ISSN:xxxx-xxxx

Proceedings of the 1st International Conference on Education, Science Technology And Health (ICONESTH 2023 Universitas Bina Bangsa Getsempena, Sept 25-27, 2023, Banda Aceh, Indonesia

THE EFFECT OF USING VISUAL VIDEOS FOR LEARNING BASIC SWIMMING TECHNIQUES AND PUSH UP EXERCISES ON SWIMMING BREASTSTROKE ABILITY AT STATE 1 SINGKIL PRIMARY SCHOOL

Maqhfira Laili Syafitri Zega[1*], Septi Hariansyah[2], Munzir[3]
[123]Universitas Bina Bangsa Getsempena, Banda Aceh, Indonesia

* corresponding email: *lailisyafitrizega07@gmail.com*

ABSTRACT

This study entitled: "The effect of using visual video on learning basic butterfly swimming techniques with push-up exercises at SDN 1 SINGKIL" This study aims to determine the effects of using visual videos on learning basic butterfly swimming techniques with push-up exercises at SDN 1 SINGKIL the formulation of the problem in this study is: Is there any effect of the use of visual videos on learning the basic technique of swimming the butterfly style with push up exercises at SDN 1 SINGKIL? The method used in this research is quantitative. Certain pretest-posttest populations in this study were students in class 5A at SDN 1 SINGKIL in 2022/2023, totaling 20 students. The sampling technique is cluster sampling. The data collection technique used was the basic butterfly stroke technique test. The data analysis technique used is to calculate the average value(mean), standard deviation and the two-mean difference tet(t.test). Based on the results of the study, there was an effect of using visual videos on learning the basic techniques of butterfly stroke swimming with push-up exercises influenced by several other factors, only 22,6 % of the basic techniques of butterfly stroke swimming were influenced by push-up exercises.

Keywords: *influence, use of visual videos, on learning the basic technique of butterfly swimming, with the push-up exercise.*

INTRODUCTION

The world of education is required to improve itself following developments in the era of globalization. Learning is also considered as forming a person's identity in their environment, in other words, in learning a natural process occurs to shape a person's character (Alnashri, 2015: 193). Education and achievement are conscious and planned efforts to create a learning atmosphere and learning process so that students more actively

develop their potential to have religious spiritual strength, self-control, personality, noble morals, and the skills needed by themselves, society, nation and state. (Indonesian Constitution No. 20: 3)

Science and technology today are developing very rapidly. This is one of the impacts of developments over time. With the increasingly rapid development of the times, it must be directly proportional to the supporting factors. For this reason, of course, superior and high-achieving human resources are needed. Humans are equipped with mental and physical intelligence in their achievements. Therefore, seeking knowledge or achievement and developing it is an obligation for every human being. Education is the main and first concern to advance the lives of generation to generation in line with the progress of society. Therefore, humans need education in their lives.

Education and achievement are conscious and planned efforts to create a learning atmosphere and learning process so that students more actively develop their potential to have religious spiritual strength, self-control, personality, noble morals, and the skills needed by themselves, society, nation and state. (Indonesian Constitution No. 20: 3)

According to Kneller (Wiji, 2009), education has a broad and narrow meaning. In a broad sense, education is defined as actions or experiences that influence the development of an individual's soul, character or physical abilities. Meanwhile, in a narrow sense, education is a process of transforming knowledge, values and skills from generation to generation, which is carried out by society through educational institutions such as schools, higher education or other institutions.

In Dewey's opinion (Wiji, 2009) views education as a reconstruction or reorganization of experience to make it more meaningful, so that this experience can direct future experiences.

According to Abdullah (Rusli, 2010:7), learning outcomes are an indicator of the quality and knowledge mastered by students. In the term learning outcomes, there are two elements, namely the outcome element and the learning element.

The learning process is a series of activities that occur in the nerve centers of individuals who learn. The learning process occurs abstractly because it occurs mentally and cannot be observed. Therefore, the learning process can only be observed if there is a change in someone's behavior which is different from before. These behavioral changes can be cognitive, affective or psychomotor. Changes in behavior resulting from the learning process are called learning outcomes.

