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Implementation of PE Learning in Increasing Interest in Learning Javelin Throwing through the Application of Rocket Throwing

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ABSTRACT
This study aims to implement PE learning in increasing interest in learning javelin throwing through the application of rocket throwing. This research method is experimental, The population in this study was 35 students, so this research is a population study research. The research instrument with an action test questionnaire, data collection and data analysis techniques using observation, documentation method, action test method. From the results showed that the value of r count obtained was 0.183 while the value of r table with a significant level of 5% showed 0.334, this means that the r count obtained is smaller than the limit number of rejection of the null hypothesis (Ho) listed in the product moment table. To reject the null hypothesis (Ho), the value of r count is equal to or greater than the value of r table. It is concluded that there is no implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue on students.

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implementation; PE learning; learning interest; javelin throwing; rocket throwing

Introduction

Activities carried out in everyday life without realizing it are a form of exercise, such as walking up and down stairs, carrying bags, lifting gallons, and many others. But that is not enough to make the body physically and mentally healthy. To make the body physically and mentally healthy, the body must always be trained or often perform movements, in the sense of more active movements with sufficient intensity. Aside from being a form of making humans physically and mentally healthy, sports also have a more specialized role, namely sports as a form of achievement. In other words, the role of sports in everyday life is very important.

The development of sports in Indonesia has begun to have a positive impact on society, not only on fitness and physical health but on the growth of the economy from a sport. Sports are packaged in a form of matches and championships. But this is not separated from a sporting achievement. One sport that is growing or developing is athletics. Athletics is synonymous with no running, but in athletic sports divided into race numbers, athletic sports are broadly grouped into running numbers, walking numbers, jumping numbers and throwing numbers. Throwing numbers are divided into, throwing discs, rejecting bullets, throwing hammerheads and throwing javelins.

The growth or development of athletic sports in plain sight is only in running numbers. This is inseparable from the lack of championships held so that interest in road numbers, jump numbers and throwing numbers is so low. The form of sports development is poured in the form of education, namely physical education sports and health. This education aims to make human resources tough and qualified in any field, especially sports. Physical education according to Safari (2012: 8) states that "An educational process / a person as an individual and as a member of society that is carried out consciously and systematically through various physical activities, intelligence growth and character building".

The formulation of physical education goals in general as follows; (1) organic development, (2) neomuscular development, (3) Interpretive development, and (4) social and emotional development.

To achieve the objectives of physical education sports and health in schools is standardized in the form of curriculum level education unit (KTSP). Based on the education unit level curriculum or KTSP, junior high school physical education with reference to lesson plans or lesson plans with reference to Competency Standards or SK and Basic Competencies or KD. Athletic education is described in the Competency Standard which reads, "1. Practicing various basic techniques of games and sports and the values contained therein" and its Basic Competencies, "1.3.

Practicing basic techniques of one of the advanced athletic games and sports with good coordination and the value of cooperation, tolerance, confidence, courage, maintaining the safety of self and others, willing to share places and equipment. The physical education learning process at SMPN 4 Selong runs as it should and in accordance with the Competency Standards and Basic Competencies based on the education unit curriculum (KTSP). In the implementation of the 2013 curriculum, character education can be integrated in all learning in each subject area contained in the curriculum. One of them is learning PE. PE is an educational process of a person as a member of society that is carried out consciously and systematically through various physical activities in order to obtain increased physical abilities and skills, growth, intelligence, and character building (Paimin, 2008: 43).

To implement the goals of national education through this new curriculum, it certainly requires solid cooperation with various parties directly concerned with education. Among them are the role of teachers and the government in socializing the 2013 curriculum to the community in general and to teachers in particular. Teachers are an important factor, great influence, and determine the success of students in learning. Teachers are expected to quickly adapt to the new curriculum to support their duties in meeting the demands of the government in the implementation of the 2013 curriculum. One way to make the adaptation process run quickly is by following the 2013 curriculum socialization organized by the government, or studying the 2013 curriculum yourself by trying to find references that can help teachers understand and later be able to implement the 2013 curriculum into learning.

Based on field experience at SMPN 4 Selong for three months. Students tend to be more interested in certain team sports, for example soccer, basketball, volleyball etc., this tendency makes students not really follow the physical education learning process which is individual sports, so that it has an impact on student learning outcomes. The tendency of students to team sports can make the learning process less interesting and less effective, so that student interest in participating in learning is still low and has an impact on the results of the individual physical education learning process, especially athletics.

