

The Effect of Shuttle-Run and Zig-Zag Exercises on Ball Dribbling Ability in Students of Public Junior High School 27 Palembang

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Abstract: The purpose of this study was to determine the effect of the Shuttle-Run and Zig-Zag exercises on ball dribbling skills in SMPN 27 Palembang. This research was conducted on students of SMP Negeri 27 Palembang. The sample of this research was students of class VII.2 and VII.3 with a total of 58 people. The sampling technique uses total sampling. Data collection was carried out by carrying out a dribbling test in a soccer game. The research method uses the experimental method, while the analytical method used is the t test with the SPSS for Windows version 23.00 program. The conclusions of this study are: (1) there is an effect of shuttle-run training on ball dribbling skills in students of SMP Negeri 27 Palembang; (2) there is an effect of zig-zag training on the ball dribbling ability of students at SMP Negeri 27 Palembang.

Keywords: Dribbling, Shuttle-Run Exercise, Soccer, Zig-Zag

A. Introduction

The development of the game of football today has reached a very encouraging level. Because in addition, the game can be done by all levels of society and can also be done by involving many people. The game of football, as we all know, is very popular in cities and rural areas, we can see that almost every year there are championships at the regional, national and international levels (Daryanto, 2021).

In Indonesia, the game of soccer is being socialized with a smaller field size and can be played by elementary school students, which is better known as mini soccer. This is intended so that the game of soccer can be recognized by students earlier, through elementary school students in a more flexible form, namely mini soccer games. Mini football is a soccer game played by two teams, each consisting of seven people. According to Bafadal (2011), the aim of the mini soccer game is to improve and develop soccer coaching at the elementary school level. In addition to the number of mini soccer players consisting of seven main players, each team is also allowed to have three backup players. Mini soccer games are the same as soccer games in general, only the field size is smaller and the number of players is less (Bafadal, 2011).

Basically, mini soccer game is an attempt to control the ball and to win it back when being controlled by the opponent. Therefore, to be able to play mini soccer, you must also master the basic techniques of good soccer. The basic techniques of soccer include kicking the ball (shooting), stopping or controlling the ball, and dribbling (Muhajirs, 2017).

The basic techniques in soccer include kicking the ball (shooting), stopping or controlling the ball, and dribbling (Rohim, 2018). Therefore, techniques in playing soccer must also be considered, considering that soccer is a global sport today. In mini soccer games there is a dribbling technique which is the basis for soccer games and cannot be abandoned. The basic technique of dribbling a ball is a technique that must be learned (Bengal, 2020).

Therefore, in mastering the technique of playing soccer, especially mini soccer, the dribbling technique is the initial technique in soccer games so it needs to be considered and also trained in order to be able to carry the ball well. Soccer lessons at SMPN 27 Palembang, have been carried out well, but the learning was carried out more on understanding theoretical concepts and never applying training. However, as the teaching and learning process progresses, there are still many identified problems that are often found in the field, where there are many deficiencies, one of which is that students are less skilled at dribbling. This can be seen from the students' ability to dribble at a distance of 10 meters in a zig-zag manner, which is given obstacles that still take up to 2 to 3 minutes. The lack of skill of students in carrying out basic dribbling techniques will have an impact on the low achievement of soccer games. Of the many problems found, the researcher is interested in providing his own in improving dribbling techniques. Given the importance of this dribbling technique, adequate body agility training is needed, one of which is by giving Shuttle-Run and Zig-Zag exercises. Shuttle Run is an exercise by changing the movement of the body from a straight direction which is done as fast as possible with back and forth running techniques. Shuttle Run is also a form of exercise that can be used to improve leg agility (Marjana, & Made, 2014).

The form of training for soccer games can be done by running in a zig-zag manner, namely the children line up behind the start line, the distance between the starting line and the stakes is 15 meters to 30 meters and alternately dribbling the ball from the starting point then zig-zagging through the stakes. back to the starting point (Gilang, 2020). Therefore, zig-zag running is a running technique in which students run through obstacles whose paths form a zig-zag line so that the provision of this zig-zag running training program will be beneficial for increasing body agility, and will also provide benefits for agility in dribbling. Thus, the provision of zig-zag training is expected to increase ball control and speed of dribbling in a mini soccer game in accordance with the training program that will be carried out.

B. Methods

The method used in this study is the pre-experimental design experimental method. The research design used in this study was a pre-test and post-test one group design. In this design, observations were made 2 times, namely before the experiment (O1) and after the experiment (O2) (Sugiyono, 2018). The data collection technique used in this study was the soccer dribbling test technique (Widiastuti, 2021).

The population of this study were all fifth-grade students at SMPN 27 Palembang. The research sample was taken by means of total sampling, namely all students of class VII, totaling 58 people and consisting of two classes, namely class VII.2 and class VII.3. This study consisted of two independent variables, namely shuttle-run training (X1), zig-zag training (X2), while the dependent variable was ball dribbling ability (Y). The data analysis technique used is inferential data analysis technique. The use of descriptive data analysis techniques to obtain an overview of the characteristics of the distribution of values for each variable studied. In this study, the authors used data analysis techniques with the help of the t-test SPSS version 23.00 for windows.

