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Basic Movement Skills: Using Turbo Media for Throwing Skills for Elementary School Students

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Abstract

This study aims to analyze how much influence the turbo media has on the javelin throwing skill. The method used in this research is the experimental method. The research design used was the-one group pretest-postest design. In this research design, the first step taken was to do a pretest, then give treatment and finally give a posttest or final test. The data analysis used is the normality test, homogeneity test and T-test. Based on data processing and analysis, a significance value of 0.000 <0.05 was obtained, which indicates that there is a significant effect of using turbo media on javelin throwing skills for elementary school students. The recommendation is to reveal other more comprehensive variables to improve javelin throwing skills in elementary school students.

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INTRODUCTION

Everything that is obtained by humans in the form of physical or non-physical nature is the result of systematic or unsystematic motion that is controlled by the heart and is responded by his mind and interpreted by his movements (D Sofyan et al., 2021). Borko, et al. (Hamdu et al., 2018) state that, there has been an increasingly urgent need for professionals by assuring a quality and effective programs implementation. Eslamian and Aref (Hariadi et al., 2020) state that, the teaching and learning process is a system, which includes various integrated components to achieve learning objectives. The availability of media in the teaching and learning process is expected to help teachers improve student achievement. Therefore, teachers should employ media in every learning process to achieve learning objectives.

Athletic learning in elementary schools is very important to develop students› interests and talents in sports. Javelin throwing is an individual sport which includes throwing numbers in athletics that aim to throw as far as possible with the correct technique (Irianti et al., 2015). Meanwhile, according to Saputra ((Irianti et al., 2015) explains that «it is one of the abilities to throw objects in the form of a javelin as far as possible with the correct technique». The javelin throw requires a lot of skills, drills, flexibility and technical understanding to execute the throw. You need to be fast, explosive, elastic, and have an overall fitness level that is very well-balanced.

For a given pitcher there will be a set of release parameters which will yield the largest reach. These parameters are escape velocity (vo), angle of release (ao), angle of attack (bo), angle of release (co), height of release (zo), distance of the forefoot to foul line (s) and component of angular velocity (Bartlett & Best, 1988). Throwing events pose an interesting optimization problem because the flight path cannot be affected by the thrower once the implement has been released, the airborne phase being entirely defined by gravitational and aerodynamic forces (Hubbard & Rust, 1984; (Best et al., 1995). In this regard, effective tools for intensifying the learning process are required (Akhmetshin et al., 2019).

Lumintuarso (Aprilyanti, 2014) states that, throwing a turbo is one of the kid's athletic materials taught in elementary schools. This material is an athletic number adapted from throwing, instead of using a javelin or bullets which tend to be dangerous for children, turbo throwing is a modification of the throwing number with a tool that is safer for students. The development of basic athletic movements makes the forms of developing games a brilliant idea so that elementary school children know the basic athletic movements from an early age. In addition, the characteristics of the development of athletic games for elementary school children are a form of play with the aim of making athletic sports not boring or tiring (Rumini, 2014). Turbo throw is a modified javelin throw intended for children where the series of movements are preceded by a prefix, a throw and a continuation of motion (Jamili, 2014). Turbo is equipment used in learning kid's athletics to throw turbo, turbo-shaped short sticks like missiles that can be thrown like a javelin (Khoerudin, 2014). Thus, this is done to meet the needs and the joy of movements of the child. To achieve the desired results, kids' athletics is designed to bring excitement through their involvement in Athletics. Thus, this is done especially during physical education lessons at school through the implementation of the cooperative strategy (Bensikaddour et al., 2015). The javelin throw requires a lot of skills, drills, flexibility and technical understanding to execute the throw. You need to be fast, explosive, elastic, and have an overall fitness level that is very well-balanced.

The main factor affecting the lack of development of the javelin throwing learning process in elementary schools is that the existing facilities and infrastructure in elementary schools are still far from adequate to fulfill the javelin throwing learning process itself. Even though the original facilities and equipment of the javelin already exist, it only makes students feel difficult in the learning process because the size and weight of the javelin are not suitable for elementary school children, resulting in less than optimal results. In addition, learning is teacher-centered so that students are less creative in collecting information (Sofyan, 2020).

Based on the results of observations on the athletic material of javelin throwing numbers, there are still many students who do not know about the javelin throwing sport. In addition, the process of facilities and infrastructure is still inadequate, students also lack understanding in terms of movement. Most of the students› ability to practice is still far from expectations, for example in handling, prefix, final five steps, release, and recovery. Because all of that is a series of movements that must be mastered well because it is an asset in throwing the javelin.

