

## HOW FAST ARE JUNIOR KARATEKA ATHLETES

Jeki Haryanto<sup>1</sup>, Padli<sup>2</sup>, Septri<sup>3</sup>, Donie<sup>4</sup>, M. Razaq Mukhlis<sup>5</sup>

Universitas Negeri Padang<sup>1,2,3,4,5</sup>  
Jekiharyanto@fik.unp.ac.id

### Abstract

*The low speed of karate athletes is a problem that must be addressed immediately. Speed is very important for karate athletes so that they can do attacks and dodge quickly. In the real match, the karateka will perform their all ability including strikes using their foot. The striking speed is important to get a good point for winning in a big competition. This study aims to determine the general speed level of West Sumatra junior karate athletes. Survey research was conducted to see how the speed level of the West Sumatran junior karate athletes who will compete in the national championship is described. The population in this study was all junior karate athletes, totaling 20 people. The sampling technique in this study used a census technique so that the entire population was used as a sample. The athlete's speed data was obtained by using the stair step test. After the athlete's speed data were obtained, the data were analyzed using descriptive statistics. The results of this study indicate that the level of speed possessed by West Sumatran junior karate athletes is in a sufficient category. So that the coaches and administrators are expected to be able to provide speed training in the future to optimize karateka athlete performance.*

**Keywords:** Speed; Karateka female Athlete.

Submitted : 28<sup>th</sup> of June 2022  
Accepted : 27<sup>th</sup> of July 2022  
Published : 28<sup>th</sup> of July 2022

Correspondence Author: Jeki Haryanto, Universitas Negeri Padang, Indonesia. E-Mail: [Jekiharyanto@fik.unp.ac.id](mailto:Jekiharyanto@fik.unp.ac.id)

DOI <http://dx.doi.org/10.31851/hon.v5i2.8462> 



Jurnal Laman Olahraga Nusantara licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/)

## INTRODUCTION

Sport is an activity that is mostly done by the community, its existence is no longer underestimated by the community. Sports that are developing in Indonesia are not only sports for fitness but also sports for achievement development. This is evidenced by the many emerging fitness centers and sports associations in Indonesia and especially in the regions. Achievement sports in Indonesia today are not like achievement sports a few years ago, where achievements bring the name of the region and even countries at the National and

International levels cannot get proper attention and appreciation from the government, so people are less interested and even still not have a desire to do physical activity if it is continued and directed by the path will definitely become an athlete (Utomo & Wulandari, 2017). The history of karate in Indonesia was brought by Indonesian students who had returned from Japan after completing their education. In 1963 Indonesian students consisting of Baud AD Adikusumo, Karianto Djojonegoro, Mochtar Ruskan and Ottoman Noh, they united to establish a Dojo in Jakarta and introduced karate (Shoto-kan school) in Indonesia under the name of Persatuan Olahraga Karate Indonesia (PORKI) which was inaugurated on March 10 1964 in Jakarta (Tiara & Sulistyarto, 2020)

Karate is also an achievement sport that is competed at both national and international levels. The current development of karate is very good, so it is hoped that more people will contribute, both in developing, evaluating and improving from all supporting sectors in order to produce more accomplished athletes. In the karate martial arts branch, the kata and kumite numbers are contested. There are several basic techniques called kihon, namely basic movement techniques in the form of hitting, kicking, and parrying. This basic technique can be used or applied in a match (kumite), or a one-on-one fight. Kick is also one of the techniques used to earn points in the match. There are several types of kicks in karate, one of the most frequently used kicks during kumite to gain points is the Mawashi Geri kick (Simbolon & Siahaan, 2020). The Covid pandemic has constrained everybody to rehearse social removal or hole up at home. The most apparent effect is diminished actual work for everybody, including sports activists, which can set off detraining. Detraining is a decrease in practice proportions that can prompt a diminishing in different components of actual wellness required while working out (Sasetiono et al., 2020).

Karate is quite possibly of the most well-known martial art in Indonesia. By learning karate, someone can further develop social and profound control abilities and diminish social brokenness (Greco & de Ronzi, 2020). Achievement sports are sports activities that are carried out and managed professionally

intending to obtain optimal performance. And karate is one of the many achievement sports that are currently popular in Indonesia. Karate is a martial art from Japan that in its activities always requires a movement of punches, kicks, parries, dings, and agility, with power in both Kata and Kumite.

