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## ZIG-ZAG RUN IN IMPROVING BASKETBALL DRIBBLING SKILLS

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### Abstract

The purpose of this research is to improve one of the dribbling technique skills in the sport of basketball. Dribbling is an important ability in achieving maximum results to be able to trick opponents. The type of research used using experiments. The population in this study was all atlet men's activity unit of Padang State University students who actively participated in basketball practice. The sampling technique uses total sampling. Thus the sample in this study amounted to 56 men's athletes. The data is analyzed using the SPSS V26 Program. The results of the independent samples test on Sig.(2-tailed) earned  $0.000 < 0.05$ . So  $H_0$  is rejected and  $H_a$  is accepted. It is concluded that there is a significant difference from dribbling skills that apply the zig-zag run method more effectively than conventional methods.

**Keywords:** Zig-Zag Run; Dribbling; Basketball

### INTRODUCTION.

A sport that is much loved by most students and students in every college, namely Basketball. This game is widely seen from the frequent basketball tournaments between schools and between universities at the regional level to the national and even international levels. It is worth noting that the game of basketball in a college is further improved in a better direction.

The use of basic techniques in the game of Basketball is needed by a player/athlete. Players can carry out game tactics easily because the player has confidence in himself (mentally) quite high.

Oriented towards a wide variety of basic techniques used in the game of basketball, dribbling technique is a very important technique of a game. Players must be proficient in dribble the ball in various ways, because dribbling the ball is the most basic skill in a game of basketball. This can be seen from the ball created into the opponent's ring through a quick counterattack is the result of a good dribbling technique of a player in attacking without being usurpable by the opponent. Conversely, for defenders the ability to dribble the ball is needed in

guarding the defense of the opponent's attack and as soon as possible must see the position of the friend to make the pass. Therefore, the players both forwards, midfielders and defenders must be proficient in dribbling in various ways to be able to score as many points as possible.

Skills in Dribbling is the most basic skill and must be possessed by a basketball player, to make it happen it needs a solution in the form of giving exercises that can improve these skills.

Zigzagging run exercise is one form of exercise that can increase a person's agility in moving and this greatly affects one's skills in dribbling and running and winding directions.

(Riyanto, 2019) The game of basketball is a team game. A strong team is a team that can play tight. In this case, players are required to cooperate well and compactly. Further more Basketball is not only a team game, but also an individual game. In this kind of game, every player needs to improve his abilities and become an outstanding but selfless player (Hastuti, 2008). So, it is clear that this basketball game is a game that requires maximum ability both individually and as a team with tough conditions in order to achieve the desired achievement. Sports achievement itself is a benchmark for the success of a sport developed or cultivated (Wibowo & Hidayatullah, 2017).

### Dribbling Skills

According to (Taufik & Gaos, 2019) Dribbling refers to the ability to dribble from one place to another while being able to control the ball, useful for avoiding obstacles and regulating the rhythm of the game. Dribbling refers to the ability to move the ball by hand as quickly as possible to achieve the goal, i.e. counterattack, pass the opponent, provoke the opponent, adjust the rhythm of the game, and score points effectively without losing balance (Fatahillah, 2018). It is clear that dribbling is needed in basketball to be able to produce a good game in order to score as many points as possible efficiently.

Dribble can be obtained from continuous directional training. Without this, the dribbling skills of basketball players would not be very good. One exercise that can be used is Zig-Zag Run, which looks to improve the dribbling of player Bola Basket.

