



14 (2) (2025) 390 - 395

Journal of Physical Education, Sport, Health and Recreations

<https://journal.unnes.ac.id/journals/peshr>



Analysis of the Speed of Ap Chagi Kick Technique in Taekwondo Senior Athlete Dojang Garuda Satria Banjarbaru City

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Article History

Received April 2025

Accepted May 2025

Published Vol.14 No.(2) 2025

Keywords:

Taekwondo; Ap Chagi
Kicks Technique; Speed

Abstract

This study aims to analyze the speed of Ap Chagi's kick technique in senior Taekwondo athletes Dojang Garuda Satria Banjarbaru City. Quantitative descriptive research using an experimental survey design was employed in this investigation. The sample consisted of 15 senior athletes selected using the purposive sampling technique. The measurement was carried out by counting the number of Ap Chagi kicks that were successfully made within 15 seconds using the stopwatch and the target kick. The results showed that of the 15 athletes tested, 5 people (33%) were in the "very good" category, 7 people (47%) were in the "good" category, and 3 people (20%) were in the "adequate" category. No athletes are in the "less" or "less" category. The conclusion of this study is that Ap Chagi's kick speed in senior athletes of Dojang Garuda Satria Banjarbaru City is generally in the good to very good category, which reflects good mastery of technique and physical readiness in supporting performance during matches.

How to Cite

Marshanda, I. C., Anggara, N., & Amirudin, A. (2025). Analysis of the Speed of Ap Chagi Kick Technique in Taekwondo Senior Athlete Dojang Garuda Satria Banjarbaru City. *Journal of Physical Education, Sport, Health and Recreation*, 14 (2), 390-395.

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INTRODUCTION

To improve one's physical health, exercise is a type of organized physical activity that includes repeated motions of the body (Khairuddin et al., 2017). By doing exercise regularly, planned, and according to needs, a person's soul and body will become healthier and more qualified (Verawati & Psi, 2017). According to Wafiroh et al., 2022 Sport is a physical activity carried out by a person with various goals, one of which is to achieve achievements. One of the efforts that athletes can make to be able to achieve better achievements is by consuming food with balanced nutrition. Usually athletes who have optimal nutritional status can help the recovery process faster, reduce the risk of injury, and increase concentration and focus, so that in the end they can achieve better achievements (Anggara et al., 2016). Achievement sports are physically activities that are professionally managed with the aim of improving and achieving achievements in certain sports, especially taekwondo. One of the many martial arts that are booming in popularity in Indonesia is taekwondo. Taekwondo is a martial art that originated in Korea, this martial art uses hands and feet as the main weapon. Taekwondo can be learned by anyone without restrictions on age, gender, or social status. Taekwondo has become a popular sport all over the world. Choi Hong Hi created the sport in 1955 by combining Korean and international martial arts, such as Taekkyeon and karate. After being inducted into the Olympics in 2000, taekwondo experienced rapid development and became better known.

The name "Taekwondo" comes from three words: "tae" which means kick, "kwon" which means punch, and "do" which means road or art. When interpreted simply, Tae Kwon Do means a martial art that aims to discipline oneself by using barefoot and handless techniques (Fachrezzy et al., 2021). Taekwondo not only trains physical abilities, but also pays great attention to the development of mental and ethical discipline (Novian & Noors, 2020). By studying taekwondo seriously and correctly, one can develop a strong mental and ethical attitude. Taekwondo is a comprehensive sport that includes spiritual, martial arts, sports, and cultural aspects as a whole (Yanti et al., 2016). Taekwondo training requires a large indoor space with a mat measuring 8 x 8 meters, as well as protective equipment such as hand, foot, head, body, mouth, genitals, and gloves. Mastering the basic techniques of taekwondo is the key to becoming a competent taekwondoin.

A taekwondoin must master basic techniques, the basic techniques of taekwondo are divided into several parts, namely, moves (seogi), punches (ji-reugi), deflects (makki), and kicks (chagi). Some basic kicking techniques (chagi) include dollyo chagi, ap chagi, yop chagi, dwi chagi, nare chagi, and dwi hurigi (Izah & Prasojo, 2024).

In this day and age, taekwondo is not only known as a martial art, but also as an achievement sport that is competed at various levels, from regional to international. The two categories that are contested in taekwondo are, kyourugi (fighting) and poomsae (art). In kyourugi kicking being the most commonly used attack technique, the kick technique in taekwondo has a variety of variations, one of which is Ap Chagi or the front kick, which is famous for its speed and can be used both for attacking and defending. To what extent this tactic is useful during a match is heavily dependent on kick speed, so the factors that affect that speed are crucial aspects that need to be further researched (Koman Gorin Sabatini et al., 2019).

