

# Development of Circuit Training-Based Futsal Control Exercise Variations

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**Abstract.** The purpose of this study was to develop a variety of exercises, to provide an overview of the variations in controlling futsal ball, to find out the effectiveness of the results of variations in controlling exercises based on circuit training for futsal extracurricular sports in Kisaran State Senior High Schools. In this study using R & D (Borg & Gall). This research method is development, data collection techniques in this study using research instrument questionnaire sheets, data analysis techniques using percentages. The validation results of the expert questionnaire assessment were declared valid and usable with a total percentage of 84%, 88%, and 80% for material experts, percentages of 82.%, 86.7%, and 75% for media experts, percentages of 90%, 85%, and 90% for expert futsal trainers 1, the percentages are 83%, 80%, and 100% for expert trainers 2. The results of questionnaire instrument sheets with percentages of 81.8%, 79.7%, and 83.8%.

**Keywords:** Exercise Variation, Futsal Ball, Futsal Trainer, Futsal Extracurricular Students.

## 1 Introduction

Futsal is a big ball game played by two teams consisting of five players in each team, one of which is the goalkeeper. Futsal is usually played indoors or outdoors (Justinus Lhaksana, 2011: 7). ). Futsal is currently growing rapidly among the community, because this game can be played by men and women, children, adults, and even parents. Sports extracurricular activities are a form of coaching in schools that have the goal of developing interests and student talent. Sports extracurricular itself is a sports activity carried out outside of face-to-face class hours at school or outside school that aims to broaden horizons, abilities, increase and apply the value of knowledge and sports abilities.

## **1.1 Problem Formulation**

Based on the explanation of the problem above, the formulation of the research problem is as follows:

How is the development of circuit training-based variations of ball controlling exercises for state high school students in the city of Kisaran, Asahan Regency?

## **2 Research Method**

### **2.1 Types of Research**

The method used in this research is Research and Development (Research and Development) which means the research method used to produce certain products, and test the effectiveness of these products. According to Sugiyono (2015: 407) explains "research and development methods are methods used to produce certain products, and test the effectiveness of these products so that they function in the wider community". The results of development research are not only the development of an existing product but also to find knowledge or answers to practical problems. So that the method used to produce certain products, and test the effectiveness of these products.

### **2.2 Place and Time of research**

#### **Venue**

This research plan will be carried out in high schools in Kisaran City, Asahan Regency, the number of high schools in Kisaran City consists of 4 schools. However, only 3 schools will be investigated by researchers with the reason that 1 school has not been able to carry out futsal extracurricular activities, due to the lack of facilities from schools.

### **2.3 Subject and Research Objects**

#### **Subject**

In a study, what is meant by the subject is the area of generalization consisting of objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. According to Arikunto (2016: 26) "defines research subjects as objects, things or people where the data for the research variables are attached, and which is at issue".

Arikunto, (2009: 97) explains that the sampling technique used by researchers is when researchers have certain considerations in sampling. Based on this, the researcher uses the analogy as the object of assessment which is used as an empirical reference for this research, namely experts who will validate the development of circuit training-based variations of controlling exercises.

## **2.4 Procedures and Research Design**

The program developed was ball control technique for futsal extracurricular players at State High School in Kisaran City. Development research in general can be grouped into three procedures, namely development models, development procedures, and trials. In developing training variations, researchers adapt based on the Borg and Gall model on the grounds that the development design is used to develop a product.

## **2.5 Research Approach and Method**

Approach is a method or way of conducting research as well as: experiments or non-experiments. The method approach used in this study uses development research.

## **2.6 Data Collection Instruments and Techniques**

### **Expert Questionnaire**

The research data collection was used by a questionnaire to obtain data on the feasibility validity of variations in circuit training-based controlling exercises which can be seen from the validation of material experts, futsal experts/certified coaches, and assessments by players.

## **2.7 Data Analysis Techniques**

Based on the data processing procedure, an appropriate data processing technique can be created so that the objectives to be achieved from this research can be answered. The instruments used to assess the products that have been developed are as follows; a) expert team validation questionnaire sheet. This instrument is in the form of a questionnaire that is used to obtain validation data from validators. The results obtained will be used as reference material in revising the variations of the exercises that will be developed and analyzing the validity that has been compiled, b) the assessment questionnaire sheet from the trainer on the variations of the exercises developed, c) the players' assessment questionnaire sheets obtained from a series of field trials on the presentation of variations developed exercises.

