



The Effect of Circuit Training on Word Performance in Forki Palembang Karate Athletes

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Abstract

This study aims to determine the effect of circuit training training on the performance of athletes, said FORKI Palembang karate. The type and design of research used in this study is quantitative research with the research design of One Group Pre-test Post-test. The subjects in this study were karate athletes, especially 20 athletes of cadet to senior age at the Wadokai Central Dojo in Palembang. The data analysis techniques in this study are normality test, homogeneity test, and t-test using paired sample t-test. The results of the research on the effect of circuit training training on performance The word in FORKI Palembang karate athletes was obtained from the paired sample t-test, namely sig (2-tailed) $0.000 < 0.05$. These results show that the hypothesis is accepted, which means that there is an Effect of Circuit Training Training on Word Performance in FORKI Palembang Karate Athletes.

Keywords: Circuit Training Training, Word Performance



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INTRODUCTION

Karate is one of the many martial arts sports that has developed in Indonesia much earlier. Karate is a martial art originating from Japan and is a hard martial arts sport because it uses physical techniques such as punches, tanks, and kicks (Teguh, Sudarsono & Ikhwan, 2021: 23). Karate has 4 (Four) kinds of schools recognized by the WKF (World Karate Federation), the four schools are Shotokan, Goju-ryu, Shito-ryu, and Wado-ryu.

Each of these schools has different characteristics, it can be seen from the various types of word differences that each school has. Karate has three main parts, namely Kihon (Basic technique), Kata (Movement pattern/move) Kumite (Fight). Kihon is a basic karate technique exercise consisting of basic punching, tanking, and kicking techniques (Hotliber, 2015:58). The word is a move / movement pattern that is standard and cannot be changed at will, while Kumite is a free sparring match / sparring carried out by athletes but still complies with the rules of the competition so that injuries do not occur. However, in this study, the author will focus more on the Word technique.

Words are divided into two branches, namely individual words and team words. Individual words are performed by one karateka person, while team words are performed by three people, who when finished performing the word directly demonstrate the application of the word (Bunkai). Karate is also an achievement sport that is often competed in certain events starting from the regional, provincial, national, and even international levels.

In the sport of karate, the element of appearance is needed by an athlete to support achievements, To be able to achieve high achievements in karate and master word movements does not happen easily, but rather has to go through many processes and stages of basic technique practice first. Basically, the basic techniques of karate have been possessed by every athlete, but it needs to be improved again in order to improve the appearance of words and support achievements in athletes.



Systematic and well-programmed exercise is the right solution to improve word performance in athletes, one of the exercise programs that can improve the appearance of words well is through circuit training training programs. By doing a circuit training training program with basic movements can help improve the appearance of words in an athlete, because from that basic technique, the appearance of words automatically determines the quality of good or bad karateka training results so far. Circuit training in karate is one of the training programs where there are several posts and from each of these posts there are different types of basic technique exercises that have been determined, where an athlete must complete one by one predetermined posts and if all posts have been completed properly by the athlete then one circuit training has been said to be completed. If the athlete has done the basic circuit technique training well, it will produce the right basic technical movements and support the performance of the athlete's words.

Based on the results of observations that have been made on athletes said FORKI Palembang during word training, it was seen when doing word movements that were supposed to use Zenkutsu Daci horses but the athlete changed with the position of Sochin Dachi's horses with Gedan Burai tanks. It can be seen that the movements of the words on the athlete are not quite right. This happens because of a lack of understanding of the basic techniques that affect the performance of the athlete's words.

Karate

Karate is a martial art that originated in Japan and was brought to Japan through Okinawa. This martial art was originally known as "Tote" which means "Hand of China". When karate first entered Japan, Japanese nationalism at that time was in such high that Sensei Gichin Funakoshi (Creator of the Shotokan School) changed the Okinawan kanji "Tote" (Chinese Hand) to Karate (Empty Hand) in order to be more easily accepted by the Japanese people. Karate consists of two kanji, the first "Kara" which means "empty" and the second "Te" which means "Hand". When these two kanji are put together it means "Karate" (Simbolon, 2013:1). Gichin Funakoshi began introducing karate in 1921. Karate is a martial art that relies on bare hands by using attack techniques in the form of punches, kicks, and slams. In everyday life the phrase karate is more often used than karate-do, because of the role of the mass media that popularized it (Hotliber Purba & Frank Gunawan, 2016: 2).

The Main Techniques of Karate

According to Bermanhot Simbolon (2013:2) the most important karate techniques are three, namely 1) Kihon, are basic karate techniques such as punches, tanks, and kicks. 2) Kumite, which is a form of fighting while still following the applicable rules, where two athletes face each other on a mat that pits each other technically, physically, and mentally. 3) Word, which is a combined move of a whole set of basic techniques formed into a movement pattern with a fast rhythm, slow, hard, and soft.

Circuit Training

According to M. Sajoto (1995) quoted from Setyo Budiwanto (2012: 70) Circuit training is a form of training program consisting of several posts and in each post an athlete performs a predetermined type of training. One circuit training is said to be completed if an athlete has completed training in all posts according to the specified training program (Fuad Setiawan, 2019: 18). The provision of a Circuit training training program is initiated by choosing an exercise program that is progressively improved and leads to the level of training load, length of training time, and training intensity.