### Zig-zag Run

Zig-zag is one form of agility exercises performed with curved movements whose purpose is to train the ability to change direction quickly and precisely without losing balance (Ardianda & Arwandi, 2018). How to do this exercise by the way the athlete rotates quickly between several points 2-3 times, the distance between points is about 2 meters, the goal is to train the body to change movement in the direction of bending (Tofikin, 2020). In this case, the purpose of zigzag running is divided into two parts, namely zigzag running exercises that measure agility by running triangles the size of triangle lines, star-shaped running exercises with a predetermined star line, and zigzag running exercises that change direction. Movements or body parts, such as eight running exercises, run through obstacles (Malasari, 2019)

Start the implementation mode, which is to start the race with a strong heel, and the players stand behind the starting line. When the "Yes" signal is given, the player immediately runs and immediately matches the arrows on the field graph until they cross the finish line. As below figure shown:

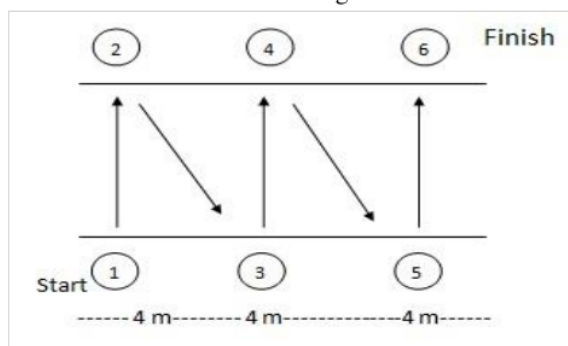


Figure 1. Zig-Zag Run



## METHOD

The method in this study is an experiment. According to (James, Aini, 2018) Field Experiments is an experimental study conducted in the field based on the place of research. As for the steps of implementation to do a pre-test, then the treatment is zig-zag running for 16 meetings. Then, followed by a post-test dribbling skills. The respondents of this study amounted to 56 athletes of the men's Basketball Student Activity Unit Padang State University who actively participated in basketball training. Sampling techniques using saturated sampling based on all population members that have been determined by researchers (Barlian, 2016), as described in the table below:

**Table 1.** Research Sample

No	Category	Respondents	Information
1	Man	28 People	Experimental Class
2		28 People	Control Class
Total		56 People	

## Data Analysis Techniques

Data decryption and hypothesis testing in this study is to use descriptive and inferential statistics with the formula of the t test sample bound. Before the t test analysis, the analysis requirements test is first carried out, i.e. data normality and homogeneity and the t test can only be used to test the mean difference of two samples taken from a normal population and a homogeneous group. After the normality test is carried out, the analysis of the t test is carried out, with the following formula:

### Description:

t : T test price sought

x1: Mean sample to 1

x2: Mean sample to 2

D: Difference between sample scores 1 and 2

N : Couple

$\sum D$ : The sum of all the differences

$\sum D^2$ : The sum of all the differences that are squaring

$$t_{hitung} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{n}}{n(n-1)}}}$$

**Table 2.** Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Experimental Pretest	28	15,33	20,34	17,8286	1,45539
Experimental Posttest	28	11,01	17,50	14,3696	1,52010
Control Pretest	28	15,02	21,75	17,9154	1,85574
Control Posttest	28	14,03	20,41	16,9893	1,79293
Valid N (listwise)	28				

The table above describes the initial test and the final test of the experimental group and the control group have different data results when viewed from the lowest and highest values then the average and standard deviations also have different results according to the numbers seen.

**Table 3.** Tests of Normality

	Class	Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistics	Df	Sig.	Statistics	Df	Sig.
Dribbling	Ziz Zag Run	,165	28	,048	,941	28	,117
Basketball	Conventional	,172	28	,034	,950	28	,202

a. Lilliefors Significance Correction

The explanation of the table above shows the results of the normality test where based on Shapiro-Wilk obtained its significance for dribbling basketball with ziz-zag run with a result of Sig.  $0.117 > 0.05$  and dribbling with conventional methods with a result of Sig.  $0.202 > 0.05$ . So in conclusion both methods are in the category of normal distribution.

