

## THE EFFECT OF MOVING AND FIXED TARGET TRAINING ON THE ACCURACY OF GYAKU-TSUKI PUNCHES KARATE ATHLETES

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### Abstract

*The purpose of this study is the effect of fixed target training and moving on the accuracy of gyaku-tsuki punches in karate athletes of PGRI Palembang University. This research is carried out in the form of pseudo-experimental research, with experimental methods. The subjects of the study were 60 karate athletes from PGRI Palembang University. The instrument used is the precision of the gyaku-tsuki punch. Data analysis techniques use hypothesis tests with t-test analysis (paired sample t test). Based on the results of the paired t test analysis, the first t test sample has obtained an F value of  $0.099 > sig 0.05$ . Based on the results of the percentage increase in accuracy results, it is known that accuracy with moving target training has a greater increase than training using fixed targets. Based on these results, it can be concluded that there is an effect of fixed target training and moving on the accuracy of gyaku-tsuki punches in PGRI Palembang University karate athletes and the percentage of accuracy increase with moving target training has a greater increase than regular training.*

**Keywords:** *fixed target practice method, moving target practice method, gyaku-tsuki punch accuracy*

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## INTRODUCTION

Karate requires certain skills, namely karateka must master the basic techniques of karate sports. The principle of karate is that karateka must always be able to perform punches, kicks, dodges or deflections or other movements needed to support these basic skills. The ability to display proficiency in karate is determined by mastery of basic techniques thoroughly accompanied by explosive movements so that it is determined by the perfection of mastery of basic

techniques (Manullang et al., 2021). For that it must be studied and trained properly and intensively.

In karate martial arts, there are two types of movement components that are competed, namely kata and kumite. According to (Wahid, 2007) Words are a series of several kihon that were arranged through a long process in the past into a special form that has a high value of beauty, philosophical meaning, and is governed by a standard standard in its application. While according to (Bermanhot Simbolon, 2014), kumite literally means "meeting hands".

Karate attack techniques include hand strikes and foot strikes thoroughly. Hand attacks in karate consist of punches consisting of chudan tsuki, jodan tsuki, and so on. While foot attacks consist of mae geri kicks, mawashi geri kicks, ushiro geri kicks and so on (Sujoto. J.B, 2002). Punches and kicks are one of the important forms of attack in karate that have a longer range than punches and points obtained from a kick are higher than punches (Manullang, 2017).

To have fast and precise punch and kick movements requires considerable practice. One of the pukulah in Karate is the gyaku tsuki punch which is the dominant punch made by a Karate athlete in kumite (individual) between Oi tsuki, jodan and Uraken (Matutu et al., 2019). According to regulations (WKF, 2023), at this time kumite requires speed and accurate punches to the target area, one of which is the gyaku tsuki punch which obtains a value of 1, namely (yuko) a punch carried out with a straight hand position, hitting towards the stomach.

The Gyaku tsuki punch is a straight punch towards the solar plexus as opposed to the easel steps (Kadir et al., 2021). (Manullang et al., 2014) Punching is one of the dominant techniques in karate. Gyaku tsuki chudan punch is a punch technique by cutting the opponent's attack / turning the opponent's attack towards the solar plexus. Hands hit in the opposite direction to the feet, hips rotated to get maximum blow. Gyaku-tsuki punches involving the back arm and shoulders, often referred to as reverse punches, are performed in the opposite

position to the position of the zenkutsu-dachi stance, for example the left leg in front thus hitting with the right hand, gyaku-tsuki punches are often used during combat (kumite) because gyaku-tsuki punches are very effective and safe to get points in battle (Manullang, 2018). This can be done well and get more power if you use the correct hip rotation. In addition to the correct hip rotation, a punch is said to be good if the blow is right in the direction of the intended target. To train the punch to be right on target can be done by practicing using makiwara media.

Makiwara is a pole of planks planted into the ground where the top is wrapped around straw as a target. Karate practitioners usually practice for hours using this makiwara, one of the functions of makiwara to strengthen the hand and strengthen the wrist to be able to give birth to more powerful punching techniques (Spiezia et al., 2010). If the punching technique is trained in the absence of a target, then a karateka will only be proficient in hitting without a target or targets. With the makiwara media, athletes can train their punches to become stronger, faster and better hitting accuracy. In addition to using tools or makiwara media, there are other media to practice punches, namely punching pads or a target target tool.

Punches are a common kind of body violence and are being assessed on a regular basis in expert witness testimonies (Adamec et al., 2021). Punching pad is a target tool to train the speed and accuracy of punches in all martial arts practices. Karate athletes in general have done punching training with a punching pad media, but when doing punches are only focused on speed, even though accuracy plays an important role in kumite. Accuracy is a factor needed for a person to achieve the desired target. Researchers found that there are most athletes when running training lack focus and pay less attention to instructions from the coach so that what the coach instructs does not go well which results in hitting techniques cannot be right on target.

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## METHOD

The research method used is quantitative. According to (Sugiyono, 2022) quantitative methods are research methods based on philosophy and positivism, which are used to examine certain populations or samples of data collection using research instruments, quantitative/statistical data analysis, which aims to test predetermined hypotheses. The research was carried out at PGRI Palembang University.

