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Article

Differences in the Effect of Jump in Place and Skipping Training on the Speed of *Mawashi Geri* Kicks in Platinum Dojo Athletes in 2023

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Abstract

The purpose of this study was to determine the difference in the effect of jump in place and skipping training on the speed of Mawashi Geri kicks at Dojo Platinum Athletes in 2023. The research method used is the experimental method. The population in this study amounted to 48 people. The sampling technique used is purposive sampling. The number of athletes used was 16 people. This research was conducted for 6 weeks with a training frequency of 3 (three) times a week. Statistical calculations using the t-test. Hypothesis analysis using pre-test and post-test data on Mawashi Geri kick ability where the results of the t-count analysis were obtained at 12.654 then the value was compared with the table value with dk = n-1 (8-1 = 7) at the real level α = 0.05 = 1.895 which means t-count> t-table (12.654> 1.895). Thus, Ha is accepted and Ho is rejected. In this case, it can be concluded that jump in place training has a significant effect on increasing the speed of Mawashi Geri kicks for Karate Dojo Platinum 2023 athletes.

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INTRODUCTION

Karate is a martial art that originated in Japan. The martial art of karate was brought to Japan through Okinawa. This martial art was first called "tote" which means like "china hand". When karate entered Japan, Japanese nationalism was at its height, so sensei Gichin Funakoshi changed the kanji okinawa (tote: china hand) in Japanese kanji

to "karate" (empty hand) to be more easily accepted by the Japanese people (Sagitarius, 2011). Karate consists of two kanji. The first is "kara" and means "empty", the second "te" means "hand". The two kanji together mean "empty hand" (Fahmi, 2014).

To improve sporting achievements, especially in karate, training is needed that can improve all physical components, because the ability of excellent physical condition determines achievement (Akhmad, 2013). As Harsono (2015) says that the athlete's physical condition plays a very important role in his training program. The physical condition training program must be well planned and systematic and aimed at improving physical fitness and functional abilities of the body system so as to enable athletes to achieve better performance. Researchers conducted observations with athlete trainers at the platinum dojo, after observing for several days researchers found a problem in performing Mawashi Geri kicks.

METHODS

The research uses a method that is considered in accordance with the problems that the researcher wants to study, namely using experimental methods and data collection techniques using tests and measurements (Arikunto, 2006). The research used aims to find out and get information with the juduk raised, namely the difference in the effect of jump in place and skipping training on the Mawashi Geri kick speed of Platinum Dojo athletes in 2023. Before starting the exercise, pre-test data was taken from the sample which aims to determine the initial research design as follows ability of the sample. The sample was given treatment for 6 weeks. Furthermore, taking post-test data as the final result of the Mawashi Geri kick treatment.

Table 1. Research Design (Pre-Test and Post-Test One Group Design)

Pre-Test (T_1)	**Treatment (X_1 & X_2)**	**Post Test (T_2)**
Test of limb power & Mawashi Geri kick speed	Jump in place & skipping exercises	Test of limb power & Mawashi Geri kick speed

The research design used is tests and measurements, tests are a systematic process for observing a person's behavior and are described using a number scale or category system (Nasution & Heri, 2017). This means that before being given treatment, a pre-test is first held. The post-test was carried out after being given treatment 3 times a week for 6 weeks (18 meetings). To obtain the data needed in this study, the data to be collected in

this study using sports tests and measurements, namely the Mawashi Geri kick speed test. Instructions for implementing the Mawashi Geri kick speed test are attached and the assessment stage uses 3 people, including as a timer, point counter and target guard from Implementation.

After all the testing data is collected, the next step is to process the data through statistical analysis to test the hypothesis proposed, namely observing the effect of jump in place and skipping training on the speed of Mawashi Geri kicks on Platinum Dojo athletes in 2023. Data that has been obtained from the initial test results and the final test using the t-test calculation (Sudjana, 2005).

RESULT & DISCUSSION

Research Description

The data to be analyzed were obtained through tests and measurements of 16 research samples, namely the jump in place training experimental group of 8 people and the skipping jump experimental group of 8 people. From two sample groups, the effect of each jump in place and skipping training groups on increasing Mawashi Geri kick speed is seen. To determine the effect of the training given to the two treatment groups for 6 (six) weeks the data analyzed were the results of the pre-and-post test.

