

# Multi Station Rebounder Tool Development as a Guide For Training Instrument Based On Independent Football

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## MULTI STATION REBOUNDER TOOL DEVELOPMENT AS A GUIDE FOR TRAINING INSTRUMENT BASED ON INDEPENDENT FOOTBALL

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### Abstract

**Objectives:** The objective of this study is development of multi station rebounder tool as a guide for training instrument based on independent football.

**Methods:** In this study, researcher used the qualitative descriptive with the secondary data for the basic principle think with the forum group discussion with the expert, stake holder and fencing athlete.

**Results:** The results of this research is a prototype of multi station rebounder tool as a guide for training instrument based on independent football.

**Conclusions:** Has been produce the prototype of multi station rebounder tool as a guide for training instrument based on independent football, 2. The prototype of training independent rebounder instrument have to guiding especially for football, and 3. The training process can do it more effective and efficient than before.

**Keywords:** Development, Football, Multi Station, Rebounder

### INTRODUCTION

The development and change of time demands that humans be more productive in any case. Science and Technology is one form that coincides with its development. Knowledge and Technology has entered the field of sports that aims to facilitate and improve sports achievements in the world, as in Law No. 3 of 2005 Article 20 paragraph 1 which reads "Sports achievement is intended as an effort to improve the ability and potential of sportsmen in order to improve dignity and dignity of the nation".

The rapid advance of Science and Technology (IPTEK) cannot be denied that new innovations are emerging as a solution of the problem as per the needs of the times. Advances in Science Technology or Science and Technology have helped a lot of human activities in various activities, especially for sports that help in training and games. IPTEK support in the field of sports is very influential on the athlete's achievement. UU No. 3 of 2005 Article 20 paragraph 3 explains that "Achievement implemented through the process of development and development in a planned, tiered and sustainable with the support of science and technology sports. From the phrase states that science and technology have a positive influence for the progress of national sports achievement. Likewise that is expressed by (Sri Haryono dk 2013: 1) Achievement is influenced by two factors, namely: (1) Internal factors of athletes, including physical ability, intelligence, psychomotor and affective, (2) external factors from athletes, namely factors supporting between others: coaches, parental support, availability of infrastructure, training programs, research results, neighborhood work or school, community, close friends and others

Use of science and technology in the field of sports is not small. The usefulness of science and technology itself is very diverse and complex to help trainers in designing the method of exercise and even help athletes in training, games and exercises independently. Researchers as academics in the field of sports, especially in coaching realize the importance of application of science and technology in the process of training and athlete development, because one of the benefits of sports technology products is to facilitate in sharing methods and variations of exercise

Football includes a type of game that consists of a combination of elements of motion that takes a long time to master the basic techniques well. The basic technique of football consists of techniques of kicking the ball, holding the ball, dribbling the ball, heading the ball, deception, snatching the ball, throwing in, and goalkeeping techniques (Luxbacher, 1992: 42).

According to Herwai (2004: 21-24) the basic motion of the game of soccer includes: (1) motion or technique without the ball. During a soccer game, the player's attack must be able to run with short or long strides to change the running speed. Other movements such as walking, jumping, jumping, rolling, turning, turning, twisting and stopping abruptly. (2) motion or technique with the ball including: the ability of motion or technique with the ball include: (a) Introduction of ball with body parts (ball feeling), (b) passing ball, (c) kicking the ball into the goal (shooting) (d) dribbling, (e) receiving the ball and the ball (receiving and controlling the ball), (f) heading the ball (heading), (g) faking (feinting), (h) taking the ball (sliding), (i) throw-in, (j) goal keeping. Of some things or previous basic motion elements, judging by the importance of motion or basic technique, the player and coach must pay special attention to every exercise especially if new stage of early age coaching.

Attention is the exercise. It means to improve and direct the ability of motion or basic technique to perfect movement. The motion in question is motion that can help the player achieve a good game efficiently and effectively. According to Sukadiyanto (2011: 13) The purpose of the exercise in general is to help coaches, teachers to exercise exercise and have the ability to conceptual and skills in helping to reveal the potential of sportsmen to reach the peak of achievement.

The basic technique is a technique that belongs to the foundation (base) is the most basic training menu aimed at developing basic skills required by all players. Building a solid foundation is a must. Just as people build houses, the stronger the foundations, the greater the shape and variety of the building. So the importance of technical training and basic motion on football players need special attention in running the process of coaching and training. So practitioners and experts in the field of football play an active role in its development, as academics can make a breakthrough by making technology in an effort to improve the technique and basic motion of players.

