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The Effect of Interval Training on the Sabit Kick Speed of UKO Pencak Silat Athletes at Universitas Islam Indragiri Riau

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ABSTRACT: In pencak silat, speed in kicking is very important to score as many points as possible in order to achieve optimal performance. If an athlete does not have speed when kicking, then their kick is easy to predict, can be avoided, blocked by the opponent, or even countered with a counterattack. Thus, it is clear that the speed of kicks needs to be considered to achieve success in pencak silat competitions. Without speed in kicks, the executed kicks will not be optimal. Therefore, it is important for pencak silat athletes to maintain strong and good speed in their crescent kicks so that the kicks can be executed accurately. The interval training program has truly had a significant impact on the speed of the crescent kicks of the pencak silat athletes at UKO Universitas Islam Indragiri. This can be seen from the very significant improvement where initially, the average athlete could only deliver around 14 kicks in 10 seconds, but after regularly attending 16 training sessions, they could reach an average of 20 kicks.

KEYWORDS: Interval Training, Speed, Hook Kick, Pencak Silat, UNISI

I. INTRODUCTION

Pencak silat is a type of sport that prioritizes achievement and originates from Indonesia, which must be developed. Pencak silat is also competed in as a performance competition at the local, national, and international levels (Malinda, 2021). The Indonesian Pencak Silat Association (IPSI) is a pencak silat organization that was established on May 18, 1948, but was only recognized in 1950 in Yogyakarta. The congress decided to change the name of IPSI (Ikatan Pencak Seluruh Indonesia) to IPSI (Ikatan Pencak Silat Indonesia). IPSI was established with the aim of becoming a platform and tool for struggle (Kriswanto, 2019).

Pencak silat is a sport involving blocking, attacking, and self-defense with or without equipment (Kriswanto et al., 2019). There are several categories of pencak silat, namely: match, individual, pair, and team (Syamsiah, 2020). Pencak silat has developed rapidly in Indonesia, particularly in West Sumatra (Ihsan et al., 2024). This is evident from the fact that many pencak silat schools have been established to provide training. Pencak silat training has been conducted for all ages, including early childhood, pre-teens, teenagers, and adults (Sin & Ihsan, 2020).

Pencak silat, as a type of traditional Indonesian martial arts, continues to evolve into a competitive arena that requires the best techniques, tactics, and physical condition (Mardinus et al., 2025). In pencak silat competitions, kicking techniques are one of the main types of attacks and often score points (Kiram et al., 2023). Among the various types of kicks, the crescent kick has become the most commonly used method by athletes because it offers a fast, elastic, and efficient curved path to attack different parts of the opponent's body at various angles. To perform a crescent kick well, athletes require a combination of leg muscle strength, speed, agility, hip flexibility, and maximum neuromuscular coordination (Sutopo, 2021).

Based on several studies conducted, more than 75% of the attacks used in pencak silat matches are attacks that utilize kicking techniques (Suwirman, 2019). Kicks that must be executed quickly and powerfully to make them difficult for the opponent to anticipate. Among the various types of kicks used in matches, the scythe kick is a common choice for martial artists because it is effective in scoring points.

According to (Marlianto, 2018), a scythe kick is a type of attack that often results in more tangible and certain points or scores compared to other attacks. When performing a scythe kick in a match, the kick's speed is often not optimal, making it easier for the opponent to catch and take down the athlete.

Based on (N. Z. Pratama, 2018b), the speed of a kick is crucial because its power is much greater compared to a punch. In pencak silat, speed in kicking is very important to score as many points as possible in order to achieve optimal performance. If an athlete does not have speed when kicking, then their kick is easy to predict, can be avoided, blocked by the opponent, or even

countered with a counterattack. Thus, it is clear that the speed of kicks needs to be considered to achieve success in pencak silat competitions. Without speed in kicks, the executed kicks will not be optimal. Therefore, it is important for athletes to maintain strong and good speed in pencak silat crescent kicks so that the kicks can be executed accurately (R. Pratama et al., 2020).

From the results of the author's observations and discussions with the coach, during matches, several athletes often launch attacks using scythe kicks. However, this scythe kick can still be parried and countered by the opponent, resulting in additional points for the opposing side. (N. Z. Pratama, 2018a) Such a scythe kick clearly becomes a weakness for the athletes. In recent years, the pencak silat athletes of UKO Indragiri Islamic University have shown a decline during training, resulting in a relatively low speed in executing scissor kicks to the target. This was evident during training when a physical condition issue, namely speed, was found, making it easy for opponents to catch them.

