

**MANIPULATIVE MOTION LEARNING APPROACH TO BASIC TABLE TENNIS
 TECHNIQUE SKILLS OF PUBLIC ELEMENTARY SCHOOL 1 CIHERANG STUDENTS**

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Abstract

Manipulative motion is something that is used to apply active motion to elementary school students, even manipulative motion can involve students in the activeness of student movement. With the aim of this research is to apply manipulative motion to the basic techniques of table tennis regarding *forehand* and *backhand* students of SDN 1 Ciherang. In this study the authors used the pre-experimental method. The population consisted of 15 students at SDN 1 Ciherang. The author uses a sample of 15 students. To apply manipulative motion to the application of table tennis basic techniques to students at SDN 1 Ciherang. Descriptive statistical analysis *pretest* the experimental group consisted of 10 grade V students at SDN 1 CIHERANG, for the experiment, the minimum score = 8, the maximum score = 12, the average = 9.40 and the standard deviation = 1.50. Analysis *pretest* the control group of 10 students obtained a minimum value = 8, a maximum value = 11, an average value = 9.30 with a standard deviation = 1.05. Analysis *posttest* experimental group and control group on 10 grade V students of SDN 1 CIHERANG, for *posttest* the experimental group obtained a minimum value = 10, a maximum value = 14, an average value = 11.70 with a standard deviation = 1.49. *Posttest* the control group obtained a minimum value = 9, a maximum value = 14, an average value = 11.30 with a standard deviation = 1.76.

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INTRODUCTION

Physical education is learning that is able to create active learning situations for all time, and has an overall system that is able to develop children both individually and in groups. Which will produce the ability (*interpretive*), emotional and moral, spiritual,

whose learning process uses physical activities learning healthy living (Ardi et al., 2013). Education is one of the foundations that is designed and regulated in such a way by the character of education, in order to understand *out put* who are highly insightful and can compete in the job market (Wani, 2020).

The introduction of learning must be given because it requires readiness to carry out basic techniques, and also the teacher or trainer must be ready to provide material regularly so that students can apply it properly and have high motivation. This is in accordance with the opinion of Drake (2001, p. 5) that activities must be introduced to students who study on a basic basis so that the focus is planned, because it can motivate students to have higher enthusiasm and also students have a desire to learn (Purwanto & Suharjana, 2017).

According to (Hamalik, 2008) education is learning that is intended to influence students to adapt to where their environment is. A process in which a person must be able to go through various educational pathways. The process must be able to be passed in order to experience various educational flows (Wani, 2020).

Table tennis learning is one of the selected sports in physical education learning. Where students have to learn the basic techniques of hitting in table tennis, one of the materials that must be learned so that students can master it. Specifically, the movement can be seen from the service stroke, where the basic motion mastered determines the smoothness of the service (Yarmani et al., 2019).

Based on the background of the problem, it is expected that learning table tennis can be learned through active and creative media so that students have an interest in doing this learning. So that students' skills in mastering techniques can be better and more optimal according to the learning criteria given (Yarmani et al., 2019). With the solutions that have been taught in the introduction of basic table tennis techniques, that requires a media that can be a solution to problems in existing students. Table tennis learning can be developed by motivating students, so students can recognize and understand quickly and students will not experience boredom quickly. And also don't forget that equipment and regulations are modified according to the needs of students so that they have attractiveness (Purwanto & Suharjana, 2017).

RESEARCH METHODS

The research method in this study was a pre-experimental research method with a quantitative research type. (Sugiyono, 2013) states that pre-experiment is a design that includes only one group or class that is given pre- and post-tests. The purpose of using this method is to obtain information or data from a sample group under study. In this study there was one group that compared the results *pretest* and *posttest*.

From the description above, the pre-experimental method was carried out to determine the effect of a treatment. The treatment in this study is the learning approach to the basic techniques of table tennis for the group to be studied.