# **3 Result and Discussion**

## **3.1 Description of Research Results**

This research was conducted in 4 public senior high schools in Kisaran City, Asahan Regency, North Sumatra Province, consisting of Kisaran 1 Public High School, Kisaran 2 State Senior High School, and Kisaran 4 State Senior High School. There were also high schools which were not included in the study due to lack of facilities, namely SMA Negeri 3 Kisaran. This research was conducted on February 7 – March 7 2023. The research method is research and development (research and development) from Borg and Gall.

In the observation stage the researcher conducted it at SMA Negeri 2 Kisaran and could conclude that there were 24x out of control of the ball on team A and 27x out of control on the extracurricular futsal team B at SMA N 2 Kisaran, then at the interview stage the researcher could conclude that the extracurricular futsal coach did not yet have a trainer's license and the

lack of variety of exercises that make players feel bored when practicing, then researchers design products or prepare material for variations in controlling futsal based on circuit training that will be applied to futsal extracurricular players at Kisaran State High School. After preparing the product or exercise variation to be given to futsal players, the researcher revised the previous product to material experts, media experts, nationally licensed futsal trainers, and supporting lecturers so that variations in controlling exercises are valid to be given to futsal extracurricular players at SMA Negeri 2 Kisaran.

### **3.2 Research Discussion**

Based on the research results, it can be explained in the discussion where the results of the percentage of material experts from 3 indicators are 84% effectiveness, 88% usefulness, 80% form. There is also a questionnaire percentage from media experts namely effectiveness 82.5%, usability 86.7%, presence 75%. The results of the futsal trainers consisting of 2 trainers are coach 1 effectiveness 90%, usability 85%, form 90%, trainer 2 is effectiveness 83%, usability 80%, form 100%. Furthermore, the percentage of players consisting of 3 indicators is SMA Negeri 1 Kisaran with a percentage of 83.8%, SMA Negeri 2 Kisaran with 81.8%, and SMA Negeri 4 Kisaran with 79.7%.

From the research above, the research results through a questionnaire addressed to Kisaran 1 Public High School, researchers can conclude 1) it is very important that variations in controlling are given to players to improve the quality of controlling players, 2) the implementation of each post carried out by players is also smooth, 3) variations in controlling exercises are also worthy of being used as additional training material for players when practicing at home, 4) but what is lacking from the results of research on players is that there are too many posts so that players become tired. Then the results of the research through a questionnaire aimed at SMA Negeri 2 Kisaran players can conclude 1) the implementation procedures given to students are understandable, 2) variations of controlling exercises are also interesting for players to do at home, 3) variations of controlling futsal exercises are very helpful for improving the quality of controlling players, 4) the number of posts also makes players tired of carrying out exercises. The results of research on SMA Negeri 4 Kisaran players can be concluded by researchers 1) variations in controlling exercises also really help them to improve the quality of controlling futsal, 2) variations in controlling futsal do not make their reference to be carried out at home, 3) variations in controlling exercises do not make players enthusiastic in carrying out exercises, 4) too many posts so that it makes players tired.

## **4 Conclusion**

From the results of the analysis and discussion above, it can be concluded that using a variety of control exercises in circuit training-based futsal games in Kisaran State High Schools in general can be categorized as good. Viewed from the aspect of training variations, media experts, material experts and futsal trainers. The creation of a product in the form of a pocket book containing variations of circuit training-based futsal controlling exercises.

#### **4.1 Research Implications**

Experts say a consequence or direct result of the findings of a scientific research. Another meaning is a conclusion or the final result of a research finding. Through an in-depth study, the implications of this research are:

Can be used by futsal coaches and players for the process of running training activities as a variation of circuit training-based futsal controlling exercises.

#### **4.2 Suggestion**

Based on the results and conclusions of the research above, the researcher proposes suggestions and improvements, namely:

1. Students are expected to be able to improve quality control through various variations of the exercises that have been given.
2. To the coaches, there are many types of variations of exercises that can be given to students.
3. The school is expected to be able to help and provide support to students and coaches to improve student achievement in the field of futsal.
4. To the management of the Kota Kisaran futsal branch, I hope they can provide education about the training program to support student achievement in Kisaran City

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