



# INFLUENCE PRACTICE MAWASHI GERI WITH LOAD TO SPEED KICK MAWASHI GERI ON ATHLETE KUMITE KARATE JUNIOR PUTERA

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## Abstract

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This research originated from the observations of researchers in the field who saw Atlet-athlete Kumite Karate Junior Putera Dojo Tako Rokan Hulu had a weakness in the speed of *mawashi geri* kicks. It can be seen Many athletes who go on the attack and make a lamba t kick. The purpose of the research to be achieved in this study is to find out pengaruh latihan mawashi geri with a load (X) against the speed of the *mawashi geri* kick (Y). The method used in this study is an experimental method, and the research used in this study is "One-Group Pretest-Posttest Design". The population in this study was junior karate kumite athletes putera Dojo Tako Rokan Hulu as many as 10 Junior Putera Athletes. The design of this study uses pre-test and post-test of *mawashi geri* kick speed. Data analysis and research hypothesis testing using an independent t-test with a significant level ( $\alpha$ ) of 0.05 with a confidence level of 0.95%. Based on the analysis of data with the results: Pre-test An average of 17.1 in Post-test 19.9 increased by 2.8 or 3% with results ( $t_{count} 7.203 > t_{table} 1.833$ ), then  $H_0$  rejected  $H_a$  accepted. Based on the data analysis and discussion that has been presented, it can be argued that Mawashi Geri Training with Load affects Mawashi Geri's Kick Speed in Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu.

**Keywords:** Speed Mawashi Geri, Mawashi Geri with Weight

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## INTRODUCTION

In today's modern century, the role of sports is very important for people's lives, sports are a physical activity carried out with the intention of maintaining a healthy body. Sports activities in their development can be carried out as entertaining, fun activities or also carried out with the aim of improving achievements, through coaching and developing sportsmen in a planned, tiered, and sustainable manner through competitions to achieve an achievement with the support of sports science and technology.

Seeing the role of sports also contributes to the development of the quality of Human Resources (HR) in Indonesia, the Government participates in the development



and development of national sports, which can ensure equal access to sports, increase achievements, and manage sports that are able to face the challenges and demands of changing national life and globally require a national sports system.

This is in accordance with Law Number 3 of 2005 Article 1 Paragraph 13 concerning achievement sports which states that: "Achievement sports are sports that foster and develop sportsmen in a planned, tiered, and sustainable manner through competitions to achieve achievements with the support of sports science and technology".

Based on the explanation above, among the goals of achievement sports is to improve the field of achievement in sports, one of which is karate. Basically, the achievements of the sport of karate are supported by good physical conditions, one of which is to increase the speed of the *mawashi geri* kick technique. So it is necessary to carry out training coaching in order to form qualified and outstanding athletes in the field of karate sports.

To improve achievements, serious athlete coaching is needed and all aspects are always considered, one of the most important is physical condition, because it greatly affects the achievement of optimal achievements, Then it can be said that to improve the physical condition all these components must be developed, and these components include: Endurance, Strength, Speed, Agility, Explosiveness, Accuracy, Flexibility, Balance, Coordination, Reaction.

Karate is a martial arts sport originating from Japan, Karate itself entered Indonesia in 1966 by Indonesian students studying in Japan. Karate itself consists of two kanji, the first is "Kara" which means "empty hand" and the second is "Te" which means "hand", where the two kanji means "Empty Hand" (Simanjuntak in Baramuli, 2020: 2).

In karate matches, athletes are required to make fast movements in the shortest possible time, using various kinds of attacks to get as much value as possible in order to win a match. One of them that karateka wears is a kick. Kicks have a special feature in a karate match. The kicking technique launched by the incoming karateka and right on target gets a greater value than the right punch technique on the target that produces value. Chung-Yu Chen, Chenfu (2008) explains that kicking skills are related to distance and target suitability.

According to Ningtyas (2019:32) *Mawashi geri* is a side kick, where the kicking throw forms a curved path like an arc from the outside to the inside, with the target in front or side. *Mawashi geri* kicks use insteps to hit targets such as face, neck, back. The way to do a *mawashi geri* kick is to first raise the knee (from the outer side) to its height then swung from the outside circling inwards quickly and hard, with the recognition of the back. *Mawashi geri* with leg weights is an exercise to strengthen leg muscles, besides that it is also effective in training kick speed in martial arts, weight of 0.5 kg and below at the age of 11 years and below sons and daughters, 0.5 - 1 kg at the age of 11 - 16 years sons and daughters, 1 - 2 kg at the age of 17 years and above sons and daughters (Simbolon, 2016:32).