Therefore, for a movement to run optimally, the condition factor and physical exercise are one of the supporting aspects (Pratama, 2016). Karate is a martial art that evolves with the times and evolves in its functions. Currently karate has been used as a means of competition with two tournaments namely kumite and kata. With its rapid development, karate has become one of the achievements of sports that has produced athletes who have made the nation proud (Wiranti, 2012). A sequence of training procedures that are carried out consistently lead to high achievement. A planned training program will not result in athletes' achieving their maximum potential if it is not supported by talented athletes in particular sports (Ratno & Nidyatama, 2019).

Sports coaching and development is an effort to improve the quality of Indonesia's human resources through physical, mental, and spiritual health of the community and is shown to form disciplined character and personality and high sportsmanship. Efforts to improve sports performance need to be carried out continuously. Sports coaching consists of three layers, namely marketing, breeding, and achievement coaching. Achievement is the goal of sports coaching and development in Indonesia. Karate is a special method of self-defense through the use of well-trained and natural limbs that are based on and aimed at the values of eastern philosophy.

The sport of karate in the world is shaded by an organization called the World Karate Federation (WKF). Karate in Indonesia is sheltered by an organization called Federasi Olahraga Karate-Do Indonesia (FORKI). FORKI's goal is to develop karate-do as an art sport, as well as the science of self-defense to cultivate a noble and open personality for every Indonesian citizen (Firmanyah Syah & Aziz Hakim, 2020)

Speed is one aspect of the skills needed in the branch of certain sports. Speed is the ability to perform movements that kind in a row in time short, or the ability to cover a distance in time the shortest (Pranata et al., 2017). Speed in karate is an important element of physical conditioning. Several previous studies have been carried out to look at this problem, including an evaluation of the general physical condition of karate athletes and the result is the athlete in a good condition (Wibisana et al., 2016), the correlation between hand muscle power and speed of kicking (Wanda et al., 2018), the relationship between body weight and leg length with kick speed (Bagia, 2016), the relationship between arm length and arm muscle strength to kick speed (Ruskin & Liputo, 2021). Correlation between speed dan flexibility with kick skill (Abdussama et al., 2021). Differences in the effect of double leg bound exercises and alternate leg bound exercises on the kick speed of maegeri chudan and the power of leg muscles (Haris et al., 2016). From several studies that have been conducted, none have discussed the general physical condition of athletes concerning speed in general.

## METHOD

The quantitative approach is used in this research to reveal the data on karateka speed and the method used in this study is descriptive. The purpose of this method is to obtain the karateka speed so that they will know about their ability (Soniawan *et al.*, 2022). The data was collected using a step stair test to obtain the karateka athlete's speed and then all of the female junior karate athletes do the test. The amount of the sample in this study were 20 karateka junior athlete in West Sumatera. The sampling technique was sensus which means all of the population will be the sample. This research was conducted at Agus Salim Sports Center, Padang City, West Sumatra. After the athlete's speed data were obtained, the data were analyzed using descriptive statistics to reveal the frequency and the percentage of the speed of karateka data (Nonoyama *et al.*, 2016; Useche *et al.*, 2019).

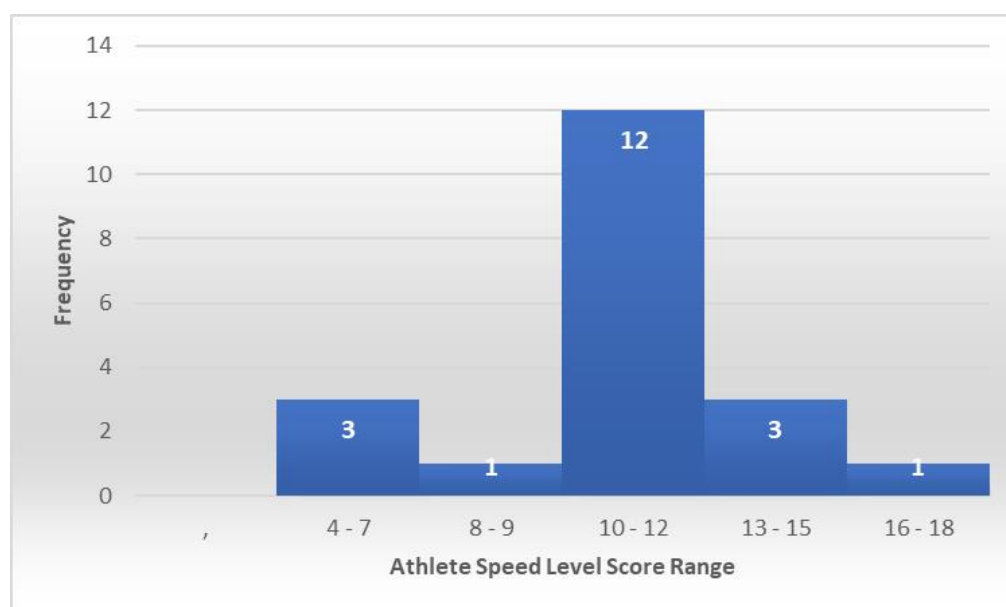
## RESULT AND DISCUSSION

After the data is collected, the athlete's speed level data is analyzed. The results of this research data analysis can be seen in Table 1 below:

**Table 1.** The Speed Level of West Sumatra Female Junior Karate Athletes

Score Range	Frequency	Percentage %	Category
$x \leq 7$	3	15	Veri low
$7 > x \leq 9$	1	5	Low
$9 > x \leq 12$	12	60	Sufficient
$12 > x \leq 15$	3	15	Hight
$15 >$	1	5	Very hight
	20	100	

In general (60%) the speed level of athletes is in the medium category. The lowest speed score in this research is 4 while the highest score is 18. The average speed of karate athletes is 11 which is also in the medium category.



**Figure 1.** Histogram of the Speed Level of the West Sumatran Female Junior Karate Athletes

The results of the study revealed that the level of speed possessed by female junior karate athletes in West Sumatra was in the medium category, this is

following the results of research obtained by (Ziqra & Welis, 2019). In this study, the speed level of male karate athletes was classified in the good category but female athletes their speed level was still in the medium category. Speed is important, in karate matches, if athletes do not have good speed it will be difficult to attack opponents as well as when defending it will be difficult to dodge attacks given by opponents, therefore coaches need to train the element of speed to get victory during the match.

Variation of body drops is a form of exercise that can be done by coaches to their athletes so that the speed in making strokes can increase. During the match, athletes will use a lot of punches, both using their feet and using their hands. (Purba, 2016). The practice of hitting using rubber weights affects increasing the average speed of hitting in karate. The effect is caused by the hitting stimulus given by the rubber load is potential enough to make changes physiological and anatomical changes in muscle tone. Physiological and anatomical changes affect physical potential, especially hitting speed. In the exercise of hitting using a rubber weight, the results of the analysis were very significant and there were greater physiological changes compared to the exercise of hitting without a rubber weight. The results of the analysis show that there is an effect as a result of the treatment given (Same, 2021).

Speed is one of the elements in physics. Speed is the ability of a muscle reaction which is characterized by a change between contraction and relaxation to reach the maximum frequency. Hitting in karate must have good speed because, with a faster stroke, it is a very decisive factor to get points/values (Manullang et al., 2014). Success in karate sports achievement and athlete maturity is strongly influenced by the dominant physical condition component which is good and accompanied by sufficient training intensity so that it can support and improve optimal results in the branch/field of sport that is occupied. In addition, success in karate sports achievements is also influenced by overall good technical mastery in the sport and adequate rest so that the body condition remains optimal. The main purpose of achievement sports is to improve the skills and abilities that athletes

have unconsciously in the form of developing sports achievements, therefore to achieve these goals, there are several aspects of training that need to be trained carefully, namely physical, technical, tactical and mental exercises that are based on training principles that have proven benefits based on research results and experience in coaching in the training ground. In addition, the existence of tests or measurements also helps to find out the drawbacks of individual and group performances.

## CONCLUSION

Based on the results of research and data processing as mentioned in the results of the study, it can be concluded that the level of speed possessed by female karate athletes in West Sumatra is sufficient. This of course should be a concern for FORKI administrators and coaches to be improved by providing speed training so that the athlete's speed can increase in the future.

## REFERENCES

- Abdussama, W., Aimang, H., & Bakar, A. (2021). Hubungan kelentukandan kecepatan dengan tendangan mawashi geri pada atlet karate kabupaten banggai. *Babasal Sport Education Journal*, 1(2). <http://doi.org/>
- Bagia, I. M. (2016). Korelasi berat badan dan panjang tungkai terhadap kecepatan tendangan karate mawashi geri jodan siswa SMP negeri 11 Denpasar. *Jurnal Pendidikan Kesehatan Rekreasi*, 2.
- Firmanyah Syah, M., & Aziz Hakim, A. (2020). Perbandingan hasil kondisi fisik kecepatan dan tinggi lompatan perguruan karate inkanas dan perguruan karate inkai atlet putra kota pasuruan usia 16-19 tahun. *Jurnal Kesehatan Olahraga*, 8(1), 33–40.
- Greco, G., & de Ronzi, R. (2020). Effect of karate training on social, emotional, and executive functioning in children with autism spectrum disorder. *Journal of Physical Education and Sport*, 20(4), 1637–1645. <https://doi.org/10.7752/jpes.2020.04223>
- Haris, T. M., Sebayang, E. N., & Sinulingga, A. (2016). Perbedaan pengaruh latihan double leg bound dan latihan alternate leg bound terhadap kecepatan tendangan maegeri chudan dan power otot tungkai pada atlet putra umur 14 –16. *Jurnal Pedagogik Keolahragaan*, 2(1), 56–76.
- Nonoyama, T. *et al.* (2016) ‘Descriptive study of dental injury incurred by junior