So that students can practice the basic techniques of throwing the javelin well, it is

necessary to modify learning media that makes it easy, safe and does not make it difficult for students to carry out the learning process. The modification made in this research is to use turbo media as an alternative to the javelin. Turbo media is one of the children›s sports materials taught in elementary schools (Sari, 2013).

The success of learning outcomes in javelin throwing will be classified as low if other supporting facilities or support such as textbooks are inadequate. When the learning process is only with the lecture method or only the material is not accompanied by pictures, it will feel very saturated and monotonous, so that the enthusiasm for student learning is less enthusiastic which results in the javelin throwing skills which are still very far from expectations. The teacher tries to stimulate students› curiosity about javelin throwing by giving the task of watching videos using electronic media. After the students see the video, their sense of wanting to learn will grow and the Physical Education teacher must optimize the children›s enthusiasm by providing interesting learning.

When the learning process is fun, students will respond more quickly or improve their skills so that the results have enormous benefits for the learning process of javelin throwing. When students see the turbo media very enthusiastically, it is a good first step to start the learning process of javelin throwing so that it is easier to direct students to learn javelin throwing using turbo media. When the learning process is fun, students will respond more quickly so that learning outcomes become more effective and efficient.

Based on what has been discussed in the previous, this research uses turbo media or a modified tool for learning javelin to improve skills. Before researcher conduct research, they must first prepare a learning implementation plan (RPP), then prepare turbo media, finally the researcher prepares an assessment sheet.

Overcoming the low learning outcomes of javelin throwing researchers took the initiative to overcome it by providing other alternatives using modified tools so that children can be aroused and excited to learn javelin throwing. Researchers replaced the original javelin which looked very difficult for elementary school children with media that almost completely resembled the original javelin, but this tool is safe for the learning process using turbo media. Turbo media at first glance looks like children›s play but has enormous benefits for the learning process of javelin throwing. The enthusiasm of students when they see turbo media is a good first step to make it easier to direct students to start the learning process.

METHOD

The method used in this research is the experimental method. The experimental research method can be interpreted as a research method used to find the effect of certain treatments, there are others in controlled conditions. The research design used was the-one group pretest-posttest desigen. In this research design, the first step taken was to conduct a pretest or initial test then given treatment and finally given a posttest or final test. Thus, the results of treatment can be known to be more accurate, because it can compare with the conditions before being treated.

The sample in this study can be seen in **Table 1.**

Table 1. Sample

Name of Scholl			
SDN Waringin I		SDN Waringin II	
Male	Female	Male	Female
8	10	9	13
18		22	

Research instrument is a tool used to collect data in a study. The instrument in this study used an assessment rubric. The scoring rubric can be seen in **Table 2.**

Table 2. Assessment rubric

No	Initials	Assessment Rubric																				Total Score
		Start					5 step rhytyrm					Release					Recovery						
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1																						
2																						
Etc.																						
Total																						

For more details regarding the assessment indicators in **Table 2**, it will be explained as follows:

Start

1. The javelin is held horizontally over the shoulder
2. The top of the javelin is at head level
3. Arm remains steady (does not move forward or backward)
4. Run relaxed, controlled and rhythmic acceleration (6-12 steps)

5. Accelerate until you reach the optimal speed, which is maintained or increased in a 5-step running cadence

Step rhythm phase
1. Towing begins on the landing of the left foot.
2. Left shoulder facing the direction of the throw, left arm in front for balance.
3. The arm used for throwing extends backwards during the first and second steps.
4. The arm used for throwing is at shoulder level or slightly higher after pulling.
5. The tip of the javelin is close to the head .

Release phase
1. The right foot is placed flat at an acute angle to the direction of the throw.
2. Legs overtook the axis of the shoulder, javelin and waist are parallel.
3. The right knee and waist are actively pushed forward.
4. The throwing arm remains straight.
5. Shoulder axle, javelin and waist are parallel.

Recovery phase
1. The limbs are quickly swapped after releasing the javelin.
2. The right leg is a bent leg.
3. The upper body is lowered.
4. The left leg swings back.
5. The distance between the feet from the holding leg to the throwing line is 1.5-2.0.

The purpose of this data analysis is to simplify the data into a form that can be understood and interpreted. The data analysis used in this study include: 1) Normality test, 2) Homogeneity test, 3) T-test. After knowing the test results data are normally distributed and the two scores to be tested for equality have the same variance, the next step is to perform a parametric test with a T-test.

The research was conducted in the new normal era, so there are many health regulations or protocols that must be obeyed according to the face-to-face permit issued by the Majalengka Regency Education Office. The face-to-face meeting was held on August 24, 2020 according to a circular from the Majalengka Regency Education Office.

