

Research Article

A Study on the Development of a Futsal Sports Attack Strategy Exercise Model

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Abstract

The purpose of this study was carried out because of the need to develop a good attack strategy exercise, the implementation of testing the attack strategy model for futsal players, and knowing the effectiveness of the attack strategy model developed on futsal players at the Futsal Academy in Surakarta. The research was conducted using the Research and Development research method which was carried out using 4 stages, namely a preliminary study of the attack strategy development stage, the product trial stage, and the product effectiveness test. The results of the futsal evaluation in this study were qualitative data and quantitative data. The results of small group trials are carried out using 30 subjects. The percentage result of the small group test is 78.23%. The large group trial was carried out using 50 subjects. The percentage result of the large group test was 82.59%. The product effectiveness test uses 4 aspects which are the core of the futsal game, including: player rotation, movement without ball, ball control, teamwork. The results of the product analysis of the futsal attack strategy training model developed by the researcher, it can improve the attack strategy abilities of the futsal players at the Futsal Academy in Surakarta. Based on the comparison between the control group and the experimental group, the results showed that the experimental group had a significant increase compared to the control group, so the training model product could increase the ability and variety of attack strategies of futsal players at the Futsal Academy in Surakarta. The final conclusion of the product is stated to be effective in increasing the ability of the player's attack strategy.

Keywords: Futsal, Research and Development, Attack Strategy

Introduction

Futsal is a sport that is played in groups of 5 people (Hanafi & Christina Yuli Hartati, 2015). This sport aims to score as many goals as possible in the opponent's goal. Futsal has a practical and simple game pattern, the equipment needed is very easy to obtain (Ginting et al., 2019). In addition to futsal, it can be used as a competition and recreation. Futsal sports form a collaboration between players to score as many goals as possible against the opponent's goal, besides that futsal sports form players to always be ready to pass the ball and receive the ball quickly under pressure from opposing players (Novi Affrianty et al., 2013). With a narrow field, futsal games require high ball control techniques, cooperation between players, and team cohesiveness.

According to (Nosa et al., 2019) futsal is a game played by two teams, each team consisting of five players with the aim of getting the ball into the opponent's goal as much as possible. Futsal is well known both in Indonesia and abroad. Futsal is one of the sports that is competed at the international, national and regional levels at various ages. The futsal game has experienced a rapid increase so that many futsal academies have been established in various regions in Indonesia. One of the biggest futsal competitions ever held in Indonesia was the ASEAN Futsal Championship in 2018. The development of futsal was more or less influenced by the development of football and the two sports. In this case, both the way to play and the technique are almost the same. This futsal game is based on the rules made by the FIFA (Federation Internationale de Football Association) with this rule the futsal match runs with fair play (Rinanda & -, 2019).

Sports coaching is carried out with the aim of obtaining scientific achievements that have become the basis for the development process of the athlete coaching process and also the athlete nursery from a program to obtain regional and national achievements, by holding regular tournaments so that the level of athletes gain experience and achievements to continue to the national level (Badri & Tohidin, 2019). A good futsal game must be accompanied by good playing techniques (Mailani, 2016). Futsal players must have the ability to think fast, endurance, and speed (Justinus Lhaksana, 2011). Professional futsal athletes must have good basic techniques (Sudibyo & Faruk, 2013). Training programs that can produce good games and the ability of qualified athletes must be in accordance with the principles of training (Falaahudin et al., 2020). A good training program is a training program that provides and matures players' basic technical abilities (Wimala et al., 2019). The basic futsal technique is the player's initial capital to carry out the strategies that have been prepared. According to (Hermans & Engler, 2011) the basic techniques of playing futsal are divided into six, namely ball reception, dribbling and ball control, passing, shooting, feints and tricks, and goalkeeping techniques.

