

Comparative Study: The Use of Online and Offline Learning Media

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Abstract. Today, in this age of the Internet and electronics, components of a rich multimedia environment such as images, videos, and video animations can be easily created and used for educational purposes. The problem currently faced by all teachers in the world is the adjustment of offline learning media implemented by schools in Indonesia after 2 years of implementing online learning. This study aims to find out the differences between online and offline learning media. This research is customized to build a new concept and empirical research model to maximize the use of learning media both online and offline. The total population was 305 students of SMK Negeri 1 Bone, while the sample chosen was 200 respondents. The data collection techniques used are questionnaires and interviews. The data analysis technique used is the t-test. The results showed that there are differences between online learning media and offline learning media. This study is a study that compares learning media, while previous studies have focused on correlational problems, or comparing learning achievement.

Keywords: Media learning, offline, online

1 Introduction

Nowadays, the world of education is developing rapidly and the increasingly complex educational problems faced are not challenges that can be left alone, but require constructive thinking in order to achieve good quality [1], [2]. The problem in question includes the teaching competence of teachers. Teachers are required to have good competence in the process of learning activities because teachers are the educators who have the most contact with students [3]– [5].

In order for teachers to carry out a more optimal learning process, learning innovations are needed in accordance with current demands. Teachers need to understand the problems experienced by students, both problems related to learning as an activity require careful and systematic planning. The planning is made by the teacher before carrying out the learning process, as well as in its implementation, systematic steps are needed so as to achieve optimal learning outcomes. Efforts to develop learning strategies depart from the understanding of teaching as an effort to provide guidance to students to carry out learning activities.

This is that a teacher must design content about what should be conveyed to students in accordance with the learning objectives to be achieved. The content of the lesson is material compiled by lecturers or learning staff, which is taken from the main and supporting sources. The success of learning implementation depends largely on the planned learning strategy.

However, along with the development of technology, learning strategies have also experienced many developments so that lecturers as the frontline of the world of education must be technologically literate, follow the latest developments and adjust and utilize them in learning. This is important considering that learning that is developing today is almost certain to utilize technology in it, so educational institutions are required to continue to innovate in learning.

The existence of learning innovations given to students provides opportunities for students to explore their abilities so that later they can be useful for their future [6]. Currently, teachers have a wide selection of technologies that can be used to improve the learning experience. The use of technology in learning is also called online learning which is expected to provide varied learning so that student soft skills can be directed and student creativity can be improved [7].

Today, in this age of the Internet and electronics, components of a rich multimedia environment such as images, videos, and animated videos can be created and or used to achieve educational goals. People usually believe that this component of multimedia can contribute to the learning process of learners. However, rapidly evolving educational technologies sometimes really confuse today's learners. Nowadays it is necessary to offer a wide variety of learning technologies for students in order to know the media that suits the learning objectives and interests of students.

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When science and technology begin to develop rapidly, students can learn when, where and what is in accordance with the wishes and learning styles of students. In this case, the teacher no longer acts as the only learning resource available, but the teacher begins to act as a designer of learning media by designing various learning by utilizing various media and learning resources available so that a learning process can be carried out effectively and efficiently. Through various advances in the field of science and technology, teachers can use various media that suit their needs and learning objectives to be achieved. Utilizing the available media optimally, it can not only streamline and streamline the learning process but make the learning process more interesting.

Teachers as learning media designers have a role to design the use of learning media so that students are able to gain experience in learning both direct and indirect experiences. Where a direct experience is a form of experience that can be obtained through one's own activities in actual conditions

In the field of teaching and learning, a lot of research has been carried out to examine the effectiveness of learning media. Various learning media such as images, animations, and videos are believed to be able to reduce the visual perception difficulties experienced by students. Media is a container of messages that the source wishes to forward to the target or recipient of the message [8], [9]. The media discussed in this case is the media used in learning. Learning media is a means to provide reinforcement for students so that the learning process occurs [10]

The problem currently faced by all teachers in the world is the adjustment of online learning implemented by schools in Indonesia. This makes it difficult for teachers to adapt to online learning methods. This happened because the COVID-19 outbreak occurred so suddenly [11]– [13]. The government has never prepared the training to anticipate the implementation of online learning. So, what happens is the digitization of traditional learning. So, it's not surprising that many students experience learning stress.

The results of the study by Suprianto, et al. [14] showed that one of the causes of the ineffectiveness of online learning was due to the lack of teacher variation in learning caused by poor learning media. Meanwhile, in offline learning, teachers return to conventional learning, namely only using textbook media.

2 Research Methods

This research is customized to build a new concept and empirical research model to maximize the use of learning media both online and offline. To bridge this, this research builds a new concept, which is based on aspects of increasing interest, learning more and faster, communicating effectively, and recalling previous learning to maximize the use of learning media at SMK Negeri 1 Watampone. The research approach used is a quantitative approach using comparisons.

The total population is 305 students of SMK Negeri 1 Bone. determine the number of samples, an approach from Loehlin & Beaujean [15] minimal sample required to reduce the bias of 200 samples. Meanwhile, the samples in this study used a purposive random sampling approach to the Purposive Sampling Technique.

The reason for selecting samples using purposive random sampling is because not all samples have criteria according to the specified criteria, therefore purposive random sampling is chosen by establishing specific judgment or criteria that must be met by the samples used in this study. The consideration in question is students who have studied offline and online

To obtain the data needed in this study, researchers need several techniques in the data collection process, namely questionnaires, observations, and in-depth interviews. The questionnaire is a data collection technique through a list of questions asked to respondents. The questionnaire provided is related to the use of learning media during online and offline learning. The data analysis method used is by t-test. Data analysis test tool using SPSS 26 software. The data analysis technique uses the Paired Sample t-Test test, where the subjects are students with the same class by being given two different learning treatments, namely online and offline. There is a significant difference with the Paired Sample t-test, test between the use of learning media online and offline learning media if the t-count value is greater than the t-table, and the significance is less than 0.05 or (Sig.) <0.05, and vice versa

3 Result and Discussion

Learning media both online and offline have been widely researched by academics around the world. However, this study specifically examines the comparison of the use of online and offline learning media

3.1 Descriptive Analysis

Descriptive analysis was used to find out the picture of each variable The data of the results of the study are presented in Table 1.

