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The Effect of Hanging Ball Exercises on the Ability of Smash Takraw

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Abstract

This research is motivated by the lack of variety of training in doing the kedeng smash and the difficulty of starting the jump in taking a body position to do the kedeng smash when picking up the ball while it is above the net so that the ball goes out of line and gets stuck in the net. This study aims to determine whether or not there is an effect of hanging ball training on the ability to smash kedeng in Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo. This research is experimental. The research design used is one group pre-test post test design, wherein this study, there is no comparison group. The population used in this study were 31 students of Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo. The sampling technique used purposive sampling so that the sample was 20 students. The instrument used is using the smash kedeng skill test. Data analysis in this study used the t-test, namely by comparing the pre-test results with the posttest in the experimental group. The results showed that there was an effect of hanging ball exercise on the ability to smash kedeng. The results can be concluded that there is a significant effect of depending ball training on the ability to smash kedeng.

Keyword: *Hanging Ball, Smash, Takraw*

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INTRODUCTION

Exercise is an essential factor that must be done systematically and programmed to achieve high performance (Mylsidayu and Kurniawan 2015) (Suharjana 2013). Aspects that support the achievement of Takraw, both physical, technical, tactical, and mental, must be improved. As the first step in Takraw training, it is the basic technique of playing Takraw.

Techniques in playing Takraw vary widely. The basic skills of the Takraw game include (1) silage, (2) head-to-head, (3) pressing, (4) grasping (5) hand in hand (Hardinoto, Syah, and Sitepu 2017) (Syam 2019). Each technique has a vital role in the game of Takraw. In addition to the basic methods in the game of Takraw, a player must have exceptional skills consisting of kicking (service), receiving kicks, passing, smashing, blocking (holding).

One of the essential techniques in the game of Takraw is the smash. Smash is one of the unique skill techniques of the Takraw game. Smash is a series of dynamic and complex movements to generate numbers in the match Takraw. There are several kinds of smashes

in the game of Takraw, including roll smash (salto), scissors smash, foot smash, kedeng smash (Yarmani, Syafrial, and Arwin 2020) (Heriansyah and Suhartiwi 2021).

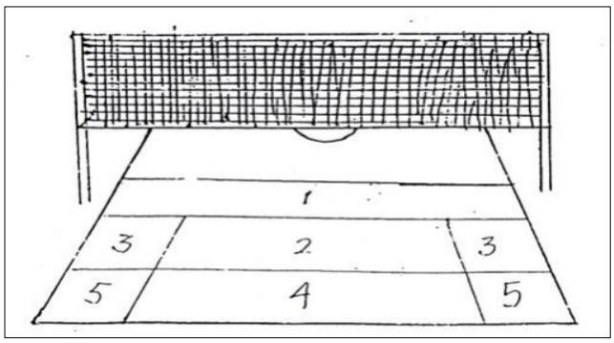
The kedeng smash is a smash that is done using the feet, for that players flanking the left and right flanks which have many opportunities to smash, in attacking opponents need to be adequately trained to have good smash skills or abilities. Smash kedeng is carried out by players when the ball is on the edge of the net by swinging the legs above the head with a horse kick directed into the opponent's area. The ability to smash kedeng is closely related to maturity and frequency of practice (Bastia and Atiq 2020) (Jufrianis et al. 2021). This means to get a good kedeng smash technique. Students must practice intensively and be programmed.

Based on the results of observations from the authors during the Takraw lecture, the authors found that in doing the kedeng smash, students lacked the ability or good smash skills. The results of the smash made by students did not lead nicely to the opponent's area. The author took the initiative to do a programmed exercise outside of class hours to improve the ability to smash kedeng by using a hanging ball released when kicked.

The hanging ball exercise in Takraw itself is to take a three-step run so that you can jump with your dominant foot, then swing your arms and legs that lead upwards to help increase height, keep your body upright during takeoff and straighten your jumping leg as hard as possible. When doing the kick, keep paying attention to the three-step stance and supporting with one foot. The distance from the pedestal to the vertical line of the ball hanging is one meter marked on the boundary line of the pedestal for each ball hanging. Landing with both feet together slightly squat body position, knees slightly bent, and hands by the side of the body (Pernandes and Sutisyana 2018).