The Primitive Nation does not yet have a philosophical view of life, because all its activities are devoted to maintaining its life, namely: (1) looking for food, (2) defending itself, and (3) defending species. In these three factors, they are very dependent on their physical efficiency so their education

and culture are greatly influenced by the events that happened to them at that time.

Soegijono wrote "The Role of Physical Education and Sports in Elementary Schools as a Foundation for the Development and Development of National Sports" (p.97-114). Elementary school is the most important level of education, so improving the quality of education must start from here. One of the points of the Ministry of National Education's Strategy (2001) reads: "Through elementary school, students are equipped with basic abilities and basic skills to be able to anticipate problems in everyday life, including sports skills and other life skills (life skills). "Five components determine the quality of the learning process in elementary school: (1) teacher professionalism, (2) effective and efficient education management, (3) adequate books and learning facilities that are always ready to use, (4) physical and appearance of the school, and (5) active community participation". In discussing physical education policies in elementary schools, this UNNES professor quoted various letters, decrees and laws, such as Law no. 2 of 1989 concerning SPN, MPR Decree no. IV/1999 concerning GBHN, Dirdikdas circular no. 029/02/u/93, Dirdikdasmen decision no. 079/c/kep/1/93, Ditdikdas circular no. 1073/c2/u/94, Ditdikdas circular no 0766/C2/or.98, Minimum Service Standards (SPM) for Elementary School Implementation, Kepmendikbud no.0181/u/1996, Puskur Balitbang 2001.

When studying physical education, sports and health, there are swimming lessons that involve a lot of physical activity. In the process of learning to swim, there are several types of styles, namely freestyle (the crawl stroke), breaststroke (breaststroke), back style (back crawl stroke), and butterfly style (butterfly stroke). Swimming is a sport that requires calm thinking and behavior, because the more hasty you move, the more your body will sink.

In the breaststroke swimming technique, there are several parts that students must understand, namely basic breathing techniques, hand swings, leg swings and coordinated movements between the hands and feet.

In its development, teachers and reformers believe that physical activity is as good for female students as it is for male students, whether they live in dormitories or not. In 1900, physical education emerged as a state requirement for public schools, which increased the need for professional education and organizations (Mechikoff and Estes, 2006). Hanief and Sugito (Mashuri, Hanief & Subekti, 2018: 162) say that Physical Education, Sports and Health (PJOK) have a complex role in the character formation process because it is related to affective, cognitive and psychomotor. The learning process in sports is not much different from the learning process in other subjects, all of them are structured or planned learning processes (Lvhua, 2011:4248). One of the sports that are currently liked by the public is swimming because it is easy and cheap. Swimming can also be done by all groups from young to old (Sungkowo & Rahardjo, 2012:243). Swimming can provide a new experience,

refreshment, and fun, as well as increase the movement of people who swim (Special Olympics, 2009: 1).

This is what causes the movements made by students not to be optimal when swimming breaststroke during learning. The lack of understanding of students makes the series of movements in breaststroke swimming carried out by students not optimal.

One of the sports that is currently liked by the public is swimming because it is easy and cheap. Swimming can also be done by all groups from young to old (Sungkowo & Rahardjo, 2012:243). Swimming can provide a new experience, refreshment, and fun, as well as increase the movement of people who swim (Special Olympics, 2009: 1).

Hanief and Sugito (Mashuri, Hanief & Subekti, 2018: 162) say that Physical Education, Sports and Health (PJOK) have a complex role in the character formation process because it is related to affective, cognitive and psychomotor. The learning process in sports is not much different from the learning process in other subjects, all of them are structured or planned learning processes (Lvhua, 2011:4248).

Based on my research when conducting a survey at SD Negeri 1 Singkil, I saw the enthusiastic students of SD Negeri 1 Singkil who could be said to be quite active in physical education lessons and at the school, the facilities or facilities and infrastructure were adequate for conducting research. For this reason, researchers conducted research at SD Negeri 1 Singkil because the researchers wanted to know or see how well students learn about sports, including swimming, with the title "The effect of using visual videos to learn basic swimming techniques and push-up exercises on breaststroke swimming ability. at Sdn 1 Singkil..."