Sinurat (2018:50) argues that speed is a person's ability to perform similar movements in succession to cover a certain distance with the shortest amount of time. And speed can also be defined as the ability to travel distances quickly or the

ability to move for a short time. According to Bomba in Harsono (2016: 122) argues that there are 6 factors that affect speed, namely:

- a) *Heredity* and natural talent. However, Fix (1985) says that although people are *inherent* in slowness, if they are lat ih with "*maximal effectiveness*", they will be faster than people "*who has greater potential but has not yet mobilized it*".
- b) Reaction time.
- c) The ability to overcome *external resistance* such as equipment, environment (water, snow, wind, and so on), and opponents.
- d) Techniques, such as the movement of arms, legs, bodyhood at the time of running, and so on.
- e) Concentration and vigor.
- f) Elasticity of muscles, especially the muscles in the ankles, hips and knees.

Exercise is the process of perfecting exercise through a scientific approach, especially the principles of regular and planned training so as to enhance the ability and readiness of athletes which is carried out repeatedly Manurizal (2019: 24). It can be concluded that exercise is an activity that is carried out repeatedly and systematically. The activity referred to here is in the form of giving physical, technical, tactical, and mental burdens that are regular, directed, gradual and repetitive in time. Repeatedly, the intention is to make the movements that were originally difficult to do become easier, automatic and their implementation so as to save energy.

Based on the description above, considering the speed of *Mawashi Geri* kicks, this study is directed to find out the effect of *Mawashi Geri* training with a load of 1kg on the speed of *Mawashi Geri* kicks. In addition, it is also to provide evidence whether there is an Effect of *Mawashi Geri* Training with a Load of 1kg on *Mawashi Geri's* Kick Speed.

## **METHODS**

This research is an experimental study that aims to determine the Effect of *Mawashi Geri* Training with a Load of 1kg on *Mawashi Geri's* Kick Speed. This study used 2 variables, consisting of 1 free variable and 1 bound variable. The free variable is *Mawashi Geri* Training with Weights, while the bound variable is *Mawashi Geri's* Kick Speed.

Sugiyono (2018: 80) said that population is a generalized area consisting of: objects or subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then drawn conclusions. So the population is not only people, but also other objects and objects of nature. The population is also not just the number that exists in the object / subject studied, but includes all the characteristics / traits possessed by that subject or object. The population in this study was 16 men's *junior* karate kumite athletes *Dojo Tako Rokan Hulu*.

The sample selection technique in this study is *Purposive Sampling* where part of the population that is the sample is selected specifically based on the purpose of the study (Sundayana, 2018: 28). This research was aimed at: *Kohai dojo Tako Rokan Hulu*, male, aged 11-16 years (*junior dojo* age category), active in training and

mastering the technique of mawashi geri kicking. The total population is 16 people consisting of 10 males and 6 females. Based on the purpose of this study in selecting samples from the 16 populations, the researcher appointed 10 athletes as samples that fit the criteria above.

The research instrument uses test and measurement methods to measure the speed of the mawashi geri kick using the Test instrument. According to Simbolon (2016: 144) To collect the data needed in this study used the test instrument "Speed of karate kicks"

1. The form of the test is the measurement of the speed of a karate kick
2. The goal is to find out the speed of the karate athlete's kick (for the *maegeri* and *mawashi geri* kick techniques).
3. Equipment: *Sandsack* (expected 50 kg) / target (*hand box*), *Meter*, *Stopwach*.
4. Officer: *Sandsack/target height gauge*, *Timekeeper*, *Sandsack guard*
5. Execution : Athletes get ready to stand behind the *sandsack/target* dengan one foot pedestal is behind the line as far as 50 cm (women) 60 cm (men).

At the time of aba-aba 'yes' the athlete made a kick with his right foot and returned to the starting position by touching the floor behind the line, then continued the right kick as quickly as possible for 10 seconds. Likewise with the left foot. The execution can be done 3 times and taken the best time with a *sandsack / target* height of 75 cm (women) and 100 cm (men). Scoring : score based on the number of kicks of the athlete.