The observations that researchers have done in most soccer training institutions such as the Football School (SSB) in DIY with the objective of observation are to know "is there a tool that helps in the process of training basic soccer techniques that can be used with multipurpose functions?" The results obtained in general shows that some tools that support the process of training techniques and basic soccer include: cone, marker, stake, goal and ball. Some variations with the tool are like to train agility, speed, accuracy and other strength, while for the technique of passing, ball control, shooting, heading, catching the ball (goalkeeper) is still lacking the means or tools. Though the technique component is very important in effective and efficient game. Researchers also observed exercises on some SSBs in DIY regarding the training process, most SSBs apply training schedules approximately three times a week with the duration of each exercise two to three hours. The researchers found that the problem of ineffective exercise in some SSBs where the number of pupils with coaches is unbalanced in ratios has an impact on the lack of maximum attention to the development of each student.

Based on this background, the researcher is interested to develop the tool "Multi Station Rebounder Tool as a Guide for Instrument of Basic Training of Football Based on Independence".

## METHOD

The research used in this research is research development (and development). Called research-based development (research-based development). According Sugiyono (2012: 407), development research method is a research method used to produce a particular product, and review the effectiveness of the product. In other words, to produce a particular product required needs analysis and to test the effectiveness of the product. (Add a reference method R n D).

## RESULTS

### Product Specifications

The products produced through this development research have the following specifications:

1. Multifunctional Rebounder tool for basic soccer technique practice Net-sized rebound: 150 cm x 150 cm, goal: 150 cm x 200 cm <sup>2</sup>
2. Framework made of iron and aluminum with color combination of greatness UNY, FIK and PKO is a combination of blue, yellow and red.
3. The rebounder web is made of nylon strings on the back of the top, bottom rear, left and right sides and the front that can be used as a medium for variation of target or goal.



Figure 1. Multi Station Rebounder Tool as a Guide for Instrument of Basic Training of Football Based on Independence

## DISCUSSION

### A. Descriptive Theory

#### 1. The nature of the Coaching Media

##### a) Definition of the Nature of the Coaching Media

The coach is a professional whose job is to help the sportsman and team improve the performance of the sport. Since the training is a profession, the trainer is expected to provide its services in accordance with the standards / professional sizes that exist. One professional standard specifies that the service should be provided in accordance with the latest development of scientific knowledge of the field. So, it is important for the trainer to be an active consumer research produced by sports scientists.

To optimize the appearance, ensure safety and improve the welfare of the athlete. The trainers should regularly adjust to the latest developments and change their training practices. This kind of change can occur only when the coach (Dwijowinoto, 1993: 5):

1. Have an understanding of the established principles of each field of knowledge



2. Regularly seeking new knowledge in sports science. Trainers need not be scientists in the true sense, but to become professionals, coaches must be an active consumer of scientific information and apply them.

Coaching is often regarded as one of the most interesting and satisfying professions of all professions. Many trainers are greatly admired by the community and respected by their athletes. Many trainers are truly skilled in human movement and skilled throughout their career as trusted master teachers. Many coaches truly love their profession and will not exchange it with others. Many trainers regularly produce team and champion sportsmen. Indeed the coaching can be a very pleasant and satisfying work (Dwijowinoto, 1993: 1).

But some people who pursue a coaching career get it as unpleasant or satisfying. Often, these people start with a picture of ideal coaching, which will ultimately only be discouraged and disappointed. Prospective trainers must know that success does not always await everyone who plunges into the world of coaching. Like any other profession, coaching requires a passionate coach (Dwijowinoto, 1993: 1):

1. Have the basic pleasure and the required properties
2. Have skills and knowledge that increase the likelihood of success.

#### **b) Explosion of Knowledge in the Science of Coaching**

There are times when a trainer is needed is a passion for working with sportsmen and basic sports knowledge. First, successful peers must understand the principles of science that can explain and show the appearance of the sportsman.

The knowledge boom in the science of coaching has reached an amazing profession. In the United States, many colleges and universities support research aimed at researching human movements. Many new research magazines are being published to accommodate the growing number of studies generated by various sports sciences. As sport grows increasingly important and becomes a real part of American society, scientists of various disciplines use their talents to study athletes and their performances (Dwijowinoto, 1993: 2).