Table 2. Pre-Test and Post Test Results of Mawashi Geri Kick Speed of Jump in Place Group

Sample	Pre-Test		Post Test	
	Best Average Time	Category	Best Average Time	Category
Sample 1	4,26	Very Poor	3.65	Fair
Sample 2	3.40	Poor	2.53	Good
Sample 3	3.18	Poor	2.52	Good
Sample 4	3.54	Very Poor	2.77	Fair
Sample 5	3.39	Poor	2.52	Good
Sample 6	3.35	Poor	2.31	Good
Sample 7	4.17	Poor	2.98	Good
Sample 8	3.83	Poor	3.02	Good

Based on the table below, it can be described pre test result before giving treatment to the jump in place group of 8 people obtained a very good category, namely a frequency

of 0 with a percentage of 0%. The good category obtained a frequency of 0 with a percentage of 0%. The fair category obtained a frequency of 0 with a percentage of 0%, the less category 6 with a presentation of 75% and the very less category with a frequency of 2 with a presentation of 25%.

Table 3. Pre-test and Post-test Categorization of Mawashi Geri Kick Speed of the Jump in Place Group

Score Range		Category	Pre-Test		Post Test	
Men	Women		Frequency	Percentage	Frequency	Percentage
<2.12	<2.60	Very Good	-	-	-	-
2.56 - 2.13	3.14 – 2.61	Good	-	-	6	75
3.01 – 2.57	3.67 – 3.15	Fair	-	-	2	25
3.46 – 3.02	4.20 – 3.68	Poor	6	75	-	-
>3,47	>4,21	Very Poor	2	25	-	-

Post test result before treatment in the jump in place group of 8 people obtained a very good category, namely a frequency of 0 with a percentage of 0%. The good category obtained a frequency of 6 with a percentage of 75%. The fair category obtained a frequency of 2 with a percentage of 25%, the less category 0 with a presentation of 0% and the very less category with a frequency of 0 with a presentation of 0%.

Table 4. Pre-Test and Post Test Results of Mawashi Geri Kick Speed of Skipping Group

Sample	Pre-Test		Post Test	
	Best Average Time	Category	Best Average Time	Category
Sample 1	3.18	Poor	2.38	Good
Sample 2	3.53	Fair	2.80	Good
Sample 3	3.74	Poor	2.92	Good
Sample 4	4.22	Very Poor	2.71	Good
Sample 5	3.07	Poor	2.46	Good
Sample 6	3.25	Poor	2.43	Good
Sample 7	3.40	Poor	2.33	Good
Sample 8	3.12	Poor	2.35	Good

Table 5. Pre-test and Post-test Categorization of Mawashi Geri Kick Speed of the Skipping Group

Score Range		Category	Pre-Test		Post Test	
Men	Women		Frequency	Percentage	Frequency	Percentage
<2.12	<2.60	Very Good	-	-	-	-
2.56 - 2.13	3.14 – 2.61	Good	-	-	8	100
3.01 – 2.57	3.67 – 3.15	Fair	1	12.5	-	-
3.46 – 3.02	4.20 – 3.68	Poor	6	75	-	-
>3,47	>4,21	Very Poor	1	12.5	-	-

Based on the table above, it can be described the results of the pre-test result in the skipping group of 8 people obtained a very good category, namely a frequency of 0 with a percentage of 0%. The good category obtained a frequency of 0 with a percentage of 0%. The fair category obtained a frequency of 1 with a percentage of 12.5%, the less category 6 with a presentation of 75% and the very less category with a frequency of 1 with a presentation of 12.5%.

Post test result before treatment in the skipping group of 8 people obtained a very good category, namely a frequency of 0 with a percentage of 0%. The good category obtained a frequency of 8 with a percentage of 100%. The Fair category obtained a frequency of 0 with a percentage of 0%, the less category 0 with a presentation of 0% and the very less category with a frequency of 0 with a presentation of 0%.