METHOD

This study uses an experimental method with a Group Pretest-Posttest Design (Ramadan & Juniarti, 2020). The population in this study were 31 students of Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo who took the Takraw course. The research sample was taken using the Purposive Sampling method with the characteristics of the male sex, active students, and willingness to take part in training using a hanging ball. The sample consisted of 20 students. The research instruments are as follows:



Picture 1. Instrument Ability Takraw (Thamrin 2008)

Data collection techniques are carried out as follows:

- The testes were collected and explained the implementation of the test to be carried out, then warmed up for 15 minutes.
- Testes are called one by one according to their order to enter the Takraw field.
- The tester gives the signal "start," then the teste performs a loud smash in front of the net by throwing the ball or hurling it himself.
- Each tester smashes ten times in 3 attempts of the kedeng smash, directed to the space marked with numbers (values). Testi break time is while waiting for their turn to smash on the next try.
- The tester records the score and takes the highest score of 10, smashing kedeng in 3 attempts.

The data analysis used in this research is the t-test (t-test) analysis. To get good results, it is necessary to test for normality. Besides being normal, it must also be homogeneous. Samples that come from one population and are estimated to be the same are not necessarily the case. If two or more samples are examined with specific techniques and are homogeneous, it can be said that the samples originate from the same population.

RESULTS AND DISCUSSION

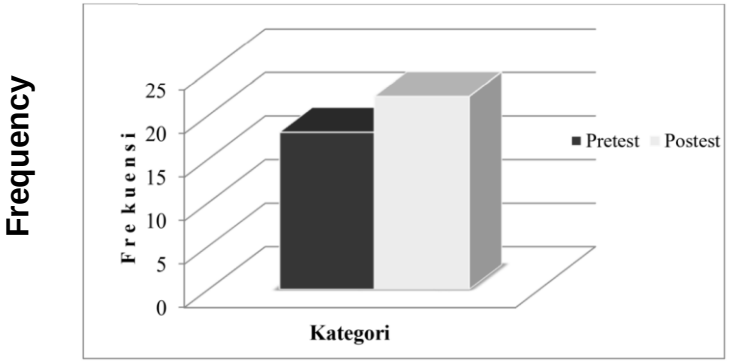
Results

The results of the study were described using descriptive statistical analysis as follows:

Table 1 Descriptive statistics

Statistics	Pre-test	Posttest
Minimum Value	13.00	16.00
Maximum Value	27.00	32.00
Average	18.05	22.15
Median	17.50	22.00
Mode	17.00	22.00
Std. Deviation	3.170	3.675

The results of the pretest and posttest are shown by the following diagram:



Picture 2. Pretest Posttest Bar Chart

The results of the normality test are shown in the following table:

Category

Table 2 Normality Test

Group	Kai Square		Sig.	Description
	X^2 Count	Df		
Pre-test	12.000	9	213	Normal
Posttest	4.000	10	678	Normal

Based on the table above, it can be seen that the pre-test and posttest data of the two data groups have a significant value greater than 0.05 (effective> 0.05). The two groups of data are typically distributed. From the other side, it can be seen on the significant value because all of the essential values are greater than 0.05 (Significant > 0.05). The hypothesis which states that the data is usually distributed is accepted. Thus it can be concluded that the normality of the distribution is met.

The homogeneity test was carried out to determine the similarity of variations or to test that the data obtained came from a homogeneous population. The decision-making criteria are accepted if the significant value is greater than 0.05 (significant > 0.05). The homogeneity test results are as follows:

Table 3 Homogeneity Test

Group	F Count	Sig.	Description
Pre-test Posttest	0.274	0.604	Homogeneous

The results of the homogeneity test of the research variable, the calculated F value between the pretest and posttest, was 0.274, while the significant value was greater than 0.05, which was 0.604. Because the price is significant > 0.05, the hypothesis that the data

is obtained from a homogeneous population is accepted, so it can be concluded that the data in this study came from a homogeneous population.

Data analysis was used to answer the proposed hypothesis, namely whether or not hanging ball practice affects the ability to smash kedeng. (H_o): There is no effect of hanging ball training on the ability to smash kedeng in Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo. (H_a): There is an effect of hanging ball practice on the ability to smash kedeng in Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo.

The analysis used is a t-test analysis to know whether or not there is an effect of hanging ball training on the ability of the smash kedeng in students before and after being given training or treatment. The results of the analysis can be seen in the table below:

Table 4 t-test

Variable	Average		df	t Count	t Table	Sig	Dec.
	Pre-test	Posttest					
Kedeng Smash	18.05	22.15	19	13.358	2.093	.000	Significant

Based on the table, it is known that the analysis of students' kedeng Takraw smash ability in exercises performed using a hanging ball can be released on students of Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo proved to be effective because the t count value is 13.358 > t table 2.093. It can be seen that significant < 0.05. While in the table sig = 0.000 Means 0.000 <0.05, then there is a significant increase. When viewed from the average value, the average value of the pre-test = 18.05 and the average value of the posttest 22.15 because the average value of the posttest is greater than the pre-test. So from these results indicate that the method is effective for improving the ability to smash kedeng in Pendidikan Kepelatihan Olahraga Universitas Negeri Gorontalo.

