10 (3) (2021) 131 - 135

Journal of Physical Education, Sport, Health and Recreations

http://journal.unnes.ac.id/sju/index.php/peshr

The Effect of Tachiwaza on Motor Ability Improvement in Judo

Ira Purnamasari[1]✉, Mona Fiametta Febrianty[2], Geraldi Novian[3]

Study Program of Sport Coaching Education, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, West Java, Indonesia[13]
Study Program of Sport Physical Coaching, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, West Java, Indonesia[2]

Article History

Received November 2021
Accepted November 2021
Published Vol.10 No.(3) 2021

Keywords:
Athletes; Judo; Motor Ability; Tachiwaza.

Abstract

Giving basic judo moves in the form of Tachiwaza contributes to the overall development and coordination of the body. The provision of Tachiwaza material is intended so that the habit of exercising throughout life can be prepared early, so that children have fundamental basic movements that are useful for them throughout life. . Movement ability or also called motor ability is the ability to move in physical activity. This study aims to determine the effect of tachiwaza on increasing motor ability in Judo. This study used an experimental method using a sample of 12 children aged 6 to 12 years who took part in training in one of the training classes at the Judo club in Bandung. The sampling technique used is total sampling. The instrument used is a motor ability test, which consists of agility test with a 4x10 m shuttle run, a coordination test by throwing and catching a tennis ball with a distance of 1 meter from a wall, a balance test using a positional balance test, 4. Speed test with the 30 meter sprint test. The result of this research is the data is normally distributed. From the data obtained and calculated using SPSS the results obtained are Tachiwaza training affects the increase in motor ability. This research can contribute that tachiwaza exercises can be used as an alternative exercise to improve children's motor abilities at the age of 6 to 12 years.

How to Cite

Purnamasari., I, Et al. (2021). The Effect of Tachiwaza on Motor Ability Improvement in Judo. *Journal of Physical Education, Sport, Health and Recreation,* 10 (3), 131-135.

✉ **Correspondence address :**
E-mail: irapurnamasari@upi.edu

p-ISSN 2460-724X
e-ISSN 2252-6773

INTRODUCTION

The sport of Judo which is currently worldwide was first introduced in 1882 by Jigoro Kano, he started teaching Judo on the grounds of Eishoji Temple in the Kita Inari-cho district of Tokyo. Jigoro Kano began to study ancient Japanese martial art, namely, jujutsu then developed a new technique and teaching system which he called Judo. The concept is that Judo provides a (spiritual) "path" which in turn leads to a (physical) "technique".

Jigoro Kano stated that Judo is not just a martial art. Judo contains a philosophy that is based on the concepts of respect that begin at the start of the practice and also ends at the end of the practice. Judo contains the values of discipline and spiritual values. Judo must also contain elements of manners, beautiful art, big spirit, sportsmanship, and mutual respect (Berliana et al., 2021). Jiogoro Kano said the purpose of Judo is to strengthen the body by practicing attack and defense, to complete the personality by training the mind, and finally to devote themselves to society, because of that many people are fond of Judo around the world, and this is one of the reasons Judo is officially an Olympic sport.

Techniques in judo are divided into three main parts, namely nage waza (throwing technique), katame waza (wrestling technique), and atemi waza (vital point hitting technique). Nagewaza has the aim of balancing the opponent's posture and dropping the opponent to the mat or tatami. The main divisions in Nagewaza are Tachi Waza or standing techniques and Sutemi Waza or dropping techniques. Tachi waza is further divided into 3 groups of techniques, namely te waza or hand techniques, Koshi waza or hip techniques, and ashi waza or foot techniques. In the Sutemi Waza group, they are divided into groups: Ma Sutemi Waza or the technique of dropping forward and the group of yoko Sutemi waza or the technique of dropping to the side. The main body components used in judo techniques are the hands, hips, and feet, but the use of the name of the technique in Judo is taken from the body part or action that is the center of the movement when slamming. The term used in Judo for the person who performs the movement or technique of judo is tori while the person who receives it or his partner is referred to as uke. Tachi waza or techniques performed with a standing posture are a group of techniques that are widely used by judo during matches. Tachiwaza" (Standing Technique) is performed from a standing posture and refers to Nage waza (Throwing Technique) which includes Te waza (Hand Technique), Ashi waza (Leg/Leg Technique), and Koshi waza (Hip Technique).

