Swimming Backstroke Using Aqua Noodle

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Abstract—**The purpose of this study was to determine the effect of aqua noodle media on backstroke swimming skills. Population and sample of research are male and female student counted 30 people using total sampling technique. The experimental method with one group pre-test post-test design. The results showed that aqua noodle media had an influence on the mastery of backstroke swimming skills. There are several other factors that influence among others is the formation, confidence, and motivation.**

Keywords: aqua noodle, backstroke, swimming

I. INTRODUCTION

One of the aquatic branches that are becoming popular among the people today. Children to adults simply love sports that show the style of swimming with a swimming style. In fact, swimming is often reported as the most common recreational activity among children, with more than 16 million participants every year [1]. Swimming is considered a physical activity with a very beneficial effect on body development, from the process of general growth, hardening and strengthening the body's resistance and increasing the overall capacity of the effort [2]. Aqua noodle is a tool used in the learning process. This tool does not use buoys or assistive devices in other rooms, which is higher than the level of mastery of techniques that will be more easily achieved [3]. By using this tool, you can help lifestyle mastery among students. Maximizing the use of media, especially aqua noodle, will be one of the latest breakthroughs in swimming learning, coaches and athletes can work together to make the time and performance of their motion techniques effective. The media develops new interests, leisure time skills, offering new choices for entertainment and culture in the busy environment of school children [4]. Thus it will be the starting point that the use of media is very useful to produce positive results.

Backstroke is one of the styles learned in schools, from junior high school to college. In universities, especially physical and recreational physical education study programs, all students are required to master the basic backstroke swimming technique in the first semester of college. This is to create students who are ready to accept the challenges in the global era and are able to defend themselves while in the water. Because backstroke is one of the styles for rescue under certain conditions. The air that is inhaled when swimming backstroke is maximal compared to other styles, this is because the body's back style faces face up so that when swimming can freely breathe air. There is little information in the literature describing the oxygen demand of backstroke swimming in highly proficient swimmers [5]. Could aid in both interpretations of oxygen uptake during backstroke in relation to technique-related factors, and interpersonal comparisons of submaximal oxygen costs [6].

II. METHOD

The sample of this study is a student of UKM Aquatic PJKR STKIP Pasundan with a total of approximately 30 people. Divided into two groups at the same level between the control group and the experimental group. Sampling using purposive sampling technique. The purposive sampling technique, also called judgment sampling, is the deliberate choice of information due to the qualities of the informant possesses. It is a non-random technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out. This research method is an experimental method. Experimental research can be interpreted as research which involves manipulation of the condition of the subject under study, accompanied by strict control of external factors and involving comparative subjects or systematic scientific methods that are carried out to establish relationships involving causal phenomena [1]. The research design is the control group pretest-posttest design. The following is a mapping of research design.

TABLE I.   TWO GROUP PRETEST-POSTTEST DESIGN

Group	Pre-test	Treatment	Post-test
Eksperiment	O_1	X	O_2
Control	O_1	-	O_2

Information:
O1   : Initial test of backstroke
X   : Learning using the aqua noodle
O2   : The final test of backstroke.

III. RESULTS AND DISCUSSION

TABLE II.   CALCULATING THE STANDARD DEVIATION

Group	Test period	Average	Standard deviation
Group A	Initial test	25,5	3,36
	Final test	30,8	4,49

From the table above, it is known that in the backstroke skill group, the average initial test results are 25.5 and the average final test is 30.8 and the standard deviation of the initial test results is 3.36 and the final test standard deviation is 4 , 49.

TABLE III.   CALCULATION RESULT OF THE INITIAL TEST NORMALITY TEST

Group	Lo count	L list		Result
		0,05	**15**	
Group A	0,0901	0,220		Normal

In the exercise using aqua noodle in backstroke, a calculated Lo of 0.0901 from the calculation shows that the calculated Lo value for the increase in exercise results is smaller than the L table of 0.220. So it can be concluded that the initial test data has a "Normal" distribution.

TABLE IV.   CALCULATION RESULTS OF THE FINAL TEST NORMALITY TEST

Group	Lo count	L list	Result
		15 : 0.05	
Group A	0,1936	0,220	Normal

In the exercise group using aqua noodle in backstroke swimming, it was obtained that the calculated count was 0.1936 from the calculation, it is known that the calculated Lo value for the increase in exercise results was smaller than L table 0.220. Then it can be concluded that the final test data has a "Normal" distribution.

TABLE V.   CALCULATION RESULTS GROUP A

Group	Test period	$(\bar{x})$	Standard deviation (S)	t count	t Table (0,975: 28)	Result
A	Pre-test	25,5	3,36	-3,63	2,048	significance
	Pos-test	30,8	4,49			
Enhancement		5,3	1,13			

The calculation results show that the group t count is the exercise using aqua noodle in backstroke -3.63 outside the t table area at a 95% confidence level with the result of t table 2.048. Thus, the practice of using aqua noodle in backstroke gives a significant influence.

From the results of data processing the use of aqua noodle with swimming techniques in the back style is known to have significant results [7]. In this case the existence of media or aqua noodle provides positive support for swimming techniques in backstroke. So it can be interpreted that in the learning there are students who have poor abilities, with the existence of these media, it is easier to do backstroke swimming which tends to have a complex level of movement in the sense that all body members move. The movement is realized in the water with the help of the arms and legs [8,9]. A media or aqua noodle is very supportive in training or learning [10,11]. Learning media in general is a tool for teaching and learning processes that are very helpful to open up insights and demand that students are able to be creative in stimulating thoughts about the use of learning media. Learning media can also be interpreted as a tool or means or intermediary used in the ongoing interaction process between the teacher and students to encourage the teaching and learning process with the aim of gaining knowledge, skills and strengthening what is learned and helping to achieve quality learning goals. The characteristics and capabilities of each media need to be addressed by the teacher so that they can choose which media suit the conditions and needs [12]. This is because the media acts as a learning stimulant and can foster learning motivation so that students are not easily bored following the teaching and learning process [13].

IV. CONCLUSIONS

From the discussion that has been raised about swimming backstroke using aqua noodle the author gives the conclusion that, swimming using aqua noodle provides a positive response to improve swimming ability for beginners in backstroke swimming. Swimming using aqua noodle also becomes significant in increasing swimming style for beginners. By referring to the conclusions in this study, the author suggests the teacher or swimming trainer to apply the use of aqua noodle in the training process and in the learning process. Practically, students learn various kinds of learning media used in swimming learning, especially in backstroke swimming and are expected to be able to use the media optimally so as to facilitate learning. Hopefully with this research, researchers and writers will find another learning media that is more varied and innovative.

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