The fundamental problem of this research is how much interest in learning javelin throwing VIII class students of SMPN 4 Selong which is expected to be an evaluation material for schools, teachers and students. For schools, the material for evaluating teacher performance, for teachers, the material for evaluating the learning process and for students to illustrate the extent of their abilities in throwing javelins and as a trigger for the enthusiasm of SMPN 4 Selong students in achieving in the field of sports. Based on the description above, the researcher wants to know the implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket throwing in class VIII students of SMPN 4 Selong, which will later become a reference for students and teachers to be more enthusiastic and excel in the field of athletic sports. In addition, researchers want to apply rocket throwing in javelin throwing learning to make it easier for students to throw javelins.

Method

The type and design of research used in this study is experimental. Experimental research is research that aims to determine the effects on research subjects. In this study, at least one condition

can be manipulated. While other conditions are considered constant and then the effect of differences in conditions or variables can be measured (Sugiyono, 2009: 107). Population is a generalization area consisting of objects / subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. "(Sugiyono, 2003)". While other experts say that population is as all individuals who are the subject of research.

Meanwhile, according to Arikunto (2012) the population is the entire research subject. Based on these two opinions, the population in this study were male students in class VIII A totaling 18 students and class VIII B totaling 17 students. So the total number of samples used amounted to 35 male students of SMPN 4 Selong. The sample is a portion taken from the population. The so-called sample is part of the number and characteristics possessed by the population (Sugiyono, 2010: 118). Meanwhile, according to Arikunto "Samples are part or representative of the population studied" (Arikunto, 2010: 174). In this study, the population did not use a sample but the entire population was used as a research sample, namely SMPN 4 Selong, which amounted to 35 people. So this research is a population study research. The instrument in a study is a tool used to collect the required data. Instruments are tools used as data collection that must be designed and made so as to produce data as it is (Arikunto, 2010: 45).

Table 1. Instrument of Interest in Learning Javelin Throwing for Male Class Students VIII SMPN 4 Selong

No	Basic Motion of Javelin Throwing	Score				Total Score
		1	2	3	4	
1	Handle					
	a. The javelin lies diagonally in the hand at an angle of +100					
	b. The palm of the hand is facing upwards					
	c. The javelin is held close to the head (ear) with relaxation					
	d. The grip uses one of the three types of grip that have been standardized by the IAAF					
2	Prefix					
	a. The javelin is held horizontally or horizontally above the shoulder.					
	b. The position of the javelin eye is at head level, in line with the ear					
	c. The javelin is held steady and does not move forward or backward.					
	d. Run with controlled acceleration, from slow to fast and rhythmic					
3	Five-Step Movement					
	a. Left shoulder facing the direction of the throw					
	b. The position of the throwing arm straight back at shoulder height					

	c. The position of the javelin eye is close to the head (in line with the eye).	
	d. The right knee is swung forward not swung up or lifted up	
4	Release Motion	
	a. The left foot blocks firmly, with the entire sole of the foot	
	b. The left elbow is bent or bent horizontally close to the chest	
	c. The javelin comes out of the hand at an angle of + 340	
	d. The moment the javelin leaves the hand, body weight shifts to the right foot	
	Total	

The form of implementation, the researcher will give an assessment to students to what extent the pinat learns to throw lebing when the implementation of learning is taking place. The assessment procedure is as follows:

a. Score 1: Very Poor
b. Score 2: Less Good
c. Score 3: Good
d. Score 4: Very Good

The data collected is then processed and analyzed, in general, data analysis is divided into two ways, namely statistical analysis and non-statistical analysis (Arikunto, 2012: 52). In the book introduction to research methodology, it is explained that managing data means weighing, filtering, organizing and classifying it. Weighing and filtering means choosing with the problem under study. Organizing and analyzing data means classifying the data according to certain rules. In connection with this study, the researcher wants to know whether or not there is an implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue in class VIII students of SMPN 4 Selong in the 2018/2019 school year. Then the produck moment statistical analysis is used with the following formula.

Translated with www.DeepL.com/Translator (free version)

$$rxy = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2}}$$

Description:
rxy: correlation coefficient between variable x and variable y
N: number of subjects
∑x: number of x variables
∑y: number of y variables
∑xy: the sum of the multiplication of scores x and y
∑x2 : sum of squares of x variable
∑y2 : sum of squares of variable y
(x2): the square of the number of x variables

(y2): the square of the number of variables y

Results and Discussion

The following are the results of the basic motion test of javelin throwing in class VIII students of SMAN 4 Selong can be seen in the table below