C. Results and Discussion

Effect of Shuttle-Run Training on Ball Dribbling Ability

Based on the results of Udam's research, he stated that there was an effect of training using the Shuttle-Run training method on the dribbling abilities of Immanuel Ball School (SSB) students aged 13-15 years. Exercise with the Zig-Zag method is more effective in improving ball dribbling skills in Imanuel football school (SSB) students (Udam, M.2017).

Alfajri, et al (2021) also stated that the effect of shuttle run training after six weeks with a frequency of 3 times a week had a significant effect on the agility of dribbling in soccer games. After testing the hypothesis with the t-test statistic, with a significance level of 0.05, the t-count is 25.1 while the t-table is 1.70, then $t\text{-count} > t\text{-table}$, so it can be concluded that the Shuttle Run exercise can improve results the agility of dribbling the ball in extracurricular activities at AZ-ZAWIYAH Tanjung Batu Vocational School (Alfajri, et al., 2021).

The results of Arwandi and Ardianda (2018) research stated that this research was conducted for 4 weeks (18 meetings), in 1 week the exercises were carried out 4 times. The results of the study stated that the mean pretest (28.42) & gt; average posttest (27.36) or increased (1.06 seconds), meaning that the application of shuttle run training can improve dribbling skills. In addition, from the results of t-count (3.25) > t table (2.20), meaning that the application of zig-zag run exercises and

shuttle run exercises can improve dribbling skills, where zig-zag run exercises show better results in improving dribbling skills (Arwandi & Ardianda, 2018).

One form of exercise to increase one's agility or agility is the Shuttle Run exercise or another name, namely running back and forth. The method of the Shuttle Run exercise is running back and forth with the fastest possible tempo starting from one point to another by covering a certain distance. As for an element of motion contained in the Shuttle Run exercise, namely running by changing the direction and position of the body, speed, balance.

The purpose of the Shuttle Run exercise is to practice changing body movements from a straight direction. Students and athletes in this exercise are asked to run back and forth as fast as possible from one point to another. However, when it reaches a specified point, the athlete must try as quickly as possible to turn around to return to run towards another point (Sajoto, 2015).

Based on the results of previous research and the theory above which states that the shuttle-run exercise affects ball dribbling abilities. Thus, the author's assumption of this research is that shuttle- run exercises have an influence on ball dribbling skills in students of SMPN 27 Palembang

The Effect of Zig-Zag on Ball Dribbling Ability

Research by Novsir, et al., (2020) states that there is an effect of zig-zag running training using weights on improving dribbling skills in soccer games for extracurricular students. The pretest result was 44.03 and the posttest average result was 46.3 with a difference of 2.27 and the t count result was 1.738 > from t table 1.699. Based on statistical tests with $\alpha = 5\%$ (0.05) that H_0 is rejected or H_a systematically accepts that the Zig-Zig Running exercise affects Dribbling skills.

Research by Utomo & Syafii (2022) states that the results of the analysis using the paired sample to test zig-zag running exercises with the ball obtained a p value (0.000) < 0.05. These results indicate that there is a significant effect in the zig zag running exercise with the ball on the readiness to shed the Kediri Triple's club players. From these results, it can be surmised that zig zag running exercises with the ball affect the increase in player agility (Utomo & Syafii, 2022).

The results of Arwandi & Ardianda (2018) stated that this research was conducted for 4 weeks (18 meetings), in 1 week the exercises were carried out 4 times. The results of this study obtained results (1) mean pretest (28.46) > mean posttest (27.10) or increased (1.36 seconds), meaning that the application of zig-zag running exercises can improve dribbling skills, (2) mean pretest (28.42) > mean posttest (27.36) or increased (1.06 seconds), meaning that the application of shuttle run

exercises can improve dribbling skills, (3) $t\text{-count} (3.25) > t\text{ table} (2.20)$, meaning that the application of zig-zag run and shuttle run exercises can improve dribbling skills, where zig-zag run exercises show better results in improving dribbling abilities (Udam, 2017).

Forms of training in the game of soccer can be done in various ways. One form of agility training can be done in a Zig-Zag run (Yudiana, et al., 2018). One form of this exercise is the Zig-Zag running exercise. Furthermore, zig-zag running practice is a useful exercise in soccer games. How to do Zig-Zag exercises can be through other players (Soekatamsi, 2019).

Based on the results of previous research and the theory above which states that zig-zag training affects the ability to dribble the ball. Thus, the author's assumption of this study is that zig-zag training has an influence on ball dribbling skills in SMPN 27 Palembang.

D. Conclusion

Based on the discussion that has been stated above, it can be concluded that: (1) there is an effect of shuttle-run training on ball dribbling abilities in students of SMPN 27 Palembang; (2) there is an effect of zig-zag training on the ball dribbling ability of students at SMPN 27 Palembang.

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