Population is a generalized area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2022). The population of this study is Karateka University PGRI Palembang which amounts to 120 people.

According to Suharsimi (Arikunto, 2018) The sample is a portion or representative of the population studied. The sample is a portion of the number and characteristics possessed by the population (Sugiyono, 2022). Sampling in this study used purposive sampling. According to (Sugiyono, 2022) purposive sampling is a sampling technique with certain considerations. Based on these criteria, there are 60 male athletes.

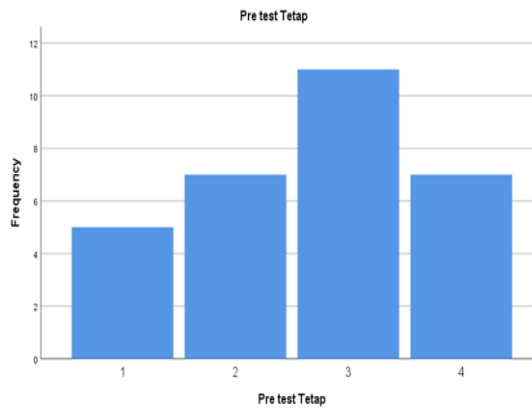
## RESULT AND DISCUSSION

The results of the study were obtained based on the results of pretest and posttest data on the accuracy of gyaku-tsuki punches on karate athletes at PGRI Palembang University. The results of each of these data are outlined as follows:

1. Data on the accuracy of gyaku-tsuki punches with fixed target training pre-test and post-test.

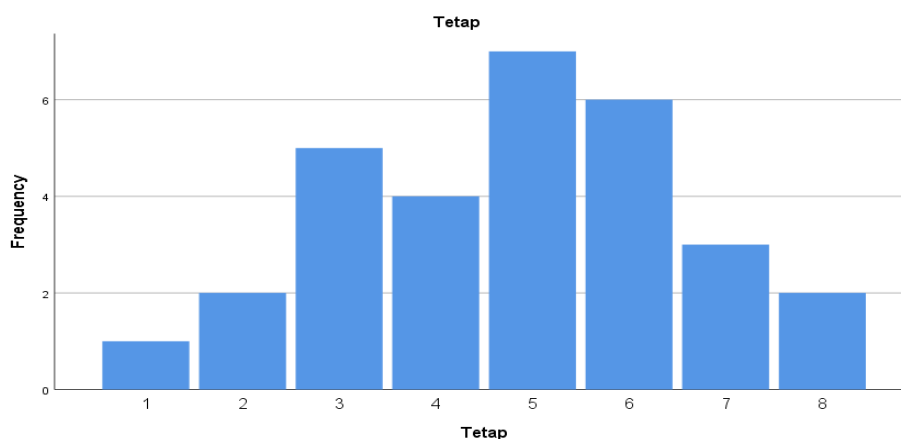
The accuracy of gyaku-tsuki punches on PGRI Palembang University karate athletes with fixed target training when the pretest of 30 karateka obtained maximum value = 4, minimum value = 1, mean = 2.67, standard deviation = 1.028. The results of research on the accuracy of gyaku-tsuki punches on karate athletes of PGRI Palembang University with fixed

target training in this study can be seen in the diagram below.



**Figure 1.** Gyaku-tsuki punch accuracy diagram with fixed target practice during pre-test

While the accuracy of gyaku-tsuki punches on PGRI Palembang University karate athletes with fixed target training during the post-test of 60 karateka obtained maximum value = 8, minimum value = 1, mean = 4.80 standard deviation = 1.789. The results of research on the accuracy of gyaku-tsuki punches on PGRI Palembang University karate athletes with fixed target training during the posttest in this study can be seen in the diagram below:

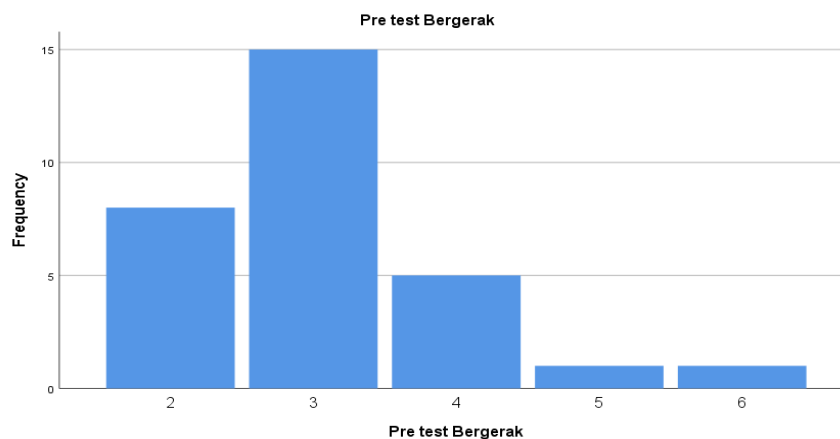


**Figure 2.** Diagram of the accuracy of gyaku-tsuki punches with fixed target training during the post-test.

The results of statistical research data on the accuracy of gyaku-tsuki punches on karateka PGRI University Palembang with fixed target training average pretest value of 2.67, and average post test of 4.80. To determine the magnitude of the increase in the effect of fixed target training on the accuracy of gyaku-tsuki punches in karate athletes at PGRI Palembang University in this study using the percentage increase formula.