Normality Test

Normality test is a mandatory requirement for the paired sample t-test. The normality test uses the Liliefors test and can be seen in the table below the results of the normality test of the research data as follows:

Table 6. Pre-test and Post-test Categorization of Mawashi Geri Kick Speed of the Jump in Place Group

Normality Test	L-Count	L-Table	Conclusion
Pre-Test	0.225	0.300	L-count < L-table (0.05), then the data is normally distributed
Post Test	0.227	0.300	L-count < L-table (0.05), then the data is normally distributed

Based on the table above, the normality test of the pre-test data of the jump in place group can be described L-Count of 0.225 and L-Table of 0.300. It can be concluded that the pre-test data for the Mawashi Geri kick speed result L-Count < L-Table or 0.225 < 0.300, so the pre-test data on the results of Mawashi Geri kick speed in the jump in place group of Platinum Dojo athletes is normally distributed. Then, normality test data on the post- test was obtained L-Count of 0.227 and L-Table of 0.300. It can be concluded that the post-test data on the results of Mawashi Geri kick speed L-Count < L-Table or 0.227 < 0.300, so the post test data on the results of Mawashi Geri kick speed in the jump in place group of Platinum Dojo athletes is Normally Distributed.

Table 7. Pre-test and Post-test Categorization of Mawashi Geri Kick Speed of the Skipping Group

Normality Test	L-Count	L-Table	Conclusion
Pre-Test	0.187	0.300	L-count < L-table (0.05), then the data is normally distributed
Post Test	0.274	0.300	L-count < L-table (0.05), then the data is normally distributed

Based on the table above, the normality test of the pre-test data of the Skipping group can be described L-Count of 0.187 and L-Table of 0.300. It can be concluded that the Mawashi Geri kick speed result L-Count < L-Table or 0.124 < 0.337, so the pre-test data for the results of the Mawashi Geri kick in the Skipping group at the Platinum Dojo athletes is normally distributed. Then, normality test data on the post- test obtained L-Count of 0.274 and L-Table of 0.300. It can be concluded that the post-test data on the results of the Mawashi Geri kick result L-Count < L-Table or 0.184 < 0.337, so the post test data for the Mawashi Geri kick in the Skipping group at Platinum Dojo athletes is normally distributed.

Hypothesis Test

Based on the t-distribution list table with dk = n - 1 (8-1 = 7) at the real level α = 0.05 = 1.895 which means t-count> t-table (12.654> 1.895). Thus, Ha is accepted and H0 is rejected. In this case, it can be concluded that Jump in place training has a significant effect on increasing the speed of Mawashi Geri kick for Karate Platinum Dojo athletes 2023 (Chu & Myer, 2013).

Table 8. Hypothesis Test of Mawashi Geri Kick Speed of the Jump in Place Group

Data Description	Mawashi Geri Kick Speed Result	
	Pre-Test	Post Test
Average Value	3.64	2.79
Standard deviation	0.40	0.43
Average Difference	0.85	
Difference of Standard Deviation	0.19	
t-count	12.654	
t-table	1.895	

Based on the t-distribution list table with dk = n - 1 (8-1 = 7) at the real level α = 0.05 = 1.895 which means t-count> t-table (8.968> 1.895). Thus, Ha is accepted and H0 is rejected. In this case, it can be concluded that Skipping training has a significant effect

on increasing the speed of Mawashi Geri kick for Karate Platinum Dojo athletes 2023 (Syauki, Yunanto, & Maesaroh, 2021).

Table 9. Hypothesis Test of Mawashi Geri Kick Speed of the Skipping Group

Data Description	Mawashi Geri Kick Speed Result	
	Pre-Test	Post Test
Average Value	3.44	2.55
Standard deviation	0.39	0.23
Average Difference	0.89	
Difference of Standard Deviation	0.28	
t-count	8.968	
t-table	1.895	

Based on the t-distribution list table with dk = n1 (8) + n2 (8) - 2 = 14 at the real level α = 0.05 = 1.761 which means t=count < t-table (0.589 < 1.761), so H0 is accepted. In this case, it can be concluded that there is no significant difference between jump in place and skipping training on increasing the speed of Mawashi Geri kick for Karate Platinum Dojo athletes 2023 (Rinaldi, 2022).

CONCLUSION

This section explains the conclusions of the results of hypothesis test and discussion of the research hail, so the researcher concludes that there is a significant effect, namely jump in Place and skipping trainings on Mawashi Geri kick speed at Medan Platinum Dojo athletes in 2023.

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