#### **c) Scientific Approach to Coaching**

Most established coaches argue that the successful training is part art and some other science. This implies that training demands creativity and interpretation of individuals and situations. The authors agree with this opinion. Truly the successful coach must develop a coaching opinion with its own cirri and through experience must develop a "sixth sense" that leads them into making decisions. However, the artistic and creative aspect of coaching must be based on a solid science base. There is no level of creativity that will result in success / success if the scientific basis of training practice is less than perfect (Dwijowinoto, 1993: 3).

#### **2. Basic Technical Techniques of Soccer Game**

The basic techniques of soccer games include baiting the ball, kicking the ball and heading the ball. According Sucipto, et al. (2000: 17), the basic techniques of football games are as follows:

##### **a. Kick**

Aim to feed, shoot at goal and sweep to thwart the opponent's attack. Some kind of kick, ie kicking by using inner legs, outer legs, back and lower back.

##### **b. Stop**

Aim to control the ball. Some kind of that is to stop the ball with the inner leg, stop the ball with thighs, and stop the ball with thighs and stop the ball with the chest.

##### **c. Dribbling**

Aiming to approach the target distance to pass through the opponent, inhibit the game. Some of the kind is dribble with the outer legs, inner legs and with the back foot.

##### **d. Head**

Aim to feed, score goals and break the opponent's attack. Some kinds of that is headed the ball by standing and jumping.

##### **e. Grabs**

Aim to seize the ball from the opponent. Grab the ball done while standing and gliding.

##### **f. Throw in**

Can be done with prefix or no prefix

g. Keep the goalkeeper

It is the last defense in football. The guarding of the goal covers capturing the ball, throwing the ball, and kicking the ball.

While the division of basic techniques according to Soekamti (1984: 17) consists of two kinds:

a. Non-sphere motion techniques that include

- 1) Jumping and jumping.
- 2) Relying on no balls or fake movement
- 3) Run and change direction

b. Technique of movement with ball covering

- 1) Kick the ball.
- 2) Receive the ball.
- 3) Cropped the ball
- 4) Fooling motion with the ball
- 5) Seize the ball
- 6) Dribble
- 7) Grabbing the ball

In practice, the two basic techniques are always happening and done in the game. Basic techniques without balls and basic techniques with balls must be able to be combined in game situations as needed.

According Komarudin (2005: 38), the outline of soccer techniques consists of:

a. Basic Controls

1) Ball Control

Is the ability of players when receiving the ball, then try to master it until the moment the player will pass the ball to his friend. The ball can be done with all the body parts that are allowed in the legs, thigh, chest and head.

2) Dribbling Ball

One of the exciting spectacles in football is the ability of a player who has mastered the ball technique well and the dribbling is through his enemy (dribbling). The goal of dribbling is through the opponent, directing the ball into empty space, escaping from the opponent's escort, opening up space for comrades, and creating chances to shoot into the opposing goal. According to Danny Mielke (2007: 1), "Dribbling is a basic skill in football because all players must be able to control the ball while moving, standing, or preparing to do an operand or a shot." Dribbling can be done using the player's inner legs, the outer legs and the back foot.

b. Kicking the ball (Passing)

According to Danny Mielke (2007: 19), "Passing is the art of moving the ball momentum from one player to another player". Passing is best to use the foot, but other body parts can also be used. There are several passing that can be done among others as follows:

1) Short Operant (Short Passing)

A good short operant is an operand along the ground or down and the ball is steady. Short runs can be done well when the attitude of both feet is in the correct position.

2) Long Pass Operands (Long Passing)

Done when the player kicks the ball up to the target, the target kick usually has a relatively long distance compared to the short operand. The target of the kick is a teammate or direct placement on goal to score. Usually this kick is done when a foul on the midfield, goal kick, corner kick, as well as feedback from the side of the side of the field that often allows the striker to score goals.

3) Kicking the Ball Into The Goal (Shooting)

The occurrence of goals is the most anticipated moment by football fans in the world. Over 70% of the goals come from shooting or shooting. Kicking the ball into the goal with the feet can be done with all the legs, but technically so that the ball can be kicked properly can be done with the back foot or tortoise feet, the inside legs, outer legs, inner back and legs the outside part.

c. Heading the Ball (Heading)

One of the basic techniques that can be used in all positions and corners of the field is the ball, which is generally done with the head. This technique is done to pass and direct the ball to a friend, drove the ball in the defense area, controlled the ball, and made a header to score. Danny Mielke (2007: 53), heading can be a very powerful weapon when attacking and is a skillful defense.

d. Seize the Ball (Sliding Tackle-shielding)

Seize the ball in the game of football as long as the player who will take the ball is really about the ball that is controlled by the opposing player. The ball's goal is to hold back the opponent's players towards the defender's goal, postpone fast games, thwart attacks, drive the ball off the field and to counter-attack. In seizing the ball can be done by standing, floating or while dropping the body either from the front, side or back.