- high school and high school students during participation in school sports clubs', *International Dental Journal*, 66(6), pp. 356–365. Available at: <https://doi.org/10.1111/idj.12250>.
- Pranata, L. D., Yarmani, & Sugihartono, T. (2017). Pengaruh latihan beban gaya-pegas karet ban terhadap kecepatan pukulan kumite gyaku tzuki untuk atlet karate inkanas. *KINESTETIK :Jurnal Ilmiah Pendidikan Jasmani*, 1(2), 106–110.
- Pratama, A. (2016). Analisis kemampuan VO2 max pada atlet karate ranting permata Sidoarjo. *Jurnal Kesehatan Olahraga*, 06, 575–581.
- Ratno, P., & Nidyatama, N. (2019). Analisis hasil talent scouting DISPORA Kota Medan cabang olahraga karate pada calon atlet PPLTD Kota Medan. *Sains Olahraga : Jurnal Ilmiah Ilmu Keolahragaan*, 3(1), 45–54. <http://jurnal.unimed.ac.id/2012/index.php/so>
- Ruskin, & Liputo, N. (2021). Hubungan panjang lengan dan kekuatan otot lengan dengan kecepatan pukulan gyaku tsuki. *Jambura Journal of Sports Coaching*, 3(2), 60–67.
- Sasetiono, J. E., Andiana, O., & Abdullah, A. (2020). Hubungan antara detraining selama pandemi covid-19 dengan kemampuan kecepatan reaksi atlet ukm karate universitas negeri malang. *Jurnal Sport Science*, 94–99.
- Simbolon, R. F., & Siahaan, D. (2020). Pengembangan instrumen tes kecepatan tendangan mawashi geri pada cabang olahraga karate. *Jurnal Prestasi*, 4(2), 49–54. <https://jurnal.unimed.ac.id/2012/index.php/jpsi/index>
- Soniawan, V. *et al.* (2022) 'The Football Passing Technique Skills', *Halaman Olahraga Nusantara (Jurnal Ilmu Keolahragaan)*, 5(1), p. 80. Available at: <https://doi.org/10.31851/hon.v5i1.6503>.
- Tiara, A. A. T. T., & Sulistyarto, S. (2020). Tingkat kondisi fisik atlet karate under-senior puslatda Jatim dengan dojo SMA Negeri 1 Kandat Kabupaten Kediri. *Jurnal Kesehatan Olahraga*, 10(1), 27–34.
- Useche, S.A. *et al.* (2019) 'Healthy but risky: A descriptive study on cyclists' encouraging and discouraging factors for using bicycles, habits and safety outcomes', *Transportation Research Part F: Traffic Psychology and Behaviour*, 62, pp. 587–598. Available at: <https://doi.org/10.1016/j.trf.2019.02.014>.
- Utomo, A. W. M., & Wulandari, F. Y. (2017). *Hubungan antara kekuatan otot tungkai, perut dan lengan terhadap kecepatan pukulan gyaku tsuki*.
- Wanda, D. F., Nurseto, F., & Husin, S. (2018). Kontribusi power tungkai dan kecepatan reaksi terhadap tendangan mae geri pada atlet karate putri. *Jurnal Olahraga Prestasi*, 14(2), 178–193.



- Wibisana, F., Rinaldy, A., & Nusufi, M. (2016). Evaluasi kondisi fisik dominan pada atlet karate-do dojo lanal inkai kota sabang tahun 2015. *Jurnal Ilmiah Mahasiswa Pendidikan Jasmani, Kesehatan, Dan Rekreasi*, 2(1), 82–89.
- Wiranti, Y. (2012). Analisis kondisi fisik atlet hatary karate club di Kabupaten Sidoarjo. *E-Journal UNESA*, 01(1), 0–216.