1. The precision of gyaku-tsuki punches with pre-test and post-test moving target training.

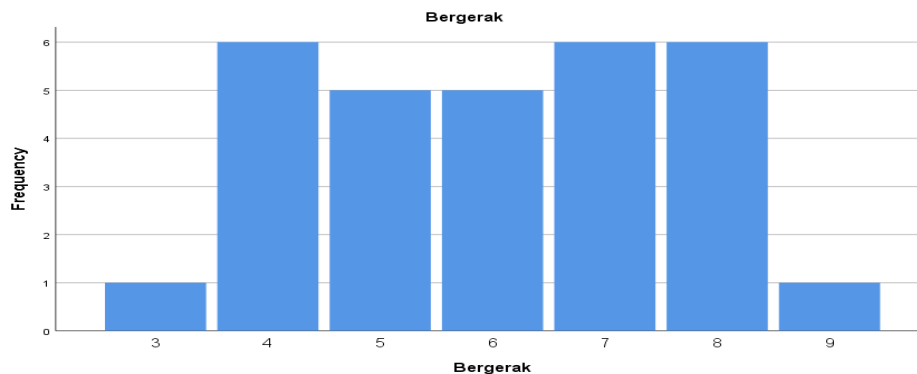
The accuracy of gyaku-tsuki punches on karateka at PGRI University Palembang with movement exercises during the pretest of 15 children obtained Maximum scores = 6, Minimum value = 2, mean = 3.07, standard deviation = 0.944. The results of research on the accuracy of gyaku-tsuki punches with moving target training on karate athletes at PGRI Palembang University in this research can be seen in the diagram below;



**Figure 3.** Diagram of the accuracy of gyaku-tsuki punches with moving target practice during the pre-test.

The accuracy of gyaku-tsuki punches on karateka at PGRI University Palembang with movement training during the posttest of 30 karateka obtained maximum value = 9, minimum value = 3, mean = 6.03, standard deviation =

1.629. The results of research on the accuracy of gyaku-tsuki punches with moving target training on karate athletes at PGRI University Palembang in this study can be seen in the diagram below:



**Figure 4.** Diagram of the accuracy of gyaku-tsuki punches with moving target practice during the post-test

The statistical results of gyaku-tsuki punch accuracy research on karateka PGRI University Palembang with moving target training obtained an average pre-test value of 2.67, and an average posttest of 3.07.

## Discussion

In performing gyaku-tsuki punches, accuracy or accuracy is very necessary, this is because with good accuracy, the target of the punch target will be achieved and athletes can get points in kumite matches. Accuracy is defined as a person's ability to direct a motion at the target in accordance with the goal. According to (Budiwanto, 2012) Accuracy is a person's ability to direct a motion to a target in accordance with the goal". (Permana et al., 2021 ) Accuracy is the compatibility between the will (desired) and reality (result) obtained against a certain target (goal). Accuracy is a factor that someone needs to achieve the desired target. Accuracy relates to a person's desire to give direction to a goal with a specific purpose and purpose. People who have good accuracy can control the movement from one target to another. This target may be a distance or it may be a direct object that must be subjected to one part of the body (Gunadi et al., 2023). With a good increase in gyaku tsuki punch accuracy, it will support a more



optimal increase in gyaku tsuki punch accuracy. From one side of the target movement training method, athletes emphasize that each part is mastered first well, then continued with the next technique which also prioritizes physical condition and technique. To improve the accuracy of gyaku-tsuki punches in athletes, good training is needed to improve accuracy. One of them is precision training with fixed targets and moving targets. Punch training with fixed targets and moves is expected to increase the accuracy of gyaku-tsuki punches for athletes.

(Manullang et al., 2021) In practicing a martial art, a tool is needed to support training activities, the tool is a fixed target, this fixed target is very famous among karate martial arts practitioners, the tool is makiwara, then the moving target tool is a punching pad. Makiwara comes from two words, namely maki which means package or roll and wara which means straw so literally makiwara means straw, Makiwara is a pole of planks planted into the ground where the top is wrapped around straw as a target / target. To improve the accuracy of the punch, gyaku-tsuki can use target training.

Based on the results of the paired t test analysis, the first t test sample has obtained an F value of  $0.099 > sig 0.05$ . Based on the results of the percentage increase in accuracy results, it is known that accuracy with moving target training has a greater increase than training using fixed targets. This is because with the target of moving, athletes are trained to be able to train accuracy when competing. This is very important because in karate matches the opponent is always in a moving position so that instincts must be trained so that athletes have good hitting accuracy in making punches.

## CONCLUSION

The accuracy of hitting with moving target training has a greater improvement compared to training using fixed targets. This is because with the target of moving, athletes are trained to be able to train accuracy when competing.



This is very important because in karate matches the opponent is always in a moving position so that instincts must be trained so that athletes have good hitting accuracy in making punches.

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