**Table 4.** Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
Dribbling	Based on Mean	,833	1	54	,365
Basketball	Based on Median	,860	1	54	,358
	Based on Median and with adjusted df	,860	1	53,489	,358
	Based on trimmed mean	,828	1	54	,367

The table above shows the homogeneity test with the results seen from based on mean with Sig.  $0.365 > 0.05$ . It can be concluded that basketball dribbling data is the same distribution (Homogeneous).



**Table 5. Independent Samples Test**

	Levene's Test for Equality of Variances	t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Dribbling Basketball	Equal variances assumed	,833	,365	-5,897	54	,000	-2,61964	,44422
	Equal variances not assumed			-5,897	52,592	,000	-2,61964	,44422

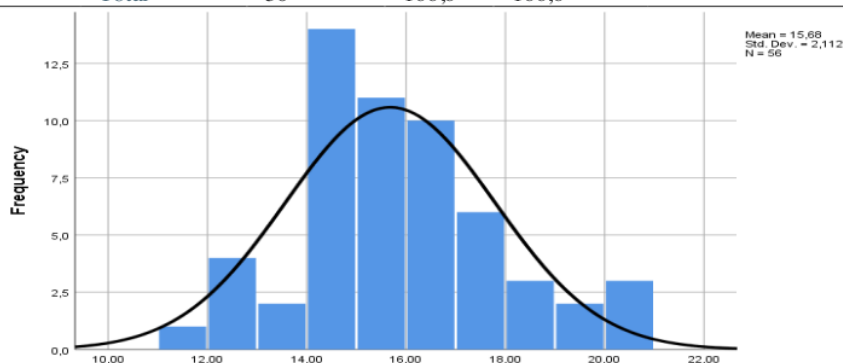
Hypothesis test of the experimental group and the control group on basketball dribbling skills, obtained the results of independent samples test on Sig. 2-tailed) by  $0.000 < 0.05$ . So  $H_0$  is rejected and  $H_a$  is accepted. Then it can be concluded that there is a significant difference from the ability of dribbling skills that apply the zig-zag run method with those that apply conventional methods.

**Table 6. Group Statistics**

	Class	N	Mean	Std. Deviation	Std. Error Mean
Dribbling Basketball	Ziz Zag Run	28	14,3696	1,52010	,28727
	Conventional	28	16,9893	1,79293	,33883

**Table 7. Class**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ziz Zag Run	28	50,0	50,0	50,0
	Conventional	28	50,0	50,0	100,0
	Total	56	100,0	100,0	



**Figure 2. Basketball Dribbling Diagram**



## DISCUSSION

The results of this study, illustrate that zig-zag running is one type of exercise that aims to train agility. This exercise is done with fast movements so that it can improve the work of the heart and blood vessels while training the muscles in the legs, this run is also very beneficial to improve performance in sports that require agility and leg strength (Maretno & Arisman, 2020). To improve this zig-zag exercise requires a variety of variations. This is so that athletes can train happily and not experience saturation (Novsir et al., 2020).

This exercise after treatment turned out to give significant results to basketball dribbling skills. Because this sport is a sport that is played in teams and requires special techniques when playing it (Sitepu, 2018). Dribbling should only be done with one hand or it can also be done by alternating right and left hands. The goal is to bring the ball forward and avoid the grab of the opposing player. Dribbling is usually done with the position of the body between the ball and the opponent. So when the ball will be seized by the opponent, the body can be used to resist the fight (Taufik et al., 2021). looking at the results that have been obtained from this study, it is appropriate that this exercise is given to athletes to improve performance in the field when playing basketball, this exercise can also be supported by technology to see the kinesthetic movement of the zig-zag run so that the desired achievement can be achieved (Okilanda et al., 2021).

## CONCLUSION

The conclusion of the results of the description in the discussion section can be explained as follows:

1. The provision of zig-zag running exercises has an influence on dribbling skills in the sport of basketball in UNP Student Activity Unit.
2. Based on the results of statistical data analysis obtained the results of dribbling skills using zigzag running more effectively applied than conventional methods.



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