METHODS

The approach used in this research is quantitative because in this research it uses numbers that can be processed using statistical methods. According to Arikunto (2006:94), quantitative research is research conducted using quantitative measures whose analysis is dominated by statistics.

The type of research used is experimental analysis. Sugiyono (2013:34), states that "quantitative research methods are used if you want to know the effect needed (treatment) certain to others." Therefore, this research aims to find out whether or not there is an influence of the use of visual videos for learning basic swimming techniques and push-up exercises on breaststroke swimming ability at SD Negeri 1 Singkil.

Sample population:

In research, population is used to refer to an element/member of an area that is the target of research or constitutes the entire object of research. The

research population refers to all students at SDN 1 Singkil. So the population in this study was 470 students.

A sample is a sample or part of the object under study that represents the population. So in determining the sample, the author is guided by the opinion of Arikunto (2016) who states that: "if there are less than one hundred (100) subjects, it is better to take all of them so that the research is population research. So, the sample for this researcher is class 5 consisting of 20 students at SDN 1 Singkil where these students will be divided into two groups, so 10 students in one group and 10 in group two. The total sample in this research is 20 students. This research will be carried out in the even semester of 2022/2023.

Research variable:

1. Independent Variable (X)

The independent variable is the variable that influences or is the cause of the change or the dependent variable arises (Sugiyini, 2013: 104). The independent variable in this research is the influence of using visual videos for learning basic swimming techniques and push-up exercises on breaststroke swimming ability at SD Negeri 1 Singkil.

2. Dependent Variable (Y)

The dependent variable is the variable that is influenced or becomes a consequence, because of the existence of the independent variable. In this study, the dependent variable used was the results of learning the breaststroke swimming ability of grade 5 students at SDN 1 Singkil.

Data collection techniques:

- Documentation techniques

This documentation technique is used to collect data from student report cards at SDN 1 Singkil. This data was taken from the 5th-grade sports subject teacher.

- Hands

The tests used to obtain data were cognitive and psychomotor tests for breaststroke swimming. By using secondary data, a cognitive test (cognitive pretest) that can be carried out is giving students 10 questions over 2 meetings and a cognitive test (cognitive posttest) which can be carried out over 10 meetings regarding breaststroke swimming. Questions are given once. Namely cognitive pretest and cognitive posttest. With 2 final grades obtained by the PJOK SDN 1 Singkil subject teacher. For the psychomotor test obtained using secondary data, the PJOK SDN 1 Singkil subject teacher carried out a pretest and posttest for breaststroke swimming as far as 3 meters with basic techniques and got the final score. The assessment stages carried out to assess breaststroke swimming with push-up exercises are:

1. Position

- Body: straight
- Hands: straight forward and swing from front to side repeatedly
- Legs: swing from top to bottom

2. Movement
   - Perform swinging movements using your hands and assisted with your feet
   - Do it over and over again

Table 1 Scoring table

Score	Criteria
1	Perfect
0,75-0,99	Very well
0,50-0,75	Good
0,25-0,50	Enough
0,00-0,25	Less

Source: santosa 2015

Table 2 results of different test analysis

Variable	**Test**	**Mean**	**Difference**	**Enhancement**	**Sig.**
Knowledge	Pre-test	78			
	Post test	88			
Skills	Pre-test	71			
	Post-test	84			

The instruments for this research are as follows:

1. Initial test (pretest)

To obtain initial test data (pretest), a freestyle swimming accuracy test is carried out, namely freestyle swimming according to the target determined by the swimmer himself. The way to calculate freestyle swimming accuracy is by a swimmer doing 3 trials and the total result is the sum of each called the total score. Tools and materials needed to calculate scores.

a. Flute
b. Stopwacth

Overall, this research was carried out over 5 meetings which were divided into 3 initial test activities, treatment or program implementation, and a final test.