Concerning the techniques mentioned earlier, at least judo athletes must have good motor abilities. Motor ability is a person's general ability to move, more specifically regarding the understanding of motor ability is a person's capacity to get various movements that require sports courage (Nurhasan, 2013). Various movements require the ability to move and the courage to exercise can make individuals able to perform movements repeatedly. Motor ability is the capacity of a person related to the implementation and demonstration of a skill that is relatively inherent after childhood (Lutan, 1988). The components of motor ability are speed, power, agility, eye and hand coordination, and balance. Mastery of every basic skill and basic technique is closely related to many supporting factors. This can underlie that individuals who have a good basic level of movement can perform a good movement or skill.

Good basic movement abilities according to growth and development will affect the body. Basic movement abilities are divided into 3 categories, namely locomotor, non-locomotor, and manipulative abilities. The movement experience factor during the growth period has a major influence on the development of basic movement skills until the achievement of well-coordinated movement skills. Good movement ability in an athlete or an individual will greatly support the development of basic technical skills in the sport he is engaged in. Therefore, the ability to move is needed in the development of sports talent.

In everyday life, activities carried out by humans include locomotor, non-locomotor, and manipulative movements, this also applies to sports activities, including Judo. When performing the movements of the Judo technique, it contains elements of locomotor, non-locomotor, and manipulative movements. The definition of locomotor movement is the movement of moving the body from one place to another (Yudanto, 2011). Walking, running, climbing, jumping, tiptoeing, jumping, crawling are forms of locomotor movement. The locomotor movement can move horizontally as well as vertically. The definition of non-locomotor motion is a movement that is carried out in a place without any space for movement (Hidayat, 2017). The form of movement of non-locomotor motion is stretching and bending, bouncing, swinging and other movements that do not require space to move. The definition of manipulative movement is a movement that is developed when children master various kinds of

objects (Hidayat, 2017). The ability of manipulative motion involves a lot of movement of the hands and feet but does not rule out the possibility of involving other body parts as well. Pushing movements (throwing, hitting, and kicking), receiving movements (catching) the movement of dribbling the ball, and bouncing the ball, are examples of forms of manipulative movements (Saputra, 2007).

METHODS

This study uses experimental research with a one-group pretest-posttest design (Fraenkel et al., 2012). The experiment given to the sample was in the form of tachi waza exercises that were guided directly by the experts. The population used in this study were judo athletes aged 6 to 12 years who practiced in one of the training classes at a judo club in Bandung. The sampling technique used is total sampling. This research was carried out for 16 x meetings, held on Mondays and Thursdays. The instrument used is a motor ability test (Alfiani & Hartoto, 2015; Nurhasan, 2013), which consists of an agility test with a 4x10 m shuttle run, a coordination test by throwing and catching a tennis ball with a distance of 1 meter from the wall, a balance test with a standing stroke positional balance test, and speed test with 30-meter sprint test. After the data was obtained, the data were processed and analyzed with SPSS Version 24 using the t test (Santoso, 2017).

RESULTS AND DISCUSSION

The results of the study are presented in **Table 1** form.

Table 1. Statistical Descriptive

Component	Min.	Max.	Mean	Std. Dev.
Pre-test	7.11	57.02	21.47	18.01
Agility	9.81	13.56	11.34	1.17
Coordination	12.00	17.00	14.46	1.61
Balance	48.96	57.02	51.99	2.50
Speed	7.11	8.86	8.10	0.57
Post-test	6.82	59.12	22.19	18.57
Agility	9.52	13.12	11.13	1.15
Coordination	13.00	18.00	16.31	1.60
Balance	50.11	59.12	53.48	2.83
Speed	6.82	8.52	7.85	0.54

Based on **Table 1**, it can be seen that all components of motor ability have increased from pretest to posttest.