According to Danny Mielke (2007: 39) said that inward throwing can be a powerful weapon in the plan of a team attack. A very powerful inner throw can push the ball from the sidelines to the center of the field, down the sides of the field, or to the front of the goal

e. Throw In

When passing a field line by a team A player, team B player must throw in, so the game can be resumed. So the goal of throwing the ball is to revive the game after the ball out of the game field over the side line.

f. Goalkeeper

According Sucipto, et al (2000: 38) "goalkeeper is the last defense in the game of football". A soccer player to play football well and correctly, should be able to master the basic techniques of football. Some of the basic techniques with soccer ball that a football player needs to possess or control of is to kick the ball, receive the ball, dribble, shoot the ball, fake gestures, snatch the ball, throw in, and goalkeeping techniques. A player who has the basic technique the good ones tend to play good football too and will be neatly organized in teamwork.

## 2. M-station Rebounder

M-Stasion is a Danish product made of stainless steel and lightweight aluminum, Surface strings produce maximum rebound of the ball. M-Stasion is designed as an individual football practice as well as a group that uses it as controlling the ball, heading the ball and helping the kipper in practice (Bola otomotif, 2013). Many football clubs use this tool to train young and senior players one of them English club Arsenal.

Many overseas companies are producing these tools, with so many uses, more and more types of rebound tools are in production, for example one of the tools are:

Spot Elite

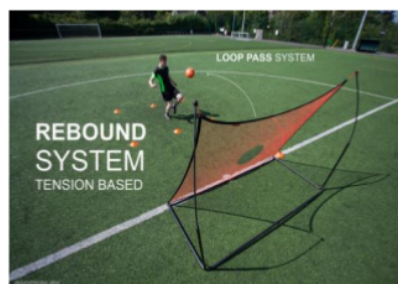


Figure 2: Spot Elite

(Source: [www.quickplaysport.com/football-rebounders](http://www.quickplaysport.com/football-rebounders))

Spot Elite rebounder takes it to the next level. The system is now freestanding with unnecessary sandbags or weights. On 8'x6' the coach has a big target to work with a soft pass system that will loop the ball more than ever. frames made with professional standards with heavy-duty coated steels and solid fiberglass core uprights. Spot Elite packs down and sets it up in two minutes so the only institutional rebounder is truly portable.

1

#### FEATURES:

- The SPOT Elite is the perfect rebounder for club or home use.
- Durable design that allows the SPOT Elite to be assembled in just 2 minutes; in or out in any weather without the need for sandbags or pegs.
- Designed and produced for high class, institutional level for use by club / academy or home use.
- The SPOT Elite is light and comes with all the pre-embedded poles and carrying bags making a fully portable rebounder.
- The SPOT Elite uses innovation and design to offer a large piece of soccer training equipment for individuals and clubs to work on a variety of skills and techniques to transfer to in-game situations.

#### DETAILS:

- Skip Dimension: L 244cm H 180cm D 110cm (8 'x 6' x 3.7 ').
- Weight: 13.5 kg.
- Packaged Size: Only 27.5cm x 13.5cm x 122cm.

#### Product Description of Multi Station Rebounder Tool as a Guide for Instrument of Basic Training of Football Based on Independence

Coaching Media was developed in the form of Rebounder tool or ball reflector. The initial product generated is called "Rebounder Tool for basic soccer technique practice" to provide an understanding of the exercises in improving the basic soccer techniques. Media product of coaching tools for football basic technique is developed with the concept of introducing ways to improve quality physically correct to the sports actors. Thus the development of ladder tools for football basic exercises is expected to be used as a source of training that is interesting and liked by children so it can be an alternative in introducing the way of improving the correct physical quality with ladder tools.

The rebounder tool product for the basic soccer technique exercises that has been developed has a unique shape as per usability, practical and can be adjusted according to reflection desire.

The development of this rebounder tool consists of a framework that can be connected in to and so that it can be easily carried anywhere, there is a hinge in the corner so it can make it easier to adjust the reflection of the ball.

#### CONCLUSION

The results of research development of Multi Station Rebounder Tool Development as a Guide for Training Instrument Based on Independent Football tools as a media training technique football is could have to use as a coaching medium to provide a method of training basic soccer training against the perpetrators of the sport

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