an exercise of the model has been made on each group. An exercise program in each group is different from the material side exercises conducted. For the Group of experiments using an exercise program in which contains the product model of exercise developed by researchers, whereas the control group using exercise programs conventionally. For the final results, it can be concluded that the product model exercise can improve the results of basic technique

and mastery of the skills of physical ability levels intermediate futsal players in the city of Malang.

5. Conclusion

Based on the results of research that has been done with three stages, flip book maker media products in the form of a model exercise basic techniques and physical exercises futsal shows that product model this exercise can improve the results of basic technique and mastery of the skills of physical ability levels intermediate futsal players in the city of Malang. It is after do the research starts from the first stage (the study of analysis), the second stage (product test) and third stage (test the effectiveness of products or product experiments).

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