As a modern martial art, Taekwondo relies heavily on kicks, especially Ap Chagi kicks, to strike the opponent's head or body quickly and accurately. One typical taekwondo kick is the ap chagi, which entails nearly straightening the front leg, then kicking the opponent's head or body quickly. This technique emphasizes speed, and strength. Ap Chagi is often used to attack opponents' heads, which usually results in the highest points in matches (Hariadi, 2016). To perform the ap chagi kick, athletes need good body balance and great leg muscle strength to produce a strong and effective kick. The speed of the chagi kick is influenced by various main factors, such as leg muscle strength, flexibility, balance, and the application of biomechanical techniques by athletes. The basic principle of taekwondo competition is to get points by defending and attacking. The most commonly used attack in matches is the ap chagi kick, because the ap chagi kick is an easy kick to do.

This is clearly seen because of the many taekwondo competitions held in the South Kalimantan region. In taekwondo competitions, there are two categories that are contested, namely, the fighting category and the art category. The match/fight category is a match between 2 (two) athletes from different angles, namely, red (chung) and blue (hong). The two compete using techniques of deflecting, dodging, and attacking predetermined targets. As well as relying on technique, tactics, endurance, and agility according to the rules to achieve the best performance.

However, when attacking opponents, often the attacks of senior athletes of Dojang Garuda Satria Banjarbaru City are less effective due to distance problems and inappropriate footsteps. Therefore, in order for the attack to be unobstructed, speed is key to ensuring that the attack is unobstructed, stable, and powerful.

Based on observations of senior athletes of Dojang Garuda Satria in Banjarbaru City, most of them rely on the chagi kick when competing. This kick is often used because in attacking difficult areas such as the opponent's head, it gives points quickly and effectively. Ap chagi is considered realistic and has maximum speed compared to other kicks. However, when doing ap chagi kicks, taekwondo athletes often fail because their feet are blocked by the opponent's body. This is due to the lack of speed when kicking the opponent. Due to the error factor that often occurs in taekwondo athletes when attacking with the ap chagi kick technique when attacking the opponent, the athlete's feet are not fast when attacking, the legs feel stiff, the back of the foot is not on target.

Research by Nopi Hariadi entitled Analysis of Ap Chagi Kick Movements in Junior Male Taekwondo in East Lombok Regency discusses the basic techniques of Ap Chagi kicks which emphasizes the importance of understanding biomechanics and repetitive technique training in determining the quality of effective Ap Chagi kicks (Hariadi, 2016).

The novelty of this research lies in the focus of the analysis of the kicking speed of Ap Chagi specifically on senior athletes of Dojang Garuda Satria in Banjarbaru City, which has been very limited in previous studies. Previous research generally discusses the basic techniques or biomechanical aspects of Ap Chagi at the junior level or in a more general population, whereas this study provides new contributions by measuring and analyzing the kicking speed of Ap Chagi using standardized measurement instruments on senior athlete groups at the local dojang level. The results of this study are expected to enrich the understanding of the factors influencing the kicking speed of Ap Chagi and to provide relevant empirical data for the development of special training programs for senior taekwondo athletes in Banjarbaru, thereby enhancing the effectiveness of kicking techniques in the context of actual competitions.

METHODS

(Sugiyono, 2021) research methods are scientific ways to obtain data with specific purpo-

ses and uses. This study employed a quantitative descriptive research strategy. Descriptive analysis is the process of analyzing data by describing it and then drawing conclusions from the data that has been collected (Nurunnisa, 2019).

In this research, we hope to find out the speed of the chagi ap kick. Therefore, the type of research used is quantitative descriptive with a survey method. The survey technique used is an experimental survey, which is to conduct tests with an ap chagi kick speed measuring device. Dojang Garuda Sari's senior taekwondo athletes in Banjarbaru City make up the study's population. The population in the study is the entire subject on which the researcher obtains information and becomes the basis for drawing conclusions (Amirudin & Abdillah, 2020). When sampling, the purposive sampling method is employed. The researchers in this study used the purposive sampling method, which involves determining samples using specific formulas (Sugiyono, 2021).

Data was collected through a test tool that has been identified and tested by the author to measure the speed of the chagi ap kick in senior athletes of Dojang Garuda Satria in Banjarbaru City. The measurement of the chagi kick speed was carried out by the chagi kick test on target for 15 seconds.

Research instruments are an essential tool for researchers in collecting data. The use of the right instruments will make the work of researchers easier and support the acquisition of accurate research results. The process of preparing instruments involves careful data collection, followed by good processing (Mahdiansyah et al., 2023). The tools used have a great influence on the success of a research, because the data obtained must answer research questions and be thorough using the tool. The instruments used in this study are:

Tools and Facilities

Target (a tool for kicking), Stopwatch, Stationery, Test form, Blank note-taking

Implementation

This test measures the ability of taekwondo to perform ap chagi kicks on target. Athletes are given 15 seconds to make as many kicks as possible, and the number of successful kicks will be a measure of their ability. The duration of 15 seconds was chosen because doing ap chagi kicks repeatedly quickly can cause fatigue and decrease the speed of the athlete. Preliminary observations show that athletes are able to perform ap chagi kicks at maximum speed for about 20 seconds. Therefore, a duration of 15 seconds is considered sufficient to measure the average ability of the 15 athletes tested.