Online learning in terms of interest, motivation, and communication is in the good category, this is in accordance with data analysis. The mean value obtained is 56.13, for more details it is presented in Table 2 :

		Mean	N	Std. Deviation	Std. Error Mean
Pair	Online Learning	56,1350	200	10,28571	,72731
	Offline Learning	56,7200	200	10,79138	,76307

Table 2. Overview of the Use of Learning Media During Offline Learning

Interval	Freq.	Percentage	Category
63-75	64	36.00%	Excellent
51-62	75	33.00%	Good
39-50	56	27.50%	Good Enough
27-38	3	3.00%	Not Good Enough
15-26	2	0.50%	Not Good

Data analysis obtained student responses regarding the use of media in the online learning period in the range of 51-62 with a percentage of 33.00%, which was in the good category. This is seen from the student workers are more focused on following each learning material, teachers, can follow the learning process well, can listen well to what is conveyed by the teacher during the continuous learning process, the use can make it simple for students to know what is conveyed by the teacher, students are happy if the teacher uses learning media in the form of images, audio, video, audio-visual, students are more interested in the material presented by the teacher, students are able to enjoy learning, students prepare time to learn again about the learning material, it is easier to understand the teacher's explanation, with the media making it easier for students to communicate with classmates, while also making it easier to communicate with the teacher, and students are easy to cooperate.

Offline learning in terms of interest, motivation, and communication when viewed in terms of the mean of 56.72 is in the range of 51-62, meaning that it is also in the good category, but the score that chooses is very good is higher than that of online learning, and the average score of using learning media in offline learning is higher than the use of media in online learning.

Table 3. Overview of the Use of Learning Media During Online Learning

Interval	Freq.	Percentage	Category
63-75	72	36.00%	Excellent
51-62	66	33.00%	Good
39-50	55	27.50%	Good Enough
27-38	6	3.00%	Not Good Enough
15-26	1	0.50%	Not Good

3.2 Normality Test

A prerequisite for performing a paired t-test is that the data must be normally distributed since it is part of the parametric analysis. A normality testing is if the value of Asymp. A sig greater than 5 percent then the data is normally distributed. The results of the data analysis are addressed in Table 4:

Table 4. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		200
Normal Parameters a, b	Mean	,0000000
	Std. Deviation	7,88812156
Most Extreme Differences	Absolute	,093
	Positive	,055
	Negative	-,093
Kolmogorov-Smirnov Z		1,309
Asymp. Sig. (2-tailed)		,065
a. Test distribution is Normal.		
b. Calculated from data.		

The test results show the value of Asymp. The sig is greater than 5 percent, which is 6.5 percent, so it can be concluded that the data has been distributed normally. Therefore, it can be continued for the paired t-test

3.3 Test Paired t-test

Testing for paired sample t-test is used to determine the difference in the average of two paired samples. Paired samples are groups of samples that have the same subject but undergo different measurements. After data analysis, the relationship between the variables is strong with a value of 0.642 with a significance of 0.000, for more details it is presented in Table 5:

Table 5. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Online Learning & Offline Learning	200	,642	,000

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Table 5. Paired Samples Correlations

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Pair 1	Online Learning & Offline Learning	200	,642	,000

This shows that there is a strong relationship between online learning and offline learning. Next for the hypothesis test, judging from the value of t, which is presented in Table 6:

The calculated t value is -0.926, while the table t value (df=199) is 1.972. The calculated t value is smaller than the t table so there is no difference with the Paired Sample t-t test between the use of learning media online and learning media when offline. Furthermore, the significance value emphasizes that there is no significant difference between the use of online learning media and online learning media. (See : sig > 5 percent).

The existence of the Covid-19 pandemic has transformed all aspects of people's lives, and covers in the learning process, the pandemic requires teachers to be able to use technology as usefully as possible. When science and technology begin to develop rapidly, students can learn when, where and what is in accordance with the wishes and learning styles of students. In this case, the teacher no longer acts as the only learning resource available, but the teacher begins to act as a designer of learning media by designing various learning by utilizing various media and learning resources available so that a learning process can be carried out effectively and efficiently.

Through various advances in the field of science and technology, teachers can use various media that suit their needs and learning objectives to be achieved. According to Jamaluddin et al. [10] By utilizing the available media optimally, it can not only streamline and streamline the learning process but make the learning process more interesting.

Teachers as learning media designers have a role to design the use of learning media so that students are able to gain experience in learning both direct and indirect experiences. Where a direct experience is a form of experience that can be obtained through one's own activities under real conditions. For example, in order for students to learn to express their ideas in computer digital media, the teacher must provide a computer for students to use.

The absence of a difference between the use of media during loud learning and offline learning shows that both teachers and students have become accustomed to using learning media that varies since the Covid-19 pandemic and this continues during face-to-face learning.

4 Conclusions

The use of learning media both online and offline is in a good category. The results of the paired t-test showed that there was no difference in the use of learning media online or offline. From this research, it is hoped that teachers continue to increase their potential to continue to provide the best in learning, including the use of learning media. The existence of Covid-19 has forced teachers to learn a lot about technology, but this actually makes teachers more creative in making/using learning media.

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