Table 2. Normality Testing

Component		Statistic	Sig.	Information
Pre-test	Agility	0,948	0,565	Normal
	Coordination	0,937	0,417	Normal
	Balance	0,935	0,398	Normal
	Speed	0,950	0,592	Normal
Post-test	Agility	0,957	0,708	Normal
	Coordination	0,892	0,103	Normal
	Balance	0,934	0,386	Normal
	Speed	0,927	0,308	Normal

Table 2 shows the results of the normality test using the Shapiro-Wilk Test. All data has a Sig value. > 0.05 so that all data are declared normally distributed.

Table 3. Hypothesis Testing

	t Score	Sig. (2-tailed)	Information
Pretest-Posttest	4,758	0,000	H0 Rejected

Table 3 shows the results of hypothesis testing using the Paired Samples Test. Obtained the value of Sig. (2-tailed) of 0.000 <0.05 so that H0 is rejected, it can be concluded that there is an effect of Tachiwaza training on increasing motor skills in Judo. The percentages are presented in **Figure 1**.

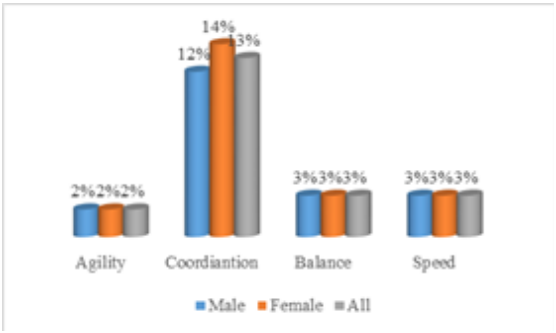

Figure 1. Percentage of Improvement in Pre- and Post-Test Results

Figure 1 shows the percentage of motor ability results from pretest to posttest. It can be seen that the sample has increased significantly.

At the age of 6 years, children can learn highly, because at this time, children have a very

high curiosity, therefore development in children must be optimized (Burhaein, 2017). Children at the age of 6 years are in a period of growth, at this time children need physical activity because at this age children will experience an increase in height and weight. Physical activity can be done indoors or outdoors. The child's motor has begun to develop, the child can perform movements such as jumping, jumping, and running. Locomotor movements, non-locomotor movements, and manipulation movements have been mastered by children aged 6 years (de Waal, 2019). As the child's age grows, the child's physical abilities will develop more and more.

At this stage the movement that must be given to children is a movement that is fun for children, this is done so that children are interested in physical activity. Along with the age of the child, the movements that are mastered will also develop, such as the movement of the hand and eye coordination which begins to increase. In children aged 8 to 9 years, children have started to do more complex physical activities, such as being given activities that contain games (Flook et al., 2010). In the age period of 10 to 11 years, children begin to move towards more emphasis on sports skills, because this period is a transition period. In the last period of elementary school age, namely at the age of 12 years, movement skills have begun to be improved by involving large muscles, besides that, they have also started doing sports activities according to the interests and talents of the children. Physical activity, i.e., step counts, PE class and sex were associated with specific cognitive outcomes (Drozdowska et al., 2021).

This study, which involved a sample of elementary school-age children, namely children aged 6 to 12 years, with the characteristics that have been discussed in the discussion above, is following the research that has been carried out, that children take part in judo training with Tachi Waza training treatment, following the demands of physical activity that must be developed in elementary school-age children. Judo is a sport that involves large muscles and small muscles. When children do Tachi Waza exercises, children will be taught how to push, pull, slam, and drop opponents (Miarka et al., 2020). These movements are movements that are included in locomotor, non-locomotor, and manipulative movements. In line with research that has been done previously that physical activity carried out by children will affect motor abilities (Ilham & Sepdanius, 2020). Based on the data processing and analysis that has been done, this study shows that the results of the experimental treatment of Tachi Waza exercise on elementary school-age judo for 16 meetings showed a significantly increased number. The motor abilities possessed by children will affect the movement skills they have. The movement ability of each child will be different, therefore motor ability becomes one of the references for children in learning a skill.

