

# The Effect of Running Practice Method on Football Shooting Skills of Sport Science Students

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## ABSTRACT

This study aims to determine the effect of straight running practice and zigzag running practice with drill methods on football shooting skills and determine the difference in the impact between the two practices in improving football shooting skills in Sport Science Students of Makassar State University. This research is an experimental study using a "two groups pretest-posttest design" with 12 session treatments. The sample in this study was 30 students of Sport Science Students of Makassar State University. They were determined using a purposive sampling technique. Ball shooting skills are measured using the Bobby Charlton instrument proposed by Danny Mielke. The t-test is used in hypothesis testing. The results showed an effect of straight running practice with the drill method on football shooting skills. Furthermore, there was an effect of zigzag running practice with the drill method on football shooting skills. In comparing the two practices, the straight running score is slightly higher than the zigzag running. Still, there is no significant difference between straight running and zigzag running with the drill method in improving football shooting skills.

**Keywords:** *Straight running, zigzag running, football shooting skill*

## 1. INTRODUCTION

In general, stakeholder analysis is the stage of collecting qualitative data and information and is processed systematically to mapping and consider related elements in the program [1]. There have been no study results that provide a complete picture of the position of stakeholder positions in Bombana. However, it can be predicted there will be donor agencies that will implement mercury pollution reduction program in the future. This research aims to develop a systematic analysis to map the potential and position of involvement of several stakeholders in the Bombana area. Specific targets to be achieved from this study are the birth map of stakeholder positions based on knowledge, interests, positions, alliances, and interests related to program implementation. Football is one of the most popular games for young people in Indonesia. Aside from being a physical exercise and achievement, this game also has a social function [2]. Games that are done in groups will develop the social potential of the players. However, a good game can only be done by people who master ball playing techniques. One technique in a soccer match is shooting. Shooting skills appear to put the ball into the opponent's goal using the foot [3], [4]. The technique of

kicking the ball into the opponent's goal gets serious attention in every practice because it dramatically affects the player's performance. Improving shooting skills or kicking the ball into the goal requires proper training methods and following the abilities of the subjects being trained. There are several ways in training technique shooting skills. Drills practice or shooting repeated was done to establish a permanent shooting motion automation. Based on the Sports Science Faculty of Universitas Negeri Makassar. In the initial observations, the researchers found that the ball shooting skills of students were very low. Although the ball shooting skills are one of the keys to being able to score goals or add scores. This fact was a trigger for researchers to find the right training methods in improving shooting skills.

The drill method is the process of perfecting repeated shooting practice of the ball [5]. The repeating practice aims to improve the ability or technical skills of shooting (athletes) in athletes to form a permanent shooting motion automation [6]. Furthermore, many references outline two kinds of practice in the drill method. The first kind is straight-running practice and the secondly is zigzag running practice. The original method is a practice that combines speed and power to give the effect of movement before kicking a ball in soccer. This practice

aims to concentrate more on determining the right direction for shooting on goal because this practice presents the actual form of the game. Once the various forms of shooting practice, it all depends on a coach to modify practice. The Zig-Zag Running Practice in the form of shooting practice against the goal after zigzag running. This practice combines agility and power in kicking or shooting. The purpose of zigzag running practices is to master running skills, avoiding various obstacles, both people and objects around them. Zigzag running practices involve leg muscles to can complete all the burdens given during practice.

**2. RESEARCH METHOD**

This type of research is an experiment that will reveal the effects of straight running practices and zigzag running practices. The practices implemented by Drill Method on ball shooting skills at the Sports Science Faculty in Makassar State University. The research design is Two Groups Pretest-Posttest Design, where there are tests before being given a treatment (pre-test) and tests after

being given a treatment (post-test). They are 30 students as research objects.

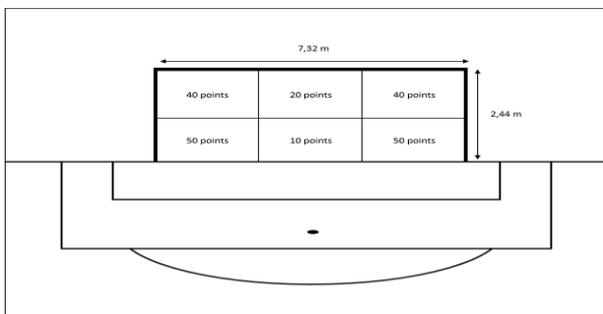
Data collection methods are test and measurement techniques. Researchers used the Bobby Charlton Shooting instrument to capture objective data. [7]. This method consists of four steps viz. The first step is a pre-test to measure the shooting skill of students before treatment.

Subjects were allowed to shoot as much four times on goal, and the data is taken. Secondly is the division of subjects into two groups. Consideration of the balance of the player's ability to be the basis of researchers to achieve objective data. Thirdly, the provision of treatment for 12 meetings divided into six sessions. Each session has a different reference. (table 1). Finally, at the end of each session, the researchers took the post-test data for the two training methods.

The Bobby Charlton Shooting Test is by dividing the goal field into six boxes. Each box has a different score. (Fig.1). Data analysis used two methods, namely descriptive techniques and T-test using SPSS.