2. Final test (posttest)

After the athlete or student has tried (testee) for 12 meetings, a final test is held. This test aims to obtain final data as a result of researchers, so that we can know the differences in results achieved after carrying out training for 12 meetings. From the results of this final test, it can be seen that the testee's skills have increased in freestyle swimming accuracy after receiving push training

Data analysis technique:

To prove the hypothesis that has been formulated and answer the problems that arise in this research, all data that has been obtained is analyzed using statistics, namely the t-test formula at a significance level of 95% and a – 0.05. The steps taken in data analysis are as follows:

- Calculating the average value (mean)

To determine the average value of ability, the author uses the average formula proposed by Sudjana (2002:67) as follows:

$$X = \frac{\sum X}{n}$$

Note:

X = calculated average value

$\sum X$ = Total score X

n = number of research samples

- Calculation of standard deviation

Standard deviation is calculated using the formula proposed by Johnson (1990:18), namely:

$$SD = \sqrt{\frac{n(\sum x^2 - \sum x)^2}{n(n-1)}}$$

Note: SD = standard deviation

$\sum x^2 \sum x^2$ = total score X times X

$\sum x \sum x$ = total score X

n = number of research samples

- Two average object test (t.test)

After all the test results have been collected, the data is analyzed or processed using the t-test statistical method according to the formula proposed by Sudjana (2001:239), namely:

$$t = \frac{x_2 - x_1}{\sqrt{\frac{s_1^2(N-1) + s_2^2(N-1)}{N+N-2} X \frac{N+N}{N.N}}}$$

note :

t = Average object calculated
X1 = Sample average before being given training
X2 = Sample average after being given training
S1 = Initial test results
S2 = Final test results
N = Number of samples

RESULTS AND DISCUSSION

1. Research result

a. Pretest and posttest results Basic breaststroke swimming techniques and push up exercises

The research was carried out in two stages, in the first stage of the research the researchers carried out basic breaststroke swimming techniques before doing the exercises push up, while in the second stage of the test, the researcher carried out the test after following the exercise push up. Researchers conducted a breaststroke swimming test on 20 SDN 1 SINGKIL students. The first test is carried out when students have not been given practice. The test results can be seen in the following table:

Table 3. Pretest and posttest results before treatment

No	Student's name	from the priest	Posttest
1	QR	65	73
2	AB	70	91
3	SM	78	105
4	FOR	60	80
5	RZ	55	113
6	WITH	75	85
7	TF	78	80
8	ZK	73	85
9	SMN	68	82
10	this	79	75
11	ZF	74	75
12	FT	58	83
13	NB	65	91
14	AND	73	80
15	AA	67	90
16	AM	59	98
17	MF	74	88
18	ZN	69	80
19	YG	69	95

20	RF	74	85
		1374	1729

Table 4: Pretest and posttest results after treatment

No	Student's name	Pretest	mail test
1	QR	65	73
2	AB	80	91
3	SM	78	80
4	FOR	60	80
5	RZ	55	81
6	WITH	75	85
7	TF	78	80
8	ZK	73	85
9	SMN	68	82
10	this	79	75
11	ZF	75	75
12	FT	58	83
13	NB	65	91
14	AND	73	80
15	AA	67	90
16	AM	59	98
17	MF	74	88
18	ZN	70	80
19	YG	69	95
20	RF	74	85
		1386	1669

From the research results in the table above, it can be seen that the total number of scores in the initial test (pretest) of basic swimming technique skills carried out by SDN 1 Singkil students was 1386 and in the final test (posttest) of basic swimming technique carried out by students of SDN 1 The number of Singkil is 1669.

2. Discussion

a. Pretest discussion

Based on the results of the basic breaststroke swimming technique test as shown in the table above, the data obtained is then continued to look for the average value as follows:

1. Calculating the average prestest value for basic breaststroke swimming techniques

Based on the results of the basic breaststroke swimming technique test for female students at SDN 1 Singkil, as shown in table 3 above, the researcher can then determine the average score as follows:

$$X = \frac{\sum X}{N}$$
$$= \frac{2760}{20}$$
$$= 138$$

Based on the data above, it can be seen that for data pretest with a sample of 20 having an average value of 138. Then the sample is given treatment namely practice. After the sample is providedteartment the posstest is done as a whole.

b. Posttest discussion

Based on the results of the basic breaststroke swimming technique test for female students at SDN 1 Singkil, as shown in table 4 above, the researcher can then determine the average score as follows:

$$Y = \frac{\sum Y}{N}$$
$$= \frac{3338}{20}$$
$$= 166{,}9$$

Based on the posttest results data above, it can be seen that the posttest score (after being administered) with a sample of 20 has an average score of 166.9. Meanwhile, the pretest (before treatment) with a sample of 20 had an average score of 138.

c. Calculation of Standard deviation values

Next, to find the standard deviation based on the results of the pretest and post-test scores as shown in the table below, the standard deviation can be determined.