Table 2. Basic Motion of Javelin Throwing

No	Nama Siswa	Jumlah Skor
1	Harmaen	25
2	L. Febrian Putra Ruliantara	30
3	M. Asmawi Hirza Nulhadi	24
4	M. Asrolul Hikam	25
5	M. Ansurulloh	27
6	M. Khairiussalapi	35
7	M. Roni Sopian	43
8	Muhammad Ariya Adji	40
9	Muhammad Ridwan	36
10	Mukminul Suruji	35
11	Alfian Arkananta	28
12	Diman Faizaltu Rohman	43
13	Hafizun	42
14	Haris Riad	40
15	L. M. Yazid Khoir	29
16	M. Fatoni	32
17	Zainul Majdi	31
18	Riyadussolihin	36
19	M. Zainuddin	40
20	Yahya Ismail	42
21	Wahyu Ilhami	42
22	Muhammad Sobri	40
23	Muh. Salehuddin	29
24	M. Hilman Suryadi	32
25	Muh. Solehudin	31
26	M. Hilman Suryadi	36
27	M. Lian Ihzanwadi	40
28	M. Hani Sakir	42
29	Ilham Halik	27
30	Hairul Fahri	35
31	Alfan Ahmadi	43
32	Aji Riswandi Hidayat	40
33	Yuli Hidayat	36
34	Pandi Darma Bakti	35
35	M. Syaefulloh	38

The results of the javelin throwing test through the application of rocket throwing on male students of class VIII SMPN 4 Selong can be seen in the following table.

Table 3. Javelin Throwing Test Through the Application of Rocket Throwing

No	Nama Pemain	Tes (Meter)			Nilai Terbaik
		1	2	3	
1	Harmaen	8	9	8	9
2	L. Febrian Putra Ruliantara	9	9	10	10
3	M. Asmawi Hirza Nulhadi	7	9	8	9
4	M. Asrolul Hikam	7	9	8	9
5	M. Ansurulloh	11	11	10	11
6	M. Khairiussalapi	8	10	9	10
7	M. Roni Sopian	10	11	10	11
8	Muhammad Ariya Adji	12	12	11	12
9	Muhammad Ridwan	12	12	11	12
10	Mukminul Suruji	8	9	9	9
11	Alfian Arkananta	8	10	10	10
12	Diman Faizaltu Rohman	8	9	8	9
13	Hafizun	11	11	10	11
14	Haris Riad	8	10	9	10
15	L. M. Yazid Khoir	8	9	8	9
16	M. Fatoni	7	9	9	9
17	Zainul Majdi	8	8	8	8
18	Riyadussolihin	9	9	8	9
19	M. Zainuddin	10	10	9	10
20	Yahya Ismail	10	11	11	11
21	Wahyu Ilhami	8	8	7	8
22	Muhammad Sobri	8	9	8	9
23	Muh. Salehuddin	8	10	10	10
24	M. Hilman Suryadi	8	9	9	9
25	Muh. Solehudin	8	8	8	8
26	M. Hilman Suryadi	7	7	7	7
27	M. Lian Ihzanwadi	8	9	9	9
28	M. Hani Sakir	9	10	9	10
29	Ilham Halik	10	11	10	11
30	Hairul Fahri	9	10	8	10
31	Alfan Ahmadi	8	9	8	9
32	Aji Riswandi Hidayat	8	10	8	10
33	Yuli Hidayat	8	8	7	8
34	Pandi Darma Bakti	11	12	11	12
35	M. Syaefulloh	10	11	9	11
	∑ y				339

Each player is given the opportunity to throw three times, at the data collection stage the researcher takes the best score or the farthest throw of the three throws. To test the alternative hypothesis (Ha) which reads "There is an implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue on class VIII students of SMPN 4 Selong in the

2018/2019 school year.", which is proposed, it must first be changed into a null hypothesis (Ho) which reads: There is no implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue in class VIII students of SMPN 4 Selong in the 2018/2019 school year. In accordance with the formula used, the work table needed is a work table to determine the components in the formula. The work table in question is as follows.