Table 1. Assessment Norms

Category	Male	Female
Very good	>25	>20
Good	18-24	16-19
Enough	15-17	13-15
Less	10-15	10-12
Less than once	<10	<10

According to experts Fakhruddin, M.Pd (2025)

Percentage descriptive statistics are employed for data analysis in this study:

$$P = f/n \times 100 \%$$

P : Percentage

f : Frequent

n : Total Frequent

RESULTS AND DISCUSSION

Table 2. Percentage od ap chagi kick speed rating

Category	Frequency	Percentage
Very good	5	33%
Good	7	47%
Enough	3	20%
Less	0	0%
Less than once	0	0%
Total	15	100%

The speed of the ap chagi kick of the senior taekwondo athletes from Dojang Garuda Satria in Banjarbaru City was found to be very good for 5 (33% of the total), good for 7 (47% of the total), and adequate for 3 (20%), according to the aforementioned research.

This research focuses on the analysis of the speed of Ap Chagi's kick technique, which is one of the basic techniques in Taekwondo and has an important role in winning points in the kyorugi category matches. Ap chagi is a basic kicking technique introduced to beginners in taekwondo and is often used by athletes because it is easier to earn points and more effective during competitions.

In order to earn points in taekwondo matches, athletes need to be equipped with effective attacking and defensive techniques. The basic principle in taekwondo competitions is to earn points through attack and defense (Dailami & Jatmiko, 2018). In taekwondo matches, athletes have various attack techniques that can be used to defeat opponents such as Ap Chagi's kick technique, and Dhollyo Chagi. According to (Ermanto, 2016), the kick technique is an effort or process that is carried out using the legs, both

in defensive and attacking positions, with the aim of obtaining as many points as possible during the match. Meanwhile, (Hariadi, 2016) stated that one of the basic techniques of Taekwondo that must be mastered by a taekwondoin is the Ap Chagi kick, which is a kick towards the front that is done using the front foot pad (Ap Chuk) and the sole of the foot.

To increase a person's explosive power, there are various types of exercises that can be done. One of them is basic movement exercises or preparatory exercises, which are exercises that are performed repeatedly with the aim of combining the strength and speed of muscle contractions. Athletes can enhance their explosive power with this workout, which involves strengthening the leg muscles to resist and rapidly contracting them to do jumps. Having power allows an athlete to improve his physical abilities significantly, which in turn supports the mastery of techniques during the game, especially when making kicks in the sport of taekwondo (Ariansyah, 2017).

In addition, athletes must pay attention to other factors such as speed, because to do techniques to be on target, speed is required. Quickness in movement is what we mean when we talk about a body part's speed. The capacity to move quickly or with complete bodily movement is called speed (Wirama et al., 2020). Athletes can enhance their explosive power with this workout, which involves strengthening the leg muscles to resist and rapidly contracting them to do jumps. In addition to speed, leg muscle strength is also needed when making kicks. Muscle strength in the legs is one of the important components in sports, especially in Taekwondo. This can be seen from the position of the horse that is often used in Taekwondo, where the position requires the strength of the leg muscles to hold the weight. In addition to serving as support, leg muscle strength is also needed when athletes perform dodging movements or when kicking (Bambang Muhammad Arba'i et al., 2022).

Based on the results of field research on 15 senior athletes of Dojang Garuda Satria, it was found that the majority of athletes have achieved a kicking speed categorized as good at 47%, and very good at 33%, although there are also those who fall into the satisfactory category at 20%. This is due to the presence of senior athletes who diligently participate in taekwondo training and compete in various taekwondo competitions such as regional porprov, pomnas, kejurprov, and pre-pon, while those in the satisfactory category are due to senior athletes who rarely attend taekwondo training sessions, hence still falling into

the satisfactory category.

In Mastery of attack techniques and speed in taekwondo matches really helps senior athletes to be able to participate in the match well and get the necessary provisions to achieve maximum achievement. This success is important in training, as well as an opportunity to improve offensive techniques that are still lacking. It is clear from the study's findings that the kick speed of the senior athlete Dojang Garuda Satria in Banjarbaru City is in the category of very good, good, and sufficient. It can also be a motivation for the coach to continue to improve his strength and speed when attacking. In addition, the results of this study are expected to provide an overview for coaches in developing offensive techniques and strategies, so that Taekwondo athletes from Dojang Garuda Satria Banjarbaru City can perform optimally in every match.

CONCLUSION

Based on research conducted on 15 senior taekwondo athletes from Dojang Garuda Satria in Banjarbaru City, it can be concluded that the speed of the Ap Chagi kick of the athletes is generally categorized as good to very good, with details showing that 33% of the athletes are in the very good category, 47% in the good category, and 20% in the sufficient category. This result shows that the majority of athletes have adequate kicking speed skills to support their performance in matches, although there are still some athletes who need to improve their kicking speed. Factors influencing the variation in results include the level of activity in participating in training and competing. Therefore, it is recommended that all athletes, especially those still in the adequate category, increase the intensity and quality of their training regularly, while also paying attention to aspects of technique, lower limb muscle strength, and body flexibility. In addition, coaches are expected to provide a more specific and structured training program to optimize the speed of the Ap Chagi kick, so that athletes' performances can continue to improve and compete at higher levels.

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