The contents of the Majalengka Regency Education Office Circular issued on August 19, 2020, Number 423/3017-Disdik concerning the Implementation of Face-to-Face Learning in Elementary and Middle School Education Units during the Covid 19 Emergency Period in Majalengka Regency, among others:

1. Students must always wear masks and face slides made of clear plastic.
2. The school must also provide a place to wash hands and soap for students.
3. Before students enter the school area at the school gate, students must check their body temperature first after the health protocols are adhered to.
4. The entire contents of the Circular also issue rules for reducing lesson hours and are applied in groups or alternately / take turns.
5. All policies issued by the Majalengka Regency Education Office must always be obeyed so that the face-to-face process can run and avoid the Covid-19 virus outbreak

RESULTS AND DISCUSSION

Pretests were conducted on students of SDN Waringin I and II, of course, at different times. To provide an initial understanding, students were told how to hold a javelin, then students took a pretest. The results of the pre test and post test can be seen in **Table 3**.

Table 3. Pre-test and Post-test Result

	Group	N	Mean	SD	Min	Max
Pretes	Group 1	18	56,39	5,893	50	65
	Group 2	22	45,23	4,219	40	50
Postes	Group 1	18	78,61	4,791	70	85
	Group 2	22	72,73	3,355	70	80

Based on **Table 3**, it can be seen that the statistical descriptive results of the pretest experimental class 1 are 56.39, and the mean posttest score for experimental class 1 is 78.61. Meanwhile, the descriptive statistical pretest results for experimental class 2 were 45.23 and the mean posttest score for experimental class 2 was 72.73. Based on these calculations, the experimental class 1 has increased more than the experimental class 2. The results showed that the pretest statistical description for experimental class 1 was 56.39, and the mean post-test score for experimental class 1 was 78.61. Meanwhile, the descriptive statistical pretest results for experimental class 2 were 45.23 and the mean posttest score for

experimental class 2 was 72.73. Based on these calculations, the experimental class 1 increased more than the experimental class 2.

Normality test is to find out whether a data distribution is normal or not.

Table 4. Normality Test Kolmogorov-Smirnov

Group	df	Sig.	Distribution
Pre test Ex. 1	18	0,955	Normal
Posttest Ex. 1	18	0,440	Normal
Pre test Ex. 2	22	1,583	Normal
Posttest Ex. 2	22	1,101	Normal

From the results of the **Table 4** normality test using the Kolmogorov-Smirnov value, it can be concluded that the pretest and posttest data of experimental group 1 and experimental group 2 are normally distributed because all significance values are greater than 0.05.

Table 5. Homogenity Test

	Levane Statictic	df1	df2	Sig.	
Pretest	0,893	1	38	0,351	Homogeneous
Posttest	3,664	1	38	0,063	Homogeneous

Based on the output above, it is known that the results of the **Table 5** homogeneity test of the experimental pretest 1 and 2, the significance value is 0.351 > 0.05, and the results of the homogeneity test for the post-test experiment 1 and 2, the significance value is 0.063 > 0.05, so both variances are homogeneous. So it can be concluded that the variance of the pretest experimental class 1 and posttest experimental class 2 is homogeneous.

To find out whether there is a difference between the experimental class 1 and the experimental class 2, a t-test was performed.

Table 6. Results of T-test for Experimental Class 1 and Experiment Class 2

Variable	Paired Differences	95% Confidence Interval of the Difference		t-count	Sig. (2 tailed)
	Mean	Lower	Upper		
Pre-Posttess Ex. 1	73,900	72,379	75,421	98,30	0,00
Pre-Posttest Ex. 2	48,750	46,367	51,133	41,37	0,00

Based on **Table 6**, the significance value for the t-test of the experimental class 1 is 0.000 <0.05 and the significance value of the experimental class 2 is 0.000 <0.05. And he difference value for the experimental class 1 is 73,900 and for the difference value for the experimental class 2 is 48,750. So, the Ho test criteria were rejected, meaning that the use of turbo media had a positive impact on the javelin throwing skills of elementary school students (Yunarni et al., 2016).

Research conducted by Irianti, et al., in 2015 reported that the application of learning methods using turbo media was proven to improve learning outcomes of javelin throwing skills. This is evidenced by an increase in learning outcomes of javelin throwing skills which is quite good, namely in the first cycle with an average value of 69.64, so the increase is 18.25%. While the average value in the second cycle is 80.67, so the increase is 36.98%.

The learning method using turbo media is proven to improve learning outcomes of javelin throwing skills (Dika et al., 2019). From several relevant studies related to the use of turbo media on javelin throwing skills, the results show that the use of turbo media can have a positive impact on the development of javelin throwing skills..

CONCLUSION

After the researcher gave the javelin throwing lesson using turbo media, there was a positive change. Turbo media is a very suitable tool for elementary school students as a substitute for the original javelin to improve students' javelin throwing skills.