Based on the analysis of mean differences, it can be seen that the exercise using a hanging ball can be released to increase the students' kedeng smash ability by 4.10 or 22.65%. This figure is obtained from comparing the difference between posttest and pre-test with pre-test data and multiplied by 100%. So the hypothesis states that there is a significant effect with hanging loose ball exercises.

Discussion

This research is an experimental study to improve the ability of the kedeng smash in sepak takraw practice by using a hanging ball that can be detached. The hanging ball training media in question is to use an iron that is arranged in such a way as a tool to hang the Takraw ball that is suspended by a detachable rope. When kicked as a medium for Kedeng Takraw's smash practice.

The results of this study prove that using a hanging ball exercise can be released, it will improve the ability of Kedeng Takraw's smash. This study strengthens the argument from previous research, which states that hanging ball training will increase the smash kedeng Takraw (Bastia and Atiq 2020).

This exercise will be effective if Takraw players practice seriously with the right direction of the coach to improve the kedeng takraw smash. Takraw players can also do other variations of smash techniques with the help of a hanging ball that can be released when kicked.

CONCLUSION

This study concludes that using a hanging ball that can be removed will improve the ability to smash kedeng Takraw.

REFERENCES

Bastia, Bastia, and Ahmad Atiq. 2020. "Pengaruh Drill Training dengan Media Bola Gantung terhadap Kemampuan Smash Kedeng Sepak Takraw." *Jurnal Pendidikan Jasmani Khatulistiwa* 1(1). doi: 10.26418/jpjk.v1i1.43578.

Hardinoto, Nono, Syahbuddin Syah, and Indra Darma Sitepu. 2017. "Perbedaan Karakter Olahraga Kompetitif." *Jurnal Prestasi*.

Heriansyah, and Adelia Suhartiwi. 2021. *Permainan Sepak Takraw Sejarah, Teknik Dasar, Peraturan Pertandingan Dan Perwasitan*. Surabaya: CV. Jakad Media Publishing.

Jufrianis, Jufrianis, Raffly Henjilito, Hernawan Hernawan, Sukiri Sukiri, Abdul Sukur, Dindin Abidin, Manil Karakauki, Syed Kamaruzaman Syed Ali, and Kukuh Wahyudin Pratama. 2021. "The Effect of Knowledge Level (IQ) and Physical Conditions (Power, Flexibility and Coordination) on Smash Technique Learning Skill in Sepak Takraw." *Teorìâ Ta Metodika Fìzičnogo Vihovannâ* 21(3). DOI: 10.17309/tmfv.2021.3.10.

Mylsidayu, Apta, and Febi Kurniawan. 2015. "Ilmu Kepelatihan Dasar." *Bandung: Alfabeta*.

Pernandes, Addriyal, and Ari Sutisyana. 2018. "Pengaruh Latihan Bola Gantung terhadap Kemampuan Smash Kedeng dan Smash Gulung dalam Permainan Sepak Takraw pada Atlet PSTI Kabupaten Lebong." *KINESTETIK* 2(1). doi: 10.33369/jk.v2i1.5741.

Ramadan, G., & Juniarti, Y. (2020). Metode penelitian: pendekatan kuantitatif, kualitatif dan R&D. *CV Sadari*

Suharjana. 2013. *Kebugaran Jasmani*. Yogyakarta: Jogja Global Media.

Syam, Asry. 2019. "Analisis Kemampuan Inteligensi Atlet Cabang Olahraga Sepak Takraw Provinsi Gorontalo." *Jambura Journal of Sports Coaching* 1(2). doi: 10.37311/jjsc.v2i1.2385.

Thamrin, M. Husni. 2008. *Pengembangan Instrumen Tes Keterampilan Bermain Sepak*

Takraw Bagi Mahasiswa. Yogyakarta: LEMLIT UNY.

Yarmani, Yarmani, Syafrial Syafrial, and Arwin Arwin. 2020. “The Implementation of Hanging Ball Exercise for Improving Kedeng Smash Abilities in Takraw Learning.” *KINEST*HETIC 4(1). DOI: 10.33369/jk.v4i1.10564.