**Table 1.** Player Activities on Two Training Methods

| Treatment | Player Activity  |   |
|-----------|--|---|
|           | Straight Treatment   | Zig Zag Treatment   |
| Session A | Passing - run straight-one touchback passing                                       | Passing - run zig-zag-one touchback passing                                       |
| Session B | run straight - receive one-touch shooting passing.                                 | Run zig zag- receive one-touch shooting passing.                                  |
| Session C | Run straight from the right corner - receive one-touch shooting passing            | Run zig zag from the right corner - receive one-touch shooting passing            |
| Session D | Passing - run straight to right / left - receive one-touch shooting passing        | Passing - run zigzag to the right / left - receive one-touch shooting passing     |
| Session E | Run straight forward in the reverse direction - receive one-touch shooting passing | Run zig zag forward in the reverse direction - receive one-touch shooting passing |
| Session G | Passing - run straight - One-touch back shooting passing                           | Passing - run zigzag - One-touch back shooting passing                            |



**Figure 1** Scoring Area

**3. RESULT AND DISCUSSION**

**3.1. Analysis of the effectiveness of the straight run method**

The data of the ball shooting skills test in the straight run treatment method shown in table 2. It shows that there was an increase in scores from pre-test to post-test for all training sessions. The data indicates that session A has the highest post-test score compared to 5 other sessions.

The t-test analysis results showed that the significance value for the difference in pre-test and post-test scores was 0,000. It means that there was a significant difference between pre-test scores and post-test scores. So it can be concluded that the straight run

method is effective in improving student football shooting skills.

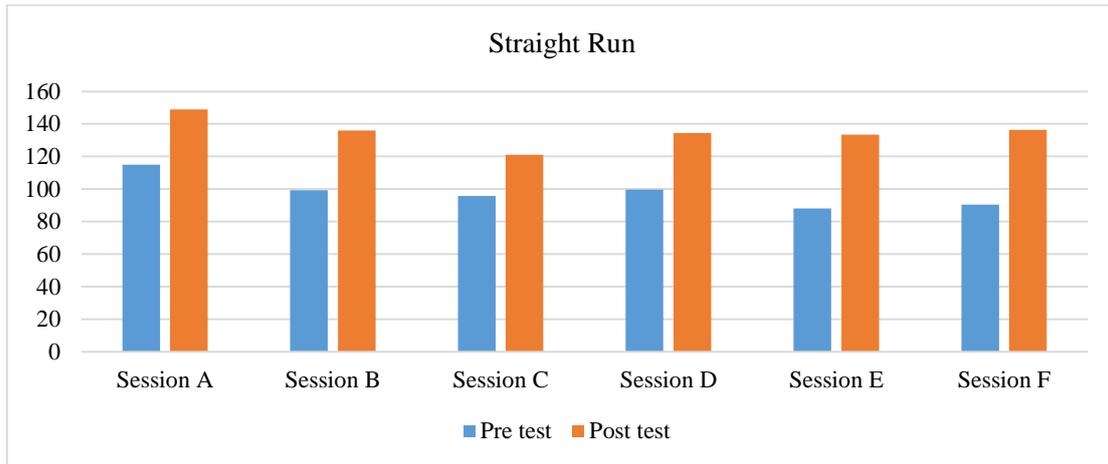
**3.2. Analysis of the effectiveness of the Zig Zag Method**

Data on the zigzag run treatment method can be seen in table 5. It shows that there is an increase in scores from pre-test to post-test for all training sessions.

As for the most considerable difference in pre-test and post-test scores seen in sessions E and F.

From the analysis results in Table 2, there are differences in the average scores of football shooting skills. The data shows the post-test mean score is greater than the pre-test score.

Table 3 below is the result of the t-test conducted to see an overview of the results of applying the straight run method.



**Figure 2** Straight Run Method Test Results

**Table 2.** Straight Run Method Descriptive Statistics

| Player Activity    |    |         |         |         |                |
|--------------------|----|---------|---------|---------|----------------|
|                    | N  | Minimum | Maximum | Mean    | Std. Deviation |
| PreStraight        | 30 | 86.667  | 108.333 | 97.999  | 5.223          |
| Poststraight       | 30 | 116.667 | 156.667 | 135.000 | 11.613         |
| Valid N (listwise) | 30 |         |         |         |                |

**Table 3.** Straight Run Method T-Test Result

|        | Mean                | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |        | t      | df      | sig |
|--------|---------------------|----------------|-----------------|---|--------|--------|---------|-----|
|        |                     |                |                 | Lower                                     | Upper  |        |         |     |
| Pair 1 | Pre – Post straight | -37.00         | 11.861          | 2.165                                     | -41.42 | -32.57 | -17.086 | 29  |

Data shows that session B has the highest post-test score compared to 5 other sessions. As for the most considerable difference in pre-test and post-test scores, there were sessions D and E.

From the analysis results in Table 4, there are differences in the average scores of football shooting skills. The data shows the post-test mean score is greater than the pre-test score.