The ability of the coach to affect the team's performance, intuition and high flight time are the determinants in the preparation of exercises and strategies prepared by the team in a match which is one of the factors for the team's victory (Sugiarto et al., 2020). The ability and condition of the players are the determinants of the team's success (Iwandana et al., 2018). Athletes' abilities can be developed by providing intensive training according to each athlete, while physical condition can be improved by providing physical fitness training that includes speed, agility, and accuracy which can be useful when playing in the field (Hadi, 2019). Therefore we need a forum that can develop the ability of players from all aspects, one of which is the futsal academy. This must be done with a really mature and careful program planning and not only for a very short period of time (Wijayanti & Kushartanti, 2014).

A person who is good and professional in managing attack patterns must pay attention to the composition of players and observe the individual abilities of each player in terms of ball possession to get an effective and efficient strategy (Festiawan, 2020). A good composition of players is very helpful in compiling the training model to be applied. So far, the trainers have put more emphasis on basic technical, physical and mental training so that strategy exercises are not taught (Wibowo et al., 2019). Many attack strategies that are prepared cannot penetrate the opponent's defense, attack strategies are ineffective and the team loses a lot of balls, and opponents can make dangerous counter attacks. The next problem is that futsal attack strategy training is not easy, it requires a futsal coach who understands the most effective methods and training materials to provide futsal attack strategy training and must understand the abilities of students or athletes, so that strategic strategy material can run and be effective. This has an impact on the athlete's lack of understanding of attack strategies. With the problem and the need for coaches to improve the futsal attack strategy, the researchers developed a training model for the academy level futsal attack strategy. The hope is that with new models of futsal attack strategies, players in the academy can understand futsal attack strategies when facing opposing defenses and be able to apply better and more effective futsal attack strategies, then can generate opportunities to score goals in every attack. Therefore, a varied attack strategy training model is needed according to the material to deal with the opponent's defense.

Methods

The purpose of this study was carried out because of the need to develop a good attack strategy exercise, the implementation of testing the attack strategy model for futsal players, and knowing the effectiveness of the attack strategy model developed on futsal players at the Futsal Academy in Surakarta. The research was conducted using the Research and Development research method which was carried out using 4 stages, namely a preliminary study of the attack strategy development stage, the product trial stage, and the product effectiveness test.

Results and Discussion

The development research conducted is divided into 4 procedures which will be described as follows:

1. Preliminary Study

Preliminary studies are the first step to identify problems that will be raised, described, and used as a scope to become problem boundaries. The compiled scope is used as a reference for the steps to be carried out in

the research process in accordance with the existing theoretical basis. The preliminary study stage consists of two activities, namely needs analysis and data analysis of the results of the preliminary study

a. Needs Analysis

Needs analysis is the first step that is a problem and brings up solutions to overcome the problems found. Needs analysis to obtain the initial information needed to become the main concern in research can be done in various ways.

The identification of a problem requires a solution to resolve or find a way out of the problem so that there is no gap between expectations and the reality on the ground. The way of taking initial information to get a needs analysis is by using research instruments including interviews, questionnaires, and observations.

Based on the preliminary studies that have been carried out, it was found that there are several problems that require improvement or development in terms of mastery and ability of attack strategies. This research focuses on the attack strategy skills of futsal athletes at the futsal academy in Surakarta. A preliminary study was conducted with futsal coaches who built a futsal academy in Surakarta using free interviews.

b. Data Analysis Results of Needs Analysis

Based on the results of the collection of needs analysis that has been carried out, there are main problems in the futsal academy in Surakarta, namely the strategic ability of the futsal academy players in Surakarta is less varied, the team attack pattern is fixed with a 4-0 and 2-2 pattern regardless of certain conditions or situations, and the exercise program is not well structured. The steps taken by the researcher are relevant to the needs and problems faced so that they can bring up supporting data regarding the problems found in order to find solutions.