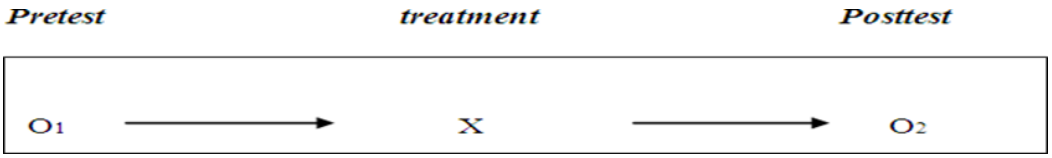
In this study, there is a goal to uncover the influence of interval training on the speed of the crescent kick of UKO Islamic University Indragiri pencak silat athletes. Because the author has observed the weakness of the athletes' scissor kicks during recent competitions. This can be caused by various factors. One of them is the unstable physical condition, which prevents achieving optimal match results. Therefore, an initial step is needed to understand the physical condition of the athlete, especially in terms of speed.

Therefore, as the author, I suspect from observations and expert opinions that the scissor kick ability of the pencak silat athletes at UKO Universitas Islam Indragiri is experiencing issues, namely the weakness in leg muscle power and the athletes' speed. Hence, I am interested in conducting this research, hoping that the results can illustrate the discussed influences and variables and produce anticipatory steps to improve the performance of the pencak silat athletes at UKO Universitas Islam Indragiri.

2. METHODS

The type of research used in this study is quasi-experimental research (Creswell, 2014). This study aims to determine the effect of a treatment on the dependent variable by applying a specific treatment to the research subjects and then observing the changes that occur. The experimental method is the method used to determine whether there is an effect from something applied to the subjects being investigated (Sugiyono, 2020).

The design in this study uses a one-group pretest-posttest pre-experimental design. The research design can be described as follows:



3. RESULTS

Before the hypothesis testing was conducted, a prerequisite test, namely the normality test (Lilliefors), was performed. The field research results showed that the pre-test and post-test data were normally distributed ($p > 0.05$). Here is a summary of the descriptive statistics of the athletes' scissor kick speed ability before and after being given the interval training program.

Table 1. Descriptive Statistics of Sabit Kick Speed (10 Seconds)

	N	Minimum	Maksimum
Pre-test	20	12	17
Pos-test	20	18	24

Based on Table 1, there is a very good improvement in the average speed of the athletes' scissor kicks. Before being given interval training (pre-test), the average number of kicks the athletes could perform in 10 seconds was 14.45 kicks. After being given the interval training program for 16 sessions (post-test), the average increased drastically to 20.60 kicks. The maximum value also increased from 17 to 24 kicks in 10 seconds. The significant increase was statistically proven by conducting a parametric test using the Paired Sample T-Test.

Table 2. Paired Sample T-Test Results

Variabel	Mean	t-Value	df
Pre test-Post Test	-6.15	-15.428	19

The results of the Paired Sample T-Test in Table 2 show a t-value of -15.428 with a significance value (p-value) of 0.000. Because the significance value is much smaller than the real level (α = 0.05), Ho is rejected and Ha is accepted. This proves that there is a very significant and positive effect of interval training on the speed of the scissor kick of UKO Islamic University Indragiri pencak silat athletes.

4. DISCUSSION

Based on the results of the t-test analysis on the pre-test and post-test data, it has been proven that the application of the interval training method has a significant impact on the improvement of the athletes' crescent kick speed. This improvement is crucial, considering that pencak silat is a sport that demands high physical abilities. According to the view of (Salsabila et al., 2025), an athlete's performance is a combination of technical, tactical, mental, and physical qualities.

Field findings indicate that before the intervention, athletes' attacks were often easily anticipated and intercepted by opponents due to the slow leg pulls. However, after the speed of the leg muscles increased thru interval training, the effectiveness of the attacks drastically improved. This confirms the statement by (Sukron et al., 2024) that the faster the movements of the martial artist, the harder it is for the opponent to avoid them and the easier it is to score points. The optimal speed of the crescent kick in this athlete has proven to prevent falls by opponents, in line with the opinion of (Djoronga & Saiman, 2025) which emphasizes that speed is key to making the kick difficult to catch.

5. CONCLUSION

Based on the research results and data processing conducted in the field, it can be concluded that the interval training program truly has a significant and positive impact on the speed of the scissor kicks of the pencak silat athletes at UKO Universitas Islam Indragiri. It can be seen that there is a very significant improvement, where initially the average athlete could only deliver around 14 kicks in 10 seconds, but after regularly attending 16 training sessions, they could reach an average of 20 kicks.

For coaches and practitioners of pencak silat, the results of this research can be one of the solutions that can be applied in training places. Interval training has proven to be not just a physically exhausting routine, but an effective way to condition athletes' muscles and breath so they can continue to attack quickly without easily running out of energy in the final rounds.

Of course, this research still has some weaknesses to be improved because it has only been tested on a limited group of athletes. In the future, it would be very beneficial if other researchers try to apply this training method to young martial artists or female athletes, so that our pencak silat coaching knowledge becomes richer and more tested for all groups.

6. ACKNOWLEDGMENT

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