The Effect of Learning Media and Teacher Supervision on the Learning Achievement of Class X Students of SMA Kemala Bhayangkari

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Abstract

This study aims to determine the effect of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari. The research method used in this study is a quantitative method with the class action method. The population in this study were all students of SMAS BHAYANGKARI 2 RANTAUPRAPAT class X-IIS-1 and X-MIA-1, totaling 50 students divided into two classes, namely class control and experimental class. The sampling technique used is probability sampling using cluster sampling (area sampling). The instrument and data collection technique used in this study is a multiple-choice test to measure student achievement. The data analysis technique used is descriptive quantitative with descriptive statistics such as descriptive analysis, normality test, paired sample t-test, independent sample t-test on the results of pre-test and post-test then presented in the form of tables and graphs. Based on the results of the analysis, it is known that the average value of student learning outcomes before and after the application of learning media and teacher supervision on student achievement is 42.56 and 50.56% to 79.16% and 71.44%, respectively. The difference in student learning outcomes between the experimental class and the control class is 15.72% and the effect of learning media and teacher supervision on the learning achievement of class X students at SMA Kemala Bhayangkari is 36.6% and the ratio of improvement between the experimental class and the control class is 7.72%.

I. Introduction

Since December 2019 the country has experienced a global pandemic, namely an outbreak of a new virus called Coronavirus Disease. Covid-19 is a new type of disease that has never been identified before in humans. On March 2, 2020, two cases were first confirmed in Indonesia, then 790 cases in the third week (Wulandari et al., 2020). The government through the ministry of health issued the Minister of Health Regulation No. 9 of 2020 concerning Guidelines for Large-Scale Social Restrictions (PSBB) (Hairi, 2020), which restrictions include closing schools, campuses, workplaces, religious activities, restrictions in place / public facilities, socio-cultural restrictions, and other restrictions that cause crowds to break the chain of transmission of covid-19 (Irfanudin et al., 2020).

Since the implementation of PSBB until now entering 2022, the teaching and learning process has developed. The development of the world of education today is directly or indirectly influenced by the development of science and technology. Recently, various technological products have emerged that can be used in the world of education to improve the quality of education for educators and practitioners by improving the

education and learning process and finding ways that are in line with the development of science and technology to provide opportunities to improve the quality of learning..

Learning is an activity or a process to acquire knowledge, improve skills, improve behavior, attitudes and strengthen personality. Learning is everything that can bring information and knowledge in the ongoing interactions between educators and students. The learning process is a process in which there are interaction activities between teachers and students as well as reciprocal communication that takes place in educational situations to achieve learning objectives. This development also affects teachers and students. At this time teachers are required to be able to integrate technology in every learning activity. Therefore, the use of learning media is a must in every learning process.

Learning media is something that is used to convey messages and information during the teaching and learning process, as well as to attract students' attention and interest in learning. The use of learning media can improve the quality and teaching and learning process which in turn can improve the quality of student learning outcomes. Another important aspect of using instructional media is the clarity of learning messages because verbal information may not be fully understood by students, especially if the teacher is not able to explain the material so learning media act as a tool to communicate the learning message.

In the learning process, supervision from the teacher is also needed so that the learning process with the use of learning media can provide maximum results, especially in student achievement Achievement is basically the result of activities carried out and learning is basically a process that leads to internal changes within the individual. Therefore, learning achievement is the result of activities that cause changes in a person through learning activities. Based on the description above, this study aims to see the effect of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari.

II. Review of Literature

Based on research conducted by Indah Aritonang (Aritonang & Safitri, 2021) concluded that the application of the Blended learning method had an impact on the quality of student learning in terms of mathematical literacy during the corona virus pandemic. In addition, it is known that the effect of the Blended learning method on students' mathematical literacy is 30%, while the conventional learning method only has an effect of 2.44% and it can be concluded that there is a difference in student learning outcomes against the Blended Learning and conventional learning methods with a difference of 24.76%.

Based on research conducted by Marlina in (Simbolon et al., 2021) concluded that there are differences in student learning outcomes who use learning media compared to students who do not use learning media so that can be explained that learning media has a significant effect on student learning outcomes and can be used as an alternative for teachers in improving learning outcomes

Learning media is something that is used to convey messages and information during the teaching and learning process, as well as to attract students' attention and interest in learning (Supartini, 2016) Based on (Rachmawati, 2020) The teacher is someone who is authorized and responsible for guiding and fostering students, both individually and classically, at school and outside school.

Students are community members who seek to develop their potential through the learning process, both through informal, formal, and informal education at certain levels

and types of education (Hapipah, 2022). Based on (Supartini, 2016) Learning achievement is the result of activities that cause changes in a person through learning activities

III. Research Methods

The research method used in this study is a quantitative method with a class action method. Action research is included in the scope of applied research which combines knowledge, research, and action. Action research has similarities with research: participatory research, collaborative inquiry, emancipatory research, action learning, and contextual action research. In simple terms, action research is "learning by doing" which is applied in the context of one's work, in this case students (Mulyatiningsih, 2009) dalam (Ipa, 2020).