RESULTS AND DISCUSSION

Based on the research results of the initial test or *pretest* in class 5 students at SDN 1 Ciherang and given treatment or learning approach training for 8 meetings and after that a final test or *posttest*. To see whether there is a change or not after being given treatment or training for 8 meetings. Here are the results *pretest* and *posttest*

Results

Tabel 4.2 Deskriptif Statistik *Pretest*

dan *Posttest*

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
pretest eksperimen	10	8	12	9.40	1.506
posttest eksperimen	10	10	14	11.70	1.494
pretest control	10	8	11	9.30	1.059
posttest control	10	9	14	11.30	1.767
Valid N (listwise)	10				

Descriptive statistical analysis *pretest* the experimental group consisted of 10 grade V students at SDN 1 CIHERANG, for the experiment, the minimum score = 8, the maximum score = 12, the average = 9.40 and the standard deviation = 1.50. Analysis *pretest* the control group of 10 students obtained a minimum value = 8, a maximum value = 11, an average value = 9.30 with a standard deviation = 1.05.

Analysis *posttest* experimental group and control group on 10 grade V students of SDN 1 CIHERANG, for *posttest* the experimental group obtained a minimum value = 10, a maximum value = 14, an average value = 11.70 with a standard deviation = 1.49. *Posttest* the control group obtained a minimum value = 9, a maximum value = 14, an average value = 11.30 with a standard deviation = 1.76.

Discussion

Based on the analysis of research data, it was obtained a significant increase in the experimental and control groups that were examined. Giving basic technical test treatment with a period of 8 meetings.

It can be seen that the learning approach to the basic technique of table tennis on the manipulative movement abilities of students at Public Elementary School 1 Ciherang, descriptive statistical analysis *pretest* the experimental group consisted of 10 grade V students at SDN 1 CIHERANG, for the experiment, the minimum score = 8, the maximum score = 12, the average = 9.40 and the standard deviation = 1.50. Analysis *pretest* the control group of 10 students obtained a minimum value = 8, a maximum value = 11, an average value = 9.30 with a standard deviation = 1.05.

Analysis *posttest* experimental group and control group on 10 grade V students of SDN 1 CIHERANG, for *posttest* the experimental group obtained a minimum value = 10, a maximum value = 14, an average value = 11.70 with a standard deviation = 1.49. *Posttest* the control group obtained a minimum value = 9, a maximum value = 14, an average value = 11.30 with a standard deviation = 1.76.

Testing the normality of data distribution using *Kolmogorov-Smirnov Test* with the help of SPSS 25. The rule used to determine whether a distribution is normal is if $p > 0.05$ then

normal, otherwise if $p < 0.05$ the distribution is said to be abnormal. Based on the normality test table above, it can be seen the results of the normality test using *Kolmogorov-Smirnov* and *Shapiro-wilk pretest and posttest* In Improving Learning Outcomes the learning approach to basic table tennis techniques uses manipulative motion, all significance values have a value of > 0.05 , it can be concluded that the data is normally distributed.

The homogeneity test is useful for assessing the similarity of the sample, namely uniformity or not, the sample variance taken from the population. Homogeneity rule if $p > 0.05$ then the test is declared homogeneous, if $p < 0.05$ then the test is said to be inhomogeneous. Based on the results of the two variance homogeneity test output using *test of homogeneity of variances* using SPSS 25 shows that the output value *pretest and posttest* in improving the learning outcomes of the table tennis basic technique learning approach all significant values are greater than 0.05, it can be concluded that there is no difference in variance between the scores *pretest and posttest* (homogeneous).

Based on output T test results (*Paired Sample T-Test*) above, value the significance *pretest and posttest* the experimental group showed a significance value of 0.000 < 0.05 , and results *pretest and posttest* the control group was 0.001 > 0.05 , with these results indicating a significant value in the experimental group before and after the experiment *treatment* while the results *pretest and posttest* the control group had no significant results, so it can be interpreted that there was an influence of the table tennis basic techniques learning approach on the manipulative movements of elementary school students 1 ciherang.

Giving this treatment is done by providing basic technical movements by throwing and hitting, and also bouncing the ball over the bet by walking straight to the finish line. *Treatment* given 8 meetings.

CONCLUSION

Based on the results of research that has been obtained that the value output T test results (*Paired Sample T-Test*) significance value *pretest and posttest* the experimental group showed a significance value of 0.000 < 0.05 , and

results *pretest* and *posttest* the control group is $0.001 > 0.05$, with these results indicating a significant value in the experimental group before and after the experiment *treatment* while the results *pretest* and *posttest* the control group did not show significant results, which means that there was an influence of the basic technique learning approach on the manipulative abilities of students at Ciherang 1 Public Elementary School.

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