The t-test analysis results showed that the significance value for the difference in pre-test and post-

test scores was 0,000. It means that there was a significant difference between pre-test scores and post-test scores. So it can be concluded that the zigzag run method is effective in improving student football shooting skills.

**3.3. Comparative analysis of the effectiveness of the straight run and Zig Zag run method**

Table 8 shows the post-test comparison results between the two experimental groups, which aims to see which running method is the most effective.

Based on the results of the two methods, straight running practices are more effective. The two methods influencing players' shooting skills, even though there is no statistically significant difference in effect. This can occur because the two types of practice are equally good and almost the same effect on football shooting skills, but both practices have their respective advantages. For example, running one-touch straight-shooting more

combines speed and power to give effect to the movement before kicking the ball in soccer. The aim of the t-test results obtained a significance value of 0.257 or greater than 0.05. It can be concluded that there is no significant difference from the post-test scores of the two experimental groups. This means that there is no training method that is superior to others in improving student football shooting skills.

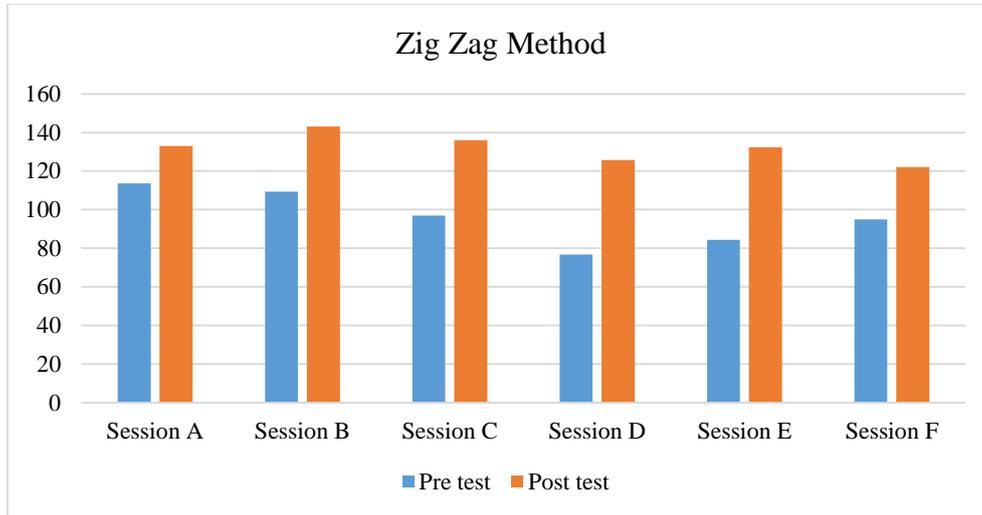


Figure 3 Zigzag Run Method Test Results

Table 4. Zigzag Run Method Descriptive Statistics

| Descriptive Statistics |    |         |         |           |                |
|------------------------|----|---------|---------|-----------|----------------|
|                        | N  | Minimum | Maximum | Mean      | Std. Deviation |
| Prezigzag              | 30 | 81.667  | 116.667 | 96.00000  | 8.334485       |
| Postzigzag             | 30 | 105.000 | 155.000 | 131.99997 | 11.179481      |
| Valid N (listwise)     | 30 |         |         |           |                |

Table 5. Zigzag Run Method T-Test Result

|        | Mean            | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |         | t       | df      | sig |
|--------|-----------------|----------------|-----------------|---|---------|---------|---------|-----|
|        |                 |                |                 | Lower                                     | Upper   |         |         |     |
| Pair 1 | Pre-Post zigzag | -35.999        | 15.977          | 2.917                                     | -41.966 | -30.033 | -12.341 | 29  |

Table 6. The T-Test for Difference Result of Practices

|        | Mean                       | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |        | t     | df    | sig |
|--------|----------------------------|----------------|-----------------|---|--------|-------|-------|-----|
|        |                            |                |                 | Lower                                     | Upper  |       |       |     |
| Pair 1 | Poststraight – Post zigzag | 3.000          | 14.212          | 2.595                                     | -2.307 | 8.307 | 1.156 | 29  |

this practice is for the player to concentrate on determining the right direction for shooting on goal. In contrast, one-touch zigzag running, combining agility and power in kicking or shooting. This action can be relied upon to avoid opposing players, especially when the player is in the penalty area. This means that the

zigzag run requires more focus so that the concentration of emotion is more divided. Therefore, both types of practice both affect both the player's shooting skills and have their respective advantages that are appropriate to be applied in certain conditions.

A repetitive and systematic training process on the dribbling method is the main key to the success of both types of training [3], [8]. This repetition causes an increase in student performance in shooting skills. However, both types of exercises require students' physical strength in practice. For students with low physical strength, the results of low skill improvement are also low.

#### **4. CONCLUSION**

Based on the results of the research that has been done, it can be concluded that: The running practices and the drill method positively influence students' shooting skills. The two kinds of practices increased student skills in football shooting skills. In comparing the two practices, the straight running score is slightly higher than the zigzag running, but there is no significant difference between the effect of straight running and zigzag running with the drill method in improving football shooting skills.

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