Recommendations for further research are to reveal other variables to be studied in order to obtain more comprehensive information to improve the basic movement skills of javelin throwing in elementary school students.

REFERENCES

Akhmetshin, E. M., Ibatullin, R. R., Gapsalamov, A. R., Vasilev, V. L., & Bakhvalov, S. Y. (2019). Audiovisual aids application in the secondary-level vocational education establishments: Efficiency analysis and assessment. International Journal of Educational Management, 33(2), 374–392. https://doi.org/10.1108/IJEM-02-2018-0082

Aprilyanti, H. (2014). Journal of Physical Education, Sport, Health and Recreations. Peningkatan Pembelajaran Lempar Turbo melalui Permainan Bola Sasaran, 3(3), 962–969.

Bartlett, R. M., & Best, R. J. (1988). The biomechanics of javelin throwing: A review. In Journal of Sports Sciences (Vol. 6, Issue 1). https://doi.

org/10.1080/02640418808729791

Bensikaddour, H., Mokrani, D., Ahmed benklaouz, T., Benzidane, H., & Sebbane, M. (2015). The importance of the practice of competitive games kid's athletics in physical education for college students (11-12 years) using the cooperative learning strategy. European Scientific Journal VO - 11, 11(32), 280. http://libproxy.cortland.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.441690432&site=eds-live

Best, R. J., Bartlett, R. M., & Sawyer, R. A. (1995). Optimal Javelin release. Journal of Applied Biomechanics, 11(4), 371–394. https://doi.org/10.1123/jab.11.4.371

Dika, Y., Purnomo, E., & Samodra, T. J. (2019). Perbandingan Latihan Menggunakan Media Bola Tenis dan Modifikasi Turbo terhadap Hasil Lempar Lembing. Jurnal Pendidikan dan Pembelajaran Khatulistiwa, 8(10), 1–10.

Hamdu, G., Sopandi, W., & Nahadi. (2018). Debriefing program for prospective elementary school teachers in developing learning AIDS. International Journal of Learning, Teaching and Educational Research, 17(6), 112–126. https://doi.org/10.26803/ijlter.17.6.7

Hariadi, H., Suryansah, S., & Watoni, M. R. R. (2020). The Implementation of Kid's Athletics as an Interactive Audio Visual Learning Media. TEGAR: Journal of Teaching Physical Education in Elementary School, 4(1), 55–60. https://doi.org/10.17509/tegar.v4i1.27821

Irianti, Yunitaningrum, W., & Purnomo, E. (2015). Upaya Meningkatkan Keterampilan Lempar Lembing dengan Menggunakan Media Turbo pada Siswa Kelas VII SMP. Jurnal Pendidikan Dan Pembelajaran Khatulistiwa, 4(4), 1–12.

Jamili. (2014). Penerapan Pendekatan Bermain Bola Ekor untuk Meningkatkan Hasil Belajar Lempar Turbo pada Siswa Kelas V SDN Kutowinangun 11 Kecamatan Tingkir Kota Salatiga Tahun Pelajaran 2012/2013. Journal of Physical Education, Sport, Health and Recreation, 3(9), 1289–1293. http://journal.unnes.ac.id/sju/index.php/peshr

Khoerudin, H. (2014). Journal of Physical Education , Sport , Health and Recreations. Journal of Physical Education, Sport, Health and Recreation, 4(3), 1653–1659. http://journal.unnes.ac.id/sju/index.php/peshr

Rumini. (2014). Pembelajaran Permainan Kids Atlhletics Sebagai Wujud Pengembangan Gerak Dasar Atletik Pada Anak-Anak. Journal of Physical Education Health and Sport, 1(2), 98–107. https://doi.org/10.15294/jpehs.v1i2.3208

Sofyan, D, Saputra, Y. M., Nurihsan, A. J., & Kusmaedi, N. (2021). Sports in Indonesian Islamic Community Culture. Proceedings of the 1st Paris Van Java International Seminar on Health, Economics, Social Science and Humanities (PVJ-ISHESSH 2020), 535, 357–360. https://doi.org/10.2991/assehr.k.210304.079

Sofyan, Davi. (2020). Pengaruh Model Cooperative Learning Tipe Student Teams Achievement Division Terhadap Keterampilan Lay-Up Shoot Bola Basket. Jurnal Educatio FKIP UNMA, 6(2), 690–695. https://doi.org/10.31949/educatio.v6i2.740

Yunarni, C., Supriatna, E., & Purnomo, E. (2016). Lempar Lembing Dengan Media Pembelajaran. Jurnal Pendidikan Dan Pembelajaran Khatulistiwa, 5(5), 1–8.