**Table 1.** Kick Speed Test Norms

Category	Powers	Prince
That's very nice	>23	>25
Good	19-22	20-24
Enough	14-18	15-19
Less	8-13	10-14
Less so	<7	<9

Source: (Simbolon, 2016: 144).

The data collection technique in this study is by test methods, namely *pretest* and *posttest*. In this study, the sample first measured the speed of the mawashi geri *pretest* kick, with a score based on the number of athlete kicks according to Simbolon (2016: 114) as follows:

**Table 2.** Kick Speed Assessment Form

Kick Technique	Mawashi Geri Kanan	Mawashi Geri Kiri
Test 1		
Test 2		

Test 3		
Best Techniques		

Source: (Simbolon, 2016: 144).

## RESULTS & DISCUSSION

### Results

#### a. *Mawashi Geri Kick Speed Pre-test Results on Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu*

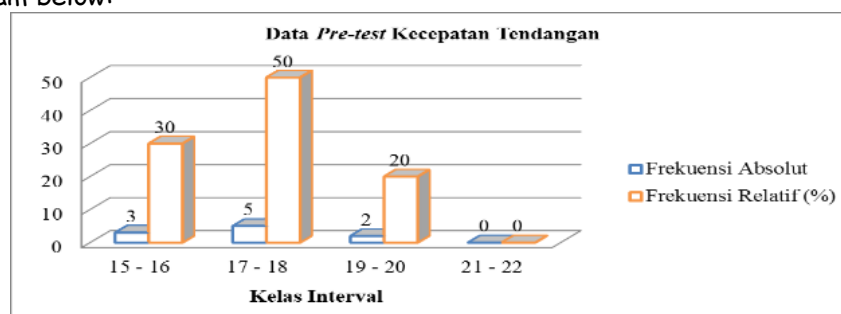
To find out the Speed of *Mawashi Geri Kicks* in Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu, a measurement test is used with the *Mawashi Geri Kick Speed* test, before being given the *Mawashi Geri Training* treatment with Load where the number of samples is 10 ( $n = 10$ ) a maximum score of 19 kicks is obtained at least 15 Average kick times 17.1. Standard Deviation 1.4 and Median 17. The description of the results of the study is presented in the frequency distribution with the formula of finding many classes =  $1 + 3.3 \text{ Log } N$ , range = maximum-minimum value and class length with the formula = range/many classes. (Sugiyono in Setiawan, 2012).

**Table 3.** Frequency Distribution of *Mawashi Geri Kick Speed Pre-test Results*

No	Interval Class	Absolute Frequency	Relative Frequency (%)
1	15 - 16	3	30
2	17 - 18	5	50
3	19 - 20	2	20
4	21 - 22	0	0
<b>Sum</b>		10	100

Source: Data Processing Results January 2021

Based on the frequency distribution data of the *Mawashi Geri Kick Speed Pre-test* results in table 4.1 out of 10 people, it turned out that 3 samples (30%) had Kick Speed results with a value range of 15-16. Kemudian as many as 5 sample people (50%) have a Kick Speed with a value range of 17-18. Furthermore, 2 samples (20%) had a Kick Speed with a value range of 19-20. Kemudian none of the samples (0%) had a Kick Speed with a value range of 21-22. For more details can be seen in the histogram below:



**Figure 1.** Histogram Data *Pre-test* Kick Speed

**1. Post-test Results of *Mawashi Geri Kick Speed* on Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu**

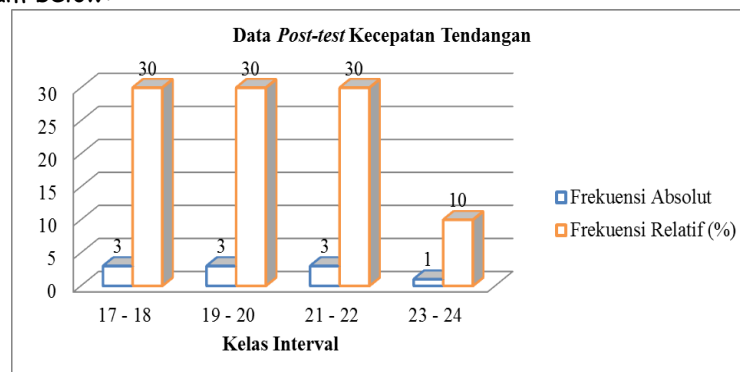
Based on the results of the *Mawashi Geri Kick Speed* test at the Junior Karate Kumite Athlete Putera Dojo Tako Rokan Hulu, a measurement test was used with the *Mawashi Geri Kick Speed* test, before being given the *Mawashi Geri Training* treatment with Load where the number of samples was 10 (n=10) obtained a Maximum score of 19 scores of At least 15 Average 17.1. Standard Deviation 1.4 and Median 17. The description of the results of the study is presented in the frequency distribution with the formula of finding many classes =  $1 + 3.3 \text{ Log } N$ , range = maximum-minimum value and class length with the formula = range/many classes. (Sugiyono in Setiawan, 2012).

**Table 4.** Frequency Distribution of Kick Speed Post-test Results Data *Mawashi Geri*

No	Interval Class	Absolute Frequency	Relative Frequency (%)
1	17 - 18	3	30
2	19 - 20	3	30
3	21 - 22	3	30
4	23 - 24	1	10
Sum		10	100

Source: Data Processing Results January 2021.

Based on the frequency distribution data of the *Mawashi Geri Kick Speed Pre-test* results in table 4.1 out of 10 people, it turned out that 3 samples (30%) had Kick Speed results with a value range of 17-18. Kemudian as many as 3 sample people (30%) have a Kick Speed with a value range of 19-20. Furthermore, 3 samples (30%) had a Kick Speed with a value range of 21-22. Then as many as 1 sample person (10%) had a Kick Speed with a value range of 23-24. For more details can be seen in the histogram below:



**Figure 2.** Histogram Data Post-test Speed Kick

**2. Presentation of Analysis Requirements**

**A. Test Lilliefors**

Testing analysis requirements is intended to test the initial assumptions that are used as a basis for using variance analysis techniques. The assumption in question is that the data analyzed and obtained from samples representing normally distributed populations and the groups compared are from homogeneous populations. For this reason, the test used is the normality test. The normality test was carried out with the lilliefors test with a significant level of 0.05 with the results of the requirement test as a berikut: The normality test was carried out with the *Lilliefors* test, the results of the normality test on the research variables, namely *Mawashi Geri Kick Training with a Load (X) Kick Speed (Y)* can be seen in table 4.3 as follows:

**Table 5.** Normality Test Data Kick Speed Test Results

Variable	L <sub>observations</sub>	L <sub>table</sub>	Information
<i>Kick Speed Pre-test Results</i>	0,1279	0,2580	Normal
<i>Post-test Results of Kick Speed</i>	0,1389	0,2580	Normal

Source: January 2021 Data Processing Results.

From table 4.3 below, it can be seen that the data from the *Pre-test* results of the speed of *mawashi geri* kicks after calculation resulted in an<sub>observation</sub> L of 0.1279 and L<sub>table</sub> of **0.2580**. This means that the observation L is smaller than the table L. It can be concluded that the distribution of data from the *Mawashi Geri Kick Speed Pre-Test* results is normally distributed. For *testing post-test* data, the results of *Mawashi Geri Kick Speed* were produced an<sub>observation</sub> L of 0.1389 smaller than the table L of **0.2580**. So it can be concluded that the dissemination of data on the results of the *Mawashi Geri Post-test Kick Speed* is normally distributed.

#### B. Variance Homogeneity Test

This study used the *Homogeneity Variance* test by testing *Pre-test* and *Post-test* data. The *Homogeneity Test* aims to test whether the data obtained is homogeneous or not the *Homogeneity Variance* test with the F Test obtained F<sub>count</sub> smaller than the F<sub>table</sub> thus the two *Variances* are homogeneous. A summary of the *Homogeneity Variance* test can be presented in table 4.4.

**Table 6.** Summary of Variance Homogeneity Test Analysis

Data variables	Varian	N	F <sub>count</sub>	F <sub>table</sub>	Ket
Post-test	3,66	10	1,74	3,18	homogeneous
Pre-test	2,10				

Source: January 2021 Data Processing Results.