The small group trial of the futsal attack strategy at the Surakarta futsal academy was subject to 30 players. This small group trial was carried out at the Budi Langeng Futsal Field, starting with the opening by the researcher followed by distributing a questionnaire containing 50 questions with explanations of guidelines and writing instruments for filling out questions followed by filling in the subject questionnaire. Quantitative data on the results of small group trials are presented in Table 1:

Table 1. Quantitative Data on Small Group Trial Results

Respondent	Result Score	Maximum Score
Player 1	207	250
Player 2	208	250
Player 3	225	250
Player 4	199	250
Player 5	223	250
Player 6	159	250
Player 7	193	250
Player 8	172	250
Player 9	219	250
Player 10	210	250
Player 11	188	250
Player 12	237	250

Player 13	206	250
Player 14	204	250
Player 15	222	250
Player 16	245	250
Player 17	199	250
Player 18	160	250
Player 19	180	250
Player 20	167	250
Player 21	163	250
Player 22	155	250
Player 23	181	250
Player 24	168	250
Player 25	217	250
Player 26	209	250
Player 27	175	250
Player 28	202	250
Player 29	186	250
Player 30	188	250
Amount	5867	7500

$$P = \frac{5867}{7500} \times 100\% = 78,23\%$$

Based on Table 1, it is known that the data from the small group test with the subject of 30 players, obtained the percentage 78,23%.

2. Product Development

The product development stage consists of two steps, namely the study of theory and preparation of the initial product

a. Theory Study

The theory study stage is used to scientifically examine the material in the form of problem findings that will be developed into products to provide solutions to problems that are used based on existing empirical theories. The theory used is the theory of developing an attack strategy training model that supports the research. Researchers use the theories that underlie the research including:

- 1) Futsal
- 2) Attack strategy
- 3) Training model

The selection of the above theory is based on the logic of empirical thinking. In compiling a theoretical study, the researcher uses deductive reasoning by revealing studies on sports to reviews that can support research. The deductive preparation process is relevant to the procedures and theories that form the basis and can show a logical flow of thinking.

b. Initial Product Preparation

The second step in the preliminary study activity is compiling the initial research product. Based on the preliminary study activities carried out on the supporting theory of the research, followed by determining and designing a product draft in the form of a futsal moaning strategy training model and training program that will be applied in the research. The development model developed for this research consists of several items, including:

- 1) The study of the theory that forms the basis for the preparation of the training model and training program for the futsal attack strategy
- 2) Forms of training and attack strategy patterns for mastery of attack strategies in futsal sports
- 3) Exercise strategy training program consisting of 3 activity materials including warm-up, core, and cool-down.
- 4) Product evaluation in the form of evaluating the ability of the futsal attack strategy

The large group trial of the futsal attack strategy at the futsal academy in Surakarta used 25 Academy Bunga Karya Futsal United players and 25 Kafur Akademi players with a subject of 50 players. This small group trial was carried out at the Budi Langeng Futsal Field, starting with the opening by the researcher followed by distributing a questionnaire containing 50 questions with explanations of guidelines and writing instruments for filling out questions followed by filling in the subject questionnaire. Quantitative data on the results of small group trials are presented in Table 2:

Table 2. Quantitative Data on Large Group Trial Results

Respondent	Result Score	Maximum Score
Player 1	207	250
Player 2	208	250
Player 3	225	250
Player 4	202	250
Player 5	223	250
Player 6	199	250
Player 7	223	250
Player 8	206	250
Player 9	219	250
Player 10	210	250
Player 11	188	250

Player 12	237	250
Player 13	206	250
Player 14	204	250
Player 15	222	250
Player 16	245	250
Player 17	199	250
Player 18	198	250
Player 19	206	250
Player 20	208	250
Player 21	203	250
Player 22	190	250
Player 23	214	250
Player 24	168	250
Player 25	217	250
Player 26	209	250
Player 27	215	250
Player 28	202	250
Player 29	186	250
Player 30	188	250
Player 31	216	250
Player 32	234	250
Player 33	207	250
Player 34	201	250
Player 35	224	250
Player 36	214	250
Player 37	216	250
Player 38	204	250

Player 39	204	250
Player 40	212	250
Player 41	216	250
Player 42	184	250
Player 43	217	250
Player 44	194	250
Player 45	199	250
Player 46	192	250
Player 47	195	250
Player 48	198	250
Player 49	192	250
Player 50	176	250
Amount	10322	12500

$$P = \frac{10322}{12500} \times 100\% = 82,59\%$$

Based on Table 2, it is known that the data from the small group test with the subject of 50 players, obtained the percentage 82,58%.