This study will look at the effect of learning media and teacher supervision on student achievement based on student learning outcomes. In this research, the writer designed the questions and gave the questions as pre-test and post-test in a class that was divided into two classes..

The population in this study were all students of SMAS BHAYANGKARI 2 RANTAUPRAPAT class X-IIS-1 and X-MIA-1, totaling 50 students divided into two classes, namely the control class and the experimental class. The sampling technique used is probability sampling using cluster sampling (area sampling). (Sharma, 2017).

The instruments and data collection techniques used in this study were multiple-choice tests to measure student achievement, and observations were used to find out how students understood the lesson by applying learning media (Faqih et al., 2021). The data analysis technique used is descriptive quantitative, namely by analyzing data with descriptive statistics such as descriptive analysis, normality test, paired sample t-test, independent sample t-test on the results of pre-test and post-test then presented in the form of tables, graphs (Isnawati et al., 2020). Here is the research framework that the author did:
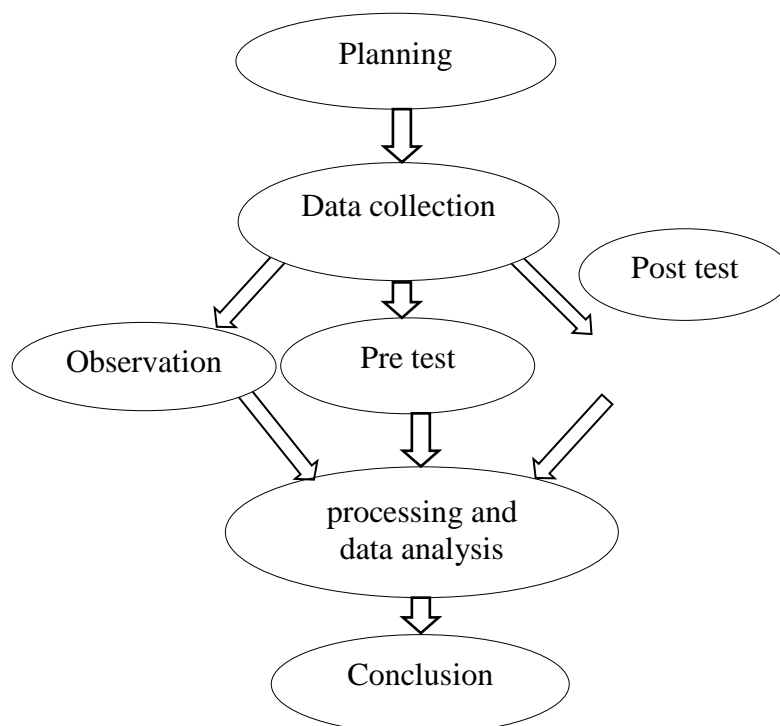

Figure 1. *Theoretical Framework*

IV. Results and Discussion

This study aims to see the effect of learning media and teacher supervision on the learning achievement of class X students of SMA Kemala Bhayangkari. To analyze the results of the success of learning media and teacher supervision on student achievement, it can be seen from changes in student learning outcomes in answering math problems, level of concept understanding, and ways of understanding lessons. The following is a description of the analysis of the influence of learning media and teacher supervision on the learning achievement of class X students of SMA Kemala Bhayangkari

4.1 Deskriptif Data Test

To analyze the data, a Pre-Test and Post-Test were carried out on the experimental class and the control class (Alan & Afriansyah, 2017). Pre-Test and Post-Test are given to students in the form of multiple-choice tests that function to see students' learning abilities and understanding of students' concepts with a test material that is adjusted to the level of students' education. Pre-Test and Post-Test data processing is carried out using MS. Excel and SPSS as research conducted by (Ariskasari & Pratiwi, 2019). The pre-Test is given to students before the implementation of learning media and teacher supervision and Post-Test is given to students after the implementation of learning media and teacher supervision.

Based on the results of the pre-test and post-test, it is known that the number of samples is 25, the minimum value for each class before the implementation is 16 for the experimental class and 20 for the control class, then the maximum value for each class before the implementation is equal to 72 for the experimental class and 76 for the control class. After the implementation in the experimental class, the minimum results for each class are 61 for the experimental class and 35 for the control class. then the maximum value for each class is 95 for the experimental class and 90 for the control class. The following is a chart of improving student learning outcomes before and after implementation:
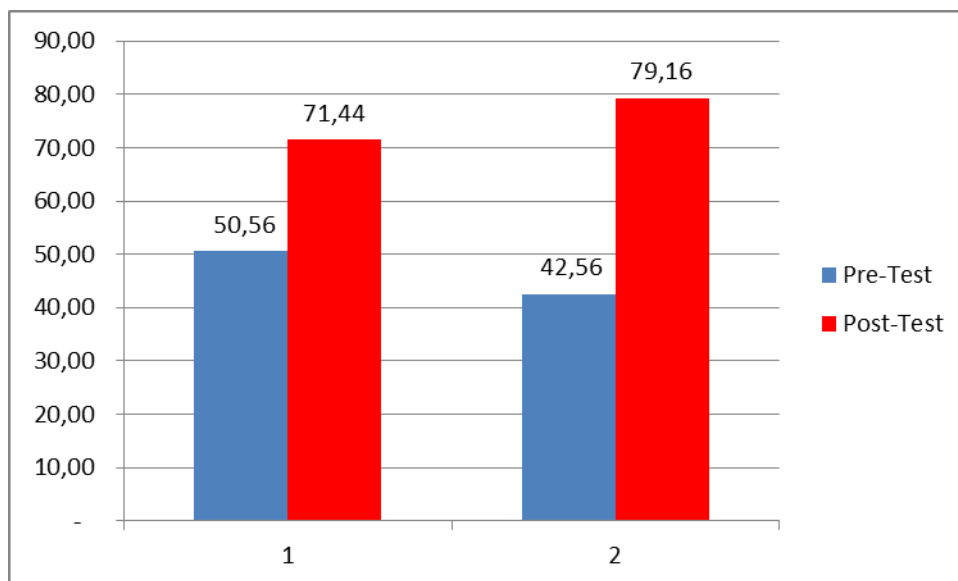
Where:

1 = Control Class

   2   = Ekperiment Class

4.2 Data Testing Analysis

This test aims to prove whether there is an influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari. The following are the results of tests conducted by the author:

a. Normality Test

The purpose of doing Normality is to find out whether the population is normally distributed or not. If the data is normally distributed, then parametric statistical tests can be performed. However, if the data is not normally distributed, nonparametric statistical tests are used. The method used in this normality test is Shaporo Wilk. By using a significant level of 5%. Based on the results of the normality test using SPSS, it is known that the data is normally distributed based on the comparison of the Sig value greater (>) than 0.05. Therefore, a paired sample t-test can be carried out on the data

b. Paired Sample t Test

A paired t-test is one method of testing the hypothesis in which the data used are not independent (pairs). The paired sample t-test is used to determine whether there is a difference in the average of two paired samples. The requirement in the Paired Sample t-test is that the data is normally distributed. Based on the results of the paired-sample t-test, it is known that there is an influence of learning media and teacher supervision on the learning achievement of class X students of SMA Kemala Bhayangkari seen from the comparison of Sig. 0.000 is smaller (<) than 0.05, where the average influence of learning media and teacher supervision on student achievement is 36.6% for the experimental class and 20.88% for the control class..

c. Homogeneity Test

This analysis aims to see the variance of the Pre-Test and Post-Test data for the experimental class and the control class as the same or HOMOGENIC. Based on the results of data analysis, it is known that the Pre-Test and Post-Test of the experimental class and control class are the same or HOMOGEN seen from the Sig value. Based on the mean on SPSS 0.245 is greater (>) than 0.05, thus one of the requirements (not absolute) of the independent sample t-test is fulfilled, therefore an independent sample t-test can be performed

d. Independent Sample t Test

This analysis aims to see the differences in student learning outcomes in the influence of learning media and teacher supervision on the learning achievement of class X students of SMA Kemala Bhayangkari.

Based on the results of data analysis, it is known that the value of Sig. (2-tailed) 0.019 is smaller (<) than 0.05, so it can be concluded that there is a difference in student learning outcomes between the experimental class and the control class in the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari with a difference of 7.72%.

Based on the results of data processing and testing, it can be seen that there is an influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari where the average influence of the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari is 36.6% and the comparison of improvement between the experimental class and the control class was 7.72%.

4.3 Discussion

Based on the results of data processing carried out by researchers, it is known that the number of samples is 50, the minimum value for each class before the application of learning media and teacher supervision of student achievement is 16 for the experimental class and 20 for the control class, then the maximum value for each -each class before the application of learning media and teacher supervision on student achievement was 72 for the experimental class and 76 for the control class. After the implementation in the experimental class, the minimum results for each class are 61 for the experimental class and 35 for the control class. then the maximum value for each class is 95 for the experimental class and 90 for the control class. It is known that there is an influence of learning media and teacher supervision on the learning achievement of class X students of SMA Kemala Bhayangkari seen from the value of Sig. $0.000 < 0.05$ where the average effect is 36.6% for the experimental class and 20.88% for the control class. From the results of the normality test, it can be seen that the data is normally distributed as seen from the value of $Sig > 0.05$ and it is known that there are differences in student learning outcomes between the experimental class and the control class in the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari with a difference of 7.72%. based on the value of Sig.(2-tailed) $0.019 < 0.05$.

V. Conclusion

Based on the results of research and data processing that have been discussed previously in the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari, the authors provide the following conclusions:

1. Based on the results of the analysis, it is known that the average value of student learning outcomes before and after the application of learning media and teacher supervision on student learning achievement where the average value of the experimental pre-test is 42.56 and the control pre-test is 50.56% to 79.16% for experimental post-test and 71.44% for control post-test.
2. Based on data analysis, it is known that there is a difference in student learning outcomes between the experimental class and the control class in the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari is 15.72%.
3. Based on the results of data processing and testing, it can be seen that there is an influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari where the average influence of the influence of learning media and teacher supervision on student achievement in class X SMA Kemala Bhayangkari is 36.6% and the comparison of improvement between the experimental class and the control class was 7.72%.

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