CONCLUSION

Based on the research that has been done, the authors can conclude that Judo training in the form of Tachiwaza can improve children's motor skills. Tachiwaza exercises can be used as an alternative exercise to improve children's motor skills at the age of 6 to 12 years, in addition to the usual forms of exercise.

REFERENCES

Alfiani, A. P., & Hartoto, S. (2015). Pengukuran Kemampuan Motorik Siswa Sekolah Dasar Negeri Tahun Ajaran 2014 – 2015 (Studi pada Siswa Kelas III dan IV SDN Sidokare II Sidoarjo) Alno Putri Alfiani Setiyo Hartoto. Jurnal Pendidikan Olahraga Dan Kesehatan, 04(02), 407–411. http://ejournal.unesa.ac.id/index.php/jurnal-pendidikan-jasmani/issue/archive

Berliana, Purnamasari, I., & Novian, G. (2021). Socia-Cultural Development in Judo Athletes. Kinestetik : Jurnal Ilmiah Pendidikan Jasmani, 5(12), 447–456. https://doi.org/10.33369/jk.v5i3.16170

Burhaein, E. (2017). Aktivitas Fisik Olahraga untuk Pertumbuhan dan Perkembangan Siswa SD. Indonesian Journal of Primary Education, 1(1), 51–58.

de Waal, E. (2019). Fundamental Movement Skills and Academic Performance of 5- to 6-Year-Old Preschoolers. Early Childhood Education Journal, 47(4), 455–464. https://doi.org/10.1007/s10643-019-00936-6

Drozdowska, A., Michael Falkenstein, Jendrusch, G., Platen, P., Lücke, T., Kersting, M., & Sinningen, K. (2021). Interrelations of Physical Fitness and Cognitive Functions in German Schoolchildren. Children, 8(669), 1–15. https://doi.org/10.3390/ children8080669

Flook, L., Smalley, S. L., Kitil, M. J., Galla, B. M., Kaiser-Greenland, S., Locke, J., Ishijima, E., & Kasari, C. (2010). Effects of Mindful Awareness Practices on Executive Functions in Elementary School Children. Journal of Applied School Psychology, 26(1), 70–95. https://doi.org/10.1080/15377900903379125

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to Design and Evaluate Research in Education (8th Ed.). Mc Graw Hill.

Hidayat, A. (2017). Peningkatan Aktivitas Gerak Lokomotor, Nonlokomotor Dan Manipulatif Menggunakan Model Permainan Pada Siswa Sekolah Dasar. Jurnal Pendidikan Jasmani Dan Olahraga, 2(2), 21. https://doi.org/10.17509/jpjo.v2i2.8175

Ilham, T., & Sepdanius, E. (2020). Pengaruh Latihan Aktivitas Fisik Terhadap Kemampuan Mototrik Kasar Siswa Kelas V SDN 09 PPA Kota Solok. Jurnal Stamina, 3(6). https://doi.org/https://doi.org/10.24036/jst.v3i6.523

Lutan, R. (1988). Belajar Keterampilan Motorik, Pengantar Teori dan Metode. Dirjen Dikti-Depdikbud.

Miarka, B., Pérez, D. I. V., Aedo-Muñoz, E., da Costa, L. O. F., & Brito, C. J. (2020). Technical-Tactical Behaviors Analysis of Male and Female Judo Cadets' Combats. Frontiers in Psychology, 11(June), 1–7. https://doi.org/10.3389/fpsyg.2020.01389

Nurhasan. (2013). Modul Tes dan Pengukuran Keolahragaan. FPOK UPI.

Santoso, S. (2017). Complete Guide to Mastering Statistics with SPSS 24. PT. Elex Media Komputindo.

Saputra, M. Y. (2007). Pembelajaran Atletik di Sekolah Dasar. Kencana.

Yudanto. (2011). Implementasi Pendekatan Taktik Dalam Pembelajaran Invasion Games di Sekolah Dasar. Fakultas Ilmu Keolahragaan Universitas Negeri Yogyakarta.