Based on the test results of the pretest scores as shown in Table 4.2 above, the standard deviation can then be found using the Johnson formula (1990:18) as follows:

$$SDX = \sqrt{\frac{n(\sum X^2 - \sum X)^2}{n(n-1)}}$$
$$= \sqrt{\frac{20(196575) - (1374)^2}{20(20-1)}}$$
$$= \sqrt{\frac{3931500 - 1887876}{380}}$$
$$= \sqrt{\frac{2043624}{380}}$$

$$= \sqrt{681208}$$
$$= 825{,}353$$

From the above calculations, the pretest standard deviation for basic breaststroke swimming techniques for SDN 1 Singkil students is 825.353.

1. Calculating Posttest Standard Deviation for basic breaststroke swimming techniques

Based on the results of the post-test scores as shown in Table 4.2 above, the standard deviation can then be determined using the Johnson formula (1990:18) as follows:

$$SDY = \sqrt{\frac{n(\sum Y^2 - \sum Y)^2}{n(n-1)}}$$
$$= \sqrt{\frac{20(152296) - (1729)^2}{20(20-1)}}$$
$$= \sqrt{\frac{3045920 - 2989441}{380}}$$
$$= \sqrt{\frac{56479}{380}}$$
$$= \sqrt{148{,}62}$$
$$= 13$$

From the above calculations, the posttest standard deviation of basic breaststroke swimming techniques for SDN 1 Singkil students is 13.

Discussion:

Visual video media is a cheap and affordable form of learning media. Once we buy tape and equipment, such as a tape recorder, there is almost no need for additional costs, because the tape can be erased after use and a new message can be recorded again. Besides attracting and motivating students to learn more about the material, video material can be used to convey information from the source to the recipient.

In arguing that videovisual materials can provide many benefits as long as the teacher plays an active role in the learning process. The relationship between teachers and students remains the most important element in today's modern education system. (Azhar Arsyad, 2014: 27)

Swimming is an effort to move (float or lift) all parts of the body above the surface of the water. Swimming is often done without equipment or assistance. So, in swimming you use more of your body parts, especially your hands and feet, to move or float in the water. Swimming is a very fun water sport. Swimming is beneficial for the strength of the body's muscles, heart and lungs and awakens feelings of courage Erlangga (2010:75)

Breaststroke can be interpreted as frog swimming because the body position resembles the movement of a frog when performing swimming movements. Breaststroke is one of the swimming styles where the chest is facing the surface of the water. Then both arms are swung from front to back alternately. At short distances breaststroke swimming will look more perfect than at long distances, so that small breaststroke swimming movements can be seen with errors. With swimming speed, the breaststroke is obtained by swinging both hands alternately.

Based on the research results, it is known that there is a slight influence of the use of visual videos for learning basic swimming techniques and push-up exercises on breaststroke swimming ability at SDN 1 Singkil. These results show that the basic breaststroke swimming technique is influenced by several other factors, only 22.6 The basic technique of breaststroke swimming is influenced by push-up exercises. From the calculations of the two tests, the average push-up exercise is good enough to contribute to the basic technique of breaststroke swimming.

Figure 1.2 Basic swimming style technique

The picture above shows that the average basic technique for breaststroke swimming is push-up training at SDN 1 SINGKIL. Of the 20 students, there are 22.6 in the poor category.

CONCLUSION

Based on the results of research data calculations and discussions, the conclusion that can be drawn is that the influence of visual video media has little influence on the basic techniques of breaststroke swimming and push up training at SDN 1 Singkil. So the results of research conducted at SDN 1 Singkil show that visual video media is influenced by several other factors, because only 22.6 Of course, basic swimming techniques are influenced by push up exercises. From the calculation of the two tests, the average push up exercise both contributed to the visual video media of basic breaststroke swimming techniques.

