Effect of Aqua Noodle on Butterfly Swimming

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Abstract: The purpose of this study was to find out that aqua noodle has a significant or no influence on the learning of butterfly swimming. The sample in this research is 85 students with purposive sampling technique. Research method using experiment method. The result of data analysis with t count 9.685 bigger than t table 1.65, then the hypothesis is rejected. Meaning can be concluded aqua noodle media give influence high enough in studying swimming butterfly style.

1 INTRODUCTION

Physical education (PE) during school provides an opportunity for children to be physically active (Boris, 2016). Media has a very important role in delivering messages from teachers to learners. Media development of new interests, leisure time discipline, choice of new choices for entertainment and culture in the busy environment of school children (Maria, 2014). Aqua noodle becomes an important part in swimming learning, it has buoyancy and is high enough when it is in the air. Learning swimming with aqua noodles can be just as effective. The material is lighter and more flexible when in the air it provides resistance with little pressure on its part (Cuc, 2014 & Silviu, 2014). Aqua noodle can be introduced in all types of air therapy, aerial sports and sports areas in swimming pools, lakes, sea, rivers or sports, in recreational programs, in therapeutic and fitness enhancement activities. (Michele, 2017 & Balan, 2015) This tool is not as buoyant as a buoy or aids in other pools, the buoyancy is higher than the float mastery technique pool will be more easily achieved. Once the aqua noodle is a new breakthrough in recognizing the style in swimming or other air activity. There will be many teaching methods or variations in learning and air activity for both childhood and old age. Variations of learning that arise from one tool, it will be easier to teach to students starting from the heating up to. The teacher must design detailed his/her activity which he/she will be done for having efficiency in all that he or she will teach (Seifert, 2008).

Swimming is the only sport to be recommended in more than 80% of the medical cases and to have a large target audience, accessible to both children and the elderly. From a psychological perspective, swimming reduces the mental tensions and anxiety, caused by everyday stress and the competition one, while avoiding hostility and frustration in life, in a beneficial way (Cecil, 2001). Swimming is the successive motion of propulsive and recovery movements in the water. Analysis of the swimming motion can be provided to swimmers and coaches for improvement of performance. It is important tounderstand the underwater motion in order to improve swimming technique (Solihin, 2016).The style is a series of techniques that are in the process of swimming, the force becomes one of the important parameters to calculate the speed of motion in the swim (Pan, 2013). Butterfly swimming is one style that has a high enough coordination level with the other three styles. Butterfly style is similar to other previous styles when the arms are straightened, the waist movement should be flexed up and down, whisk the hard legs while in the air, the two rhythms of the movement of the foot and then proceeded with a straight pull from the arm simultaneously and breathing (Tomihiro, 2004). This ability is in some ways both external and internal. Parameters such as speed, distance, arm span and arm and leg coordination while studying the butterfly pool by motion, age, experience and gender (Shinichiro, 2010).

2 METHODS

The sample of this research is STKIP Pasundan students with 85 students consisting of 1G, 1H, and 1M class, through purposive sampling technique. The method of this research is an experimental method. The research design is one group pretest-posttest design. Clear mapping of research design can be seen from the following table:

Table 1: One Group Pretes Postest Design.

Pretest	Treatment	Posttest
O_1	X	O_2

Annotation:
O1   : Pretest butterfly
X   : Learning used aqua noodle
O2   : Posttest butterfly

3 RESULTS

The following is the result of statistical tests of the effect of aqua noodle in a butterfly swimming.

Table 2: Test Normality with Liliefors Approach.

Test result	L count	L table (85: α = 0.05)	Conclusion
Pretest	0.0333	0.0961	Normal
Posttest	0.0870	0.0961	Normal

The test results of the initial test normality are 0.0333. With the help of the critical table L for Lili for the test with the number of samples 85 and α 0.05 then obtained L of 0.0961. Therefore Lo (0.0333) <(0.0961), then the hypothesis is accepted or in other words, can be formulated that the distribution is NORMAL. Seen from the above table it can be concluded that the test result of normality of posttest is 0.0870. With the help of the critical table L for Lili for the test with the number of samples 85 and α 0.05 then obtained L of 0.0961. Therefore Lo (0.0870) <(0.0961), then the hypothesis is accepted or in other words, can be formulated that the distribution is NORMAL.

Table 3: Homogeneity Test Two Variance.

Test	F count	F table	Conclusion
Butterfly swimming	0.6412	1.4347	Homogen

The value of F count (0.6412) < F table (1.4347) with α 0.05 and dk (84:84), so it can be concluded that the butterfly swimming from the implementation of the pretest and posttest is HOMOGEN.

Table 4: Test of Significance with Equivalent Two Towitude Approach.

Test	T count	T table	Conclusion
Butterfly swimming	9.685	1.65	Significant

Based on the result that shows that at the real level = 0.05 with dk (n1 + n2-2) that is (1.65) then obtained a value for t count (9.685) > t table (1.65), the hypothesis (Ho) rejected. So the conclusion is that aqua noodle gives a significant influence on butterfly swimming

4 DISCUSSION

The result of hypothesis test shows that aqua noodle gives significant influence in the learning of butterfly swimming. The application of aqua noodle in every stage of the butterfly swimming has a positive impact, both psychologically and motorically. Aqua noodle gives a good impression in every face of aquatic lectures, students become more helpful in terms of motion butterfly swimming skills and become more focused and comfortable due to the effects of using this tool, which has high buoyancy and flexibility. Butterfly style is considered difficult by most people, in fact, can easily be mastered through the use of aqua noodle. Creativity and innovation need to be updated in delivering message or learning process to learners, the role of instructional media will provide ease in learning a motion skills in physical education and sports achievement.

5 CONCLUSION

Based on the results of data analysis can be concluded that there is a significant influence of aqua noodle use in swimming butterfly style.

REFERENCES

Balan, V. 2015. Aspects of the swimming lesson design at disabled children. *Procedia-Social and Behavioral Sciences,* 197, 1679-1683.

Boris C. 2016. *Developmental trajectories of physical activity during elementary school physical education.*

Cecil M. C. 2001. *Breaktrhrough swimming.* 30.

Cuc M. C. 2014. *The influence of media on formal dan informal education. Procedia-Social and Behavioral Science 143, 68-72.* This is an open access article under the CC BY-NC-ND license.

Pan M. S. 2013, et al. *Using accelerometer for counting and identifying swimming strokes.* Volume 31, pp (37-49).

Seifert, L., Boulesteix, L., Chollet, D., Vilas-Boas, J. P. 2008. Differences in spatial-temporal parameters and arm–leg coordination in butterfly stroke as a function of race pace, skill and gender. *Human movement science,* 27(1), 96-111.

Shinichiro I. 2010. *Visualization and motion analysis of swimming.* Published by Elsevier Ltd.

Silviu P., et al. 2014. *The effects of practicing swwimming on the psychological tone in adulthood. This is an open access article under the CC BY-NC-ND*

Solihin A. O., Sriningsih. 2016. *Pintar Belajar Renang Dilengkapi CD.* Bandung: CV. Alfabeta. p. 41.

Tomihiro S. 2009. *Water Exercises.*