Table 4. Working Table for Finding rxy

No	Nama	X	Y	x^2	y^2	x.y
1	Harmaen	25	9	625	81	225
2	L. Febrian Putra Ruliantara	30	10	900	100	300
3	M. Asmawi Hirza Nulhadi	24	9	576	81	216
4	M. Asrolul Hikam	25	9	625	81	225
5	M. Ansurulloh	27	11	729	121	297
6	M. Khairiussalapi	35	10	1225	100	350
7	M. Roni Sopian	43	11	1849	121	473
8	Muhammad Ariya Adji	40	12	1600	144	480
9	Muhammad Ridwan	36	12	1296	144	432
10	Mukminul Suruji	35	9	1225	81	315
11	Alfian Arkananta	28	10	784	100	280
12	Diman Faizaltu Rohman	43	9	1849	81	387
13	Hafizun	42	11	1764	121	462
14	Haris Riad	40	10	1600	100	400
15	L. M. Yazid Khoir	29	9	841	81	261
16	M. Fatoni	32	9	1024	81	288
17	Zainul Majdi	31	8	961	64	248
18	Riyadussolihin	36	9	1296	81	324
19	M. Zainuddin	40	10	1600	100	400
20	Yahya Ismail	42	11	1764	121	462
21	Wahyu Ilhami	42	8	1764	64	336
22	Muhammad Sobri	40	9	1600	81	360
23	Muh. Salehuddin	29	10	841	100	290
24	M. Hilman Suryadi	32	9	1024	81	288
25	Muh. Solehudin	31	8	961	64	248
26	M. Hilman Suryadi	36	7	1296	49	252
27	M. Lian Ihzanwadi	40	9	1600	81	360
28	M. Hani Sakir	42	10	1764	100	420
29	Ilham Halik	27	11	729	121	297
30	Hairul Fahri	35	10	1225	100	350
31	Alfan Ahmadi	43	9	1849	81	387
32	Aji Riswandi Hidayat	40	10	1600	100	400
33	Yuli Hidayat	36	8	1296	64	288

34	Pandi Darma Bakti	35	12	1225	144	420
35	M. Syaefulloh	38	11	1444	121	418
	∑	1229	339	44351	3335	11939

After the data is collected, at this stage the researcher will enter the sample data into the work table with the conditions: X = interest in learning javelin throwing Y = javelin throwing through the application of rocket throwing, x2 = square of X, x2 = square of Y and x.y = product of x variable and y variable. Of all the numbers listed in the work table from each variable, then the number of variable numbers is entered into the produck moment coefficient formula, with the following formula.

$$rxy = \frac{N\sum xy - \left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left\{N\sum X^2 - \left(\sum X\right)^2\right\}\left\{N\sum Y^2 - \left(\sum Y\right)^2\right\}}}$$

Description:
rxy = correlation coefficient between variables X and Y
N = number of research subjects
∑xy = the sum of the research results of each original score of x and y
∑x = number of x variable scores
∑y = total score of variable y

$$= \frac{35x11939 - (1229)(339)}{\sqrt{\{35x44351 - (1229)^2\}\{35x3335 - (339)^2\}}}$$
$$= \frac{417865 - 416631}{\sqrt{\{1552285 - 1510441\}\{116725 - 114921\}}}$$
$$= \frac{1234}{\sqrt{\{41844\}\{1.804\}}}$$
$$= \frac{1234}{\sqrt{45358896}}$$
$$\frac{1234}{6735.01}$$

rxy = 0,183

After obtaining the r-count value, a value of 0.183 was obtained, then the r-table value with the degree of freedom (db) N = 35 r-table was 0.334, or in other words, the r-count obtained was smaller than the limit number for rejecting the null hypothesis (Ho) listed in the table of values "r" reality above, namely r-count is smaller than r-table (0.183> 0.183), thus the r-count value obtained in this study is not significant. Based on the testing of the t-count value and the t-table value, it can be concluded that the null hypothesis (Ha) proposed reads "There is an implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue on class VIII students of SMPN 4 Selong in the 2018/2019 school year". "Rejected".

The results showed that the r-count value obtained was 0.183 while the r-table value with a significant level of 5% showed 0.334, this means that the r-count obtained is smaller than the limit

number for rejecting the null hypothesis (Ho) listed in the product moment table. To reject the null hypothesis (Ho) it is necessary that the r-count value is equal to or greater than the r-table value. From the discussion above, it shows that: There is no implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue in class VIII students of SMPN 4 Selong in the 2018/2019 school year. This is based on the consideration that Ho is deliberately prepared to be rejected while Ha is prepared to be accepted (Danim and Darwis, 2005: 171). The above statement shows that interest in learning javelin throwing in PE learning at school does not really affect what students should understand is how to do the javelin throwing technique, so that knowledge of athletic sports, especially javelin throwing, is not minimal.

Conslusions

Based on the results of data analysis, the calculated r value is smaller than the r-table (0.183>0.334) with a significant level of 5%. To reject (Ho), the t-value (calculated equal to or greater than the r-table value) is required. So, it can be concluded that: There is no implementation of PE learning in increasing interest in learning javelin throwing through the application of rocket glue in class VIII students of SMPN 4 Selong in the 2018/2019 school year. In connection with the results of this study, the researcher proposed suggestions, among others. The results of this study are expected as a reference material for sports teachers, coaches or sports coaches in order to improve athletic sports achievements, especially in the field of javelin throwing. Students as research subjects, are expected to gain direct experience regarding active, creative and fun learning through PE learning in increasing interest in learning javelin throwing so that the development of children's abilities can increase. The results of this study are theoretically expected to contribute ideas in enriching insights through PE learning in increasing interest in learning javelin throwing.

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