SUGGESTION

The suggestions that researchers can give regarding research results and conclusions include:

1. In providing the program, the influence of the use of visual videos on learning basic swimming techniques and push exercises on breaststroke swimming ability at SDN 1 Singkil provides push-up exercises so that you have arm muscle strength and accuracy in breaststroke swimming.

2. The principal of the school gave a little input to the corner teacher regarding physical education subjects, more specifically swimming lessons, because the school does not have facilities, namely a swimming pool. And for sports teachers to hone students' skills more because researchers have seen that the coach's enthusiasm is there and his skills are not being honed enough.
3. For future researchers, the results of this study can be used as reference material, especially research related to breaststroke swimming with push exercises.

REFERENCES

Amin, M. Y. (2018). Peran Olahraga Dalam Membangun sdm Unggul di Era Revolusi Industry. *4.0*, 21(8).

D,W,Y, S. K., & R. T. (2017). Latihan Plypmetrics dan Panjang Tungkai Terhadap Kecepatan Renang Gaya Dada Atlet Renang Sumatera Selatan. *Journal Of Physical Education and Sports 6(3)*, 266-271.

D. W. (2010). Dimensi Teknologi Pembelajaran Pendidikan Jasmani dan Olahraga Malang. *Wineka Media*, 2(9).

H. S. (2011). Efektivitas Pemanfaatan Media Audio Visual Sebagai Alternative Oplimalisasi Model Pembelajaran. *Jurnal Edukasi Elektro*, 5(1),1-10.

I. A., & S. P. (2013). Pengaruh Metode Latihan dan Koordinasi Terhadap Power Tungkai Atlt Bola Voly Junior Putri. *Jurnal keolahragaan*, 1(1),1-12.

R. M., & M. B. (2019). Pengaruh Media Papan Luncur dan Pull Bouy Pola Metode Drill Terhadap Hasil Belajar Teknik Dasar Renang Gaya Bebas. *jurnal kepelatihan olahraga*, 112-123.

S. S., & R. H. (2019). Pengembangan Pembelajaran Renang Melalui Pendekatan Bermain Motor Boat Estafet. *Active; Journal Of Physical Education,sport,health and recreation*, 1(5),243-245.

Salman E. (2018). Konstribusi VO2 Max Kemampuan Renang Gaya Dada 200 Meter. *Jurnal Pendidikan Jasmani Dan Olahraga*, 21-31.

Supridi, M. (2018). Pelaksanaan Proses Belajar Mengajar Pendidikan Jasmani Olahraga dan Kesehatan Pada Sekolah Dasar. *jurnal pendidikan jasmani dan oalahraga*, 64-73.

T. M., & G. M. (2019). Peningkatan Hasil Belajar Dribbling Sepakbola Dengan Penggunaan Video Visual . *Jp,Jok (jurnal pendidikan jasmani,oalahraga dan kesehatan)*, 3(1), 43-54.

Fajar Abrianto Nugroho, & Fikfukha dwi khory. (20202). pengaruh media audio visual dan latihan drill terhadap hasil belajar renang gaya dada. *pendidikan olahraga dan kesehatan volume08*, 137-142.

Harsono. (2015). Kepelatihan Olahraga. *pt remaja rosdakarya*.

Penney, S. (2019). powering throgh th push-up variantions and progressions. *http;//blog.nasm.org/fitnes/powering-pushvariantions-progressions*.

BIBLIOGRAPHY \l 1057 krisdiyandaru, A. (2010). Manajemen pendidikan jasmani dan olahraga. *unesa universty press*.

Sukadiyanto. (2010). Konsep Dasar Latihan Fisik. *yogyakarta UNY*.

BIBLIOGRAPHY \l 1057 Sugiyono. (2010). Metode Penelitian Kuantitatif Kualitatif dan R-D. *BANDUNG Alfabeta*.

Suharjana. (2013). kebugaran jasmani. *jogja global media*.