3. Product Trial

The product trial stage is used to determine the feasibility of the developed product that has been prepared. The product trial stage consists of 3 stages, including:

a. Expert Judgment

The expert judgment stage is carried out in order to obtain advice from products developed by futsal experts consisting of academic experts and expert practitioners. The results of the evaluation in this stage are in the form of quantitative data and qualitative data taken from a mixed questionnaire. The results of the evaluation of the appointed expert practitioners and academic experts are in the form of a percentage of 2%, these results can be interpreted that the product development results can be continued to the next stage by taking into account the suggestions and notes of the experts.

b. Small Group Trial

Small group trials were conducted to find out the opinion of the futsal players on the product of the attack strategy model that was developed. The trial was carried out using 30 players from two futsal academies in Surakarta, namely Legend FC and Bunga Karya FC. The trial was held on August 18 at the Budi Langgeng Futsal Field.

The athlete's opinion was taken using a closed questionnaire instrument, the data obtained was quantitative. The results of the small group test were 78.22%. Based on these results, it can be interpreted that the product in the form of an attack strategy model can be tested on a wider group

c. Large Group Trial

Small group trials were conducted to find out the opinion of the futsal players on the attack strategy model product developed with a wider subject than the small group trial. The trial was carried out using 50 players from two futsal academies in Surakarta, namely Kafur Futsal Academy and Bunga Karya FC. The trial was held on August 23 at the Budi Langgeng Futsal Field.

The athlete's opinion was taken using a closed questionnaire instrument, the data obtained was quantitative. The result of the large group can be interpreted that the product in the form of an attack strategy model is ready to be tested for effectiveness.

d. Product Revision

The product revision was carried out after a large group trial. Product revisions are carried out after receiving responses from the subjects to obtain acceptable development results. Revisions are carried out continuously until the implementation of the product effectiveness test. The results of the revision show that the product of the development of an attack strategy can be tested for effectiveness.

Based on the results of the product analysis of the futsal attack strategy training model developed by the researcher, it can improve the attack strategy abilities of the futsal players at the Futsal Academy in Surakarta.

4. Product Effectiveness Test

The effectiveness test was carried out using a sample of Bektı Barokah futsal academy players to determine the level of effectiveness of the development product to be formulated into a final product and used more widely for future training applications. The experimental design used a treatment experimental design. The effectiveness test was carried out in 2 stages, namely pre-test and post-test. The experimental design used a control group and an experimental group. The control group was given conventional exercise treatment and the experimental group was given treatment for developing attack strategy training products that had been prepared.

The test is carried out after the exercise program has been implemented. Based on the comparison between the control group and the experimental group, the results showed that the experimental group had a significant increase compared to the control group, so the training model product could increase the ability and variety of attack strategies of futsal players at the Futsal Academy in Surakarta.

Conclusion

Based on the results of research and data analysis that has been carried out, conclusions are drawn, including:

1. A small group tryout was held at the Budi Langgeng Futsal Field, with 30 players. Information obtained in the form of players' opinions in the limited test was obtained by means of a questionnaire or closed questionnaire in the form of quantitative. The results obtained were 78.23%, with this research continued at the large trial stage.
2. The large group trial was held at the Budi Langgeng Futsal Field, with 50 players. Information obtained in the form of players' opinions in the limited test was obtained by means of a questionnaire or closed questionnaire in the form of quantitative. The results obtained were 82.59%, with this research continued at the testing phase of product effectiveness.
3. Product Effectiveness Test uses 4 aspects which are the core of the futsal game, including:
 - a. Player Rotation
 - b. Movement Without Ball
 - c. Ball Control
 - d. Teamwork

Based on the results of the product analysis of the futsal attack strategy training model developed by the researcher, it can improve the attack strategy abilities of the futsal players at the Futsal Academy in Surakarta.

4. Based on the comparison between the control group and the experimental group, the results showed that the experimental group had a significant increase compared to the control group, so the training model product could increase the ability and variety of attack strategies of futsal players at the Futsal Academy in Surakarta.

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