The purpose of circuit training is to simultaneously improve the fitness of the whole body, namely the elements of endurance, flexibility, strength, power, muscular endurance, agility, and speed. That's why the form of training in circuit training is usually a combination of all the elements of some of these physiques. Based on the statement above, it can be concluded that Circuit training is a type of exercise by combining various types of exercises that are divided into several posts in one

RESEARCH METHODS

This study uses the One Group Pretest-Posttest Design research design according to (Sugiyono, 2011: 74) so that the treatment results can be known more accurately, because researchers can compare with the results before being given treatment. The study can be described as follows:

O₁ X O₂

Figure 1. One Group Test Pretest and Posttest Design

Information:

- O = Pretest Value (Word performance technique)
- X = Treatment Basic word training (Circuit training)
- O₂ = Posttest Value (Word appearance technique)

In this study design, the initial test (O₁) is a form before the administration of basic technical treatment to athletes, which aims to obtain data on word-bearing skills in karate athletes. After the athlete performs the word movement then the athlete is given treatment in the form of a form of basic technical training with the circuit training method. While (O₂) is a form of word performance after being given treatment in the form of basic word technique exercises with circuit training methods with Zenkutsu Dachi easel movements, Gedan Burai tanks, and combined with Chudan Tsuki punches which aim to see the development of the treatment and obtaining data on word-bearing skills.

Population and Sample

The population in this study was 20 (Twenty) Athletes of the Word Karate FORKI Palembang, as well as being used as a sample, where the sample used was a saturated sample which means that all members of the population were used as samples.

Data Analysis Techniques

The data obtained from this study needs to be processed and analyzed statistically using the t-test formula. In this case, the researcher uses SPSS 22 software. Before managing data, researchers first perform the following steps:

1. Normality Test. Normality tests are performed to determine whether the data comes from a normally distributed population or not. Data normality testing was carried out using kolmogrov smirnov means with the help of SPSS 22 software.
2. Homogeneity Test. The homogeneity test is one of the prerequisite tests in statistical analysis used to determine whether two or more groups of sample data from populations with the same variance or not.
3. T test. To see the significance of the value of the processed test results, an analysis of the T distribution test data for an average of two non-free samples was carried out, namely the paired sample t-test using SPSS 22 software.



RESULTS OF RESEARCH AND DISCUSSION

Table 1. Pre-Test and Post-Test Data

No	Name	Pre-Test	Post-Test	No	Name	Pre-Test	Post-Test
1.	Farhan	21,4	24,8	11.	Zia	19,8	22,0
2.	Jeni	20,0	23,6	12.	Pawaz	21,0	24,8
3.	Nazwa	19,4	21,0	13.	Dinda	20,0	24,2
4.	Rizki	20,8	23,0	14.	Radika	19,8	22,4
5.	Fadil	21,4	23,8	15.	Azura	19,6	23,6
6.	Arjuna	18,2	22,0	16.	Mertina	18,0	21,4
7.	Alando	19,0	22,8	17.	Aisyah	19,4	23,6
8.	Acha	18,0	21,4	18.	Dwi	20,0	24,8
9.	Fahrezi	20,2	23,0	19.	Ayub	20,2	24,0
10.	Jasmine	20,0	23,6	20.	Nadica	19,8	23,2

Table 2. Normality Test Results (Kolmogorov Smirnov)

	Statistic	df	Sig.
Pre-Test	.127	20	.200
Post-Test	.209	20	.022

The results of the normality test of pre-test and post-test data showed sig results of 0.200 and 0.022, where the results were greater than sig 0.05 ($\text{sig} > 0.05$) then the data taken from the sample population were normally distributed.

Table 3. Homogeneity Test Results

Levene Statistic	df1	df2	Sig.
.244	3	16	.864

Then, for the homogeneity test results of pre-test and post-test data showed a significant value of 0.864, where this result was greater than sig 0.05 ($0.864 > 0.05$) then the hypothesis states that data from homogeneous populations and samples are accepted, which means that the data are homogeneous.

Table 4. Paired Sample T-Test Results

	t	df	Sig.
Pair Pre test - Post test	20.592	19	.000

Based on the calculation results in the table obtained Sig. (2-tailed) $0.000 < 0.05$ then H_0 was rejected and H_a was accepted, it can be concluded that "There is a significant influence between Circuit Training training on Kata performance in FORKI Palembang karate athletes."

Discussion

This study was conducted with the aim of determining whether or not there is a significant influence of the results of circuit training training as a treatment on performance results, said Gojushiho sho in FORKI Palembang karate athletes. To find out whether there is a change in the increase or not, the researcher conducts pre-test and post-test tests. The pre-test is carried out at the beginning of the meeting before later being given treatment (treatment) through circuit training training, then the post-test is the final test of the appearance of the word after being given treatment (treatment) from circuit training training.

Based on the results of statistical analysis, it can be seen that the results of the normality test of the pre-test values and Post-test is both normally distributed where the value of both is greater than sig = 0.05, namely for the pre-test $0.200 > 0.05$ and the post-test is $0.022 > 0.05$.



Then the results of the homogeneity test stated that the variance in the pre-test and post-test samples was the same (homogeneous) with a value of $0.864 > 0.05$. And the last of the T test results using the Paired sample T-test test produces a sig value. (2-tailed) $0.000 < 0.05$, where it can be interpreted that the hypothesis (H_a) is accepted and H_0 is ditolah, so the hypothesis states that there is a significant influence of Circuit Training training on the performance of Kata in FORKI Palembang karate athletes.

CONCLUSION

Based on the results of the research analysis using the paired sample t-test, it can be concluded that there is a significant influence of Circuit Training training on the results of word performance in FORKI Palembang karate athletes, from the results of the hypothesis test, data using the paired sample t-test obtained a sig (2-tailed) result of $0.000 < 0.05$ where the results showed that H_0 was rejected and H_a was accepted (Hypothesis accepted), which means that there is an Effect of Circuit Training Training on Word Performance in FORKI Palembang Karate Athletes.

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