Based on the data obtained from table 4.4 above using the degree of freedom (n1-1), (n2-1) and the significance level of 0.05 in the distribution table F with F table is (3.18). Given that F<sub>count</sub> (1.74) is smaller than F<sub>table</sub> (3.18), it can be concluded that the variance is Homogeneous.



### C. Hypothesis Testing

The hypothesis tested in this study is " $H_0$ " There is a significant Effect of Mawashi Geri Training with Weights (X) on Mawashi Geri (Y) Kick Speed in Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu". The data obtained were analyzed descriptively, then further testing the research hypothesis that has been submitted according to the problem, namely: "There is an Effect of Mawashi Geri Training With Load (X) on the Increase in Kick Speed of Mawashi Geri (Y). Based on the analysis of the  $t$  test, it yielded a calculated  $t$  of **7.203** and a table  $t$  of **1.833**. Means  $t_{count} > t_{table}$ . It can be concluded that  $H_1$  is accepted.

**Table 7.**  $t$  Test Kick Speed Results Data

Mawashi Geri Method with Load	average	SD	$t_{count}$	A	$t_{table}$	ket
Pre-test	17,1	10,8	7,203	0,05	1,,833	Significan $t$
Post-test	19,9	9,64				

Source: January 2021 Data Processing Results.

From the results of the analysis above, it can be concluded that there is an effect of Mawashi Geri Training with Weights (X) on increasing the Kick Speed of Mawashi Geri (Y) in Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu. At alpha level ( $\alpha$ ) 0.05 with a confidence level of 0.95%

### Discussion

After conducting research starting from data collection to data processing which was finally used as a benchmark as a discussion of the research results as follows: "There is an Effect of Mawashi Geri Kick Training with Weights on the Kick Speed of Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu". Programmatic exercise is a process that is carried out regularly in order to achieve better results than before (Lubis, 2016: 83).

The main purpose of training is to help athletes improve their skills and achievements as much as possible (Harsono, 2015: 39). But in fact the perfection of the research results is something that is not easy to realize, although you in its implementation has been carried out in accordance with the training procedure of Mawashi geri with Load in an effort to increase the Kick Speed of the Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu. In this case, the researcher is guided by the exercise program that has been prepared and prepared for each exercise meeting, before the researcher applies the exercises, first provides an explanation of the procedures for implementing the exercise movements and important points in the exercise, but in reality there are still obstacles in the exercise process such as:

1. When doing mawashi geri with weights, *testees* are less than perfect at doing it because this exercise they have never done before, even though it has been evaluated and directed repeatedly, the movements they produce are not perfect, because it is a limitation of their abilities.

2. Unable to control *the testee* from carrying out activities other than those that have been programmed.
3. It is difficult to persuade *the testee* to arrive on time.
4. In this case, the researcher also had difficulty finding a partner who helped to take documentation at the time of the exercise, so the researcher could not fully control *the testee* at the time of the exercise.

After conducting research starting from data collection to data processing, it was finally used as a benchmark for discussing the results of the researchers as follows: There is an Effect of Mawashi Geri Training with Weights on the Tedangan Speed of Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu, it can be seen that the difference between the two Kick Speeds before and after doing Mawashi Geri Kick training with Load it is apparent that there is an increase. From the statement, it is clear that there are differences in the results of the Kumite Karate Junior Athlete Kick Training Putera Dojo Tako Rokan Hulu before and sesudah doing Mawashi Geri training with Weights. From a Pre-test average of 17.1, this value is still said to be "sufficient" based on the Kick Speed test norms. While the average Post-test is 19.9. This value can be categorized as "good" based on the norm.

These are some of the findings in the form of deficiencies and statistical data when carrying out research for one and a half months or approximately 6 weeks at the Tako Rokan Hulu Dojo. If the deficiencies at the time of training are more minimized, it is not impossible that the increase will be even more significant.

### **Conclusion**

Based on the analysis of data and discussions that have been previously presented, it can be concluded as follows Mawashi Geri Training with Load affects the Speed of Mawashi Geri Kicks in Junior Karate Kumite Athletes Putera Dojo Tako Rokan Hulu with the results: Pre-test Average 17.1 increased by 2.8 or 3% to 19.9 on Post-test with results ( $t_{\text{count}} 7.203 > t_{\text{table}} 1.833$ ), then  $H_0$  rejected  $H_a$  accepted.

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