Analysis of Online Learning Media on Learning Motivation in Physics Concepts

Paulus G.D. Lasmono S.[1], Florentina Maria Panda [2]
Physics Education Study Program, Cenderawasih University
e-mail: florentinapandaasesor3@gmail.com

Abstrak

Tujuan penelitian ini, untuk mengetahui efektivitas dan mendeskripsikan penggunaan media pembelajaran online terhadap motivasi belajar. Metode penelitian yang digunakan deskriptif kualitatif tentang media pembelajaran online terhadap motivasi belajar peserta didik. Data analisis mengenai media pembelajaran daring yang digunakan di SMA Negeri 1 Sentani yaitu 6 orang menggunakan aplikasi google classroom (50%), 4 orang menggunakan grup WA dan google classroom (33,3%), dan 2 orang menggunakan grup WA (16,7%), sehingga disimpulkan penggunaan media pembelajaran daring yang digunakan lebih dominan menggunakan google classroom. Hasil analisis data mengenai keefektifan penggunaan media pembelajaran online yang digunakan yaitu 10 orang menjawab efektif dengan persentase 83,3% dan 2 orang menjawab sangat efektif dengan persentase 16,7%, disimpulkan bahwa penggunaan media pembelajaran online yang digunakan sudah efektif. Data hasil analisis motivasi belajar online pada mata pelajaran adalah 9 orang sangat termotivasi (75%) dan 3 orang menjawab termotivasi (25%), disimpulkanpeserta didik sangat termotivasi dalam belajar online.

Kata Kunci: *Media Pembelajaran, Motivasi Belajar, Konsep Fisika*

Abstract

The purpose of this study, to determine the effectiveness and describe the use of online learning media on learning motivation. The research method used is descriptive qualitative about online learning media on students' learning motivation. Data analysis regarding online learning media used at SMA Negeri 1 Sentani, namely 6 people using the google classroom application (50%), 4 people using WA groups and google classroom (33.3%), and 2 people using WA groups (16.7%), so it is concluded that the use of online learning media used is more dominant using google classroom. The results of data analysis regarding the effectiveness of the use of online learning media used, namely 10 people answered effectively with a percentage of 83.3% and 2 people answered very effectively with a percentage of 16.7%, concluded that the use of online learning media used was effective. The data from the analysis of online learning motivation in the subject is 9 people are very motivated (75%) and 3 people answer motivated (25%), it is concluded that students are very motivated in learning online.

Keywords: *Learning Media, Learning Motivation, Physics Concepts*

INTRODUCTION

The 21st century period experienced many advances in the field of technology and information, this has an impact on human civilization in the use of technology and information, especially in the field of education. During the

lockdown period in various countries carry out activities at home and predominantly use the internet to carry on most of the daily work (Thelwall & Thelwall, 2020). Increasing technological developments make the need for technology-based learning mechanisms to be improved. E-learning is widely used by the public at large, as evidenced by its implementation in various educational institutions (Safarati & Rahma, 2020). Currently the whole world is being hit by the Covid-19 pandemic which is causing changes in all areas of life including in the education sector, where learning activities cannot be carried out face-to-face or are referred to as online learning. One of the countries exposed to the Covid-19 virus is Indonesia and it has an impact on all fields, one of which is education (Alea et al., 2020, Adanikin et al., 2020). An emergency solution to the Covid-19 pandemic requires lecturers and students to study and carry out online learning (Arota et al., 2020).

Online learning (e-learning) is included in the learning model by the use of internet networks and technology. Utilization of learning media technology that is generally used in online learning includes Google Classroom, Google Meet, Zoom Meeting, and WhatsApp Group. The emergence of e-learning shows the various kinds of online learning media used by teachers such as google classroom, schoology, edmodo and others (Mamonto et al., 2021). Edmodo can be used as a learning communication platform to support learning at individual, group, and whole-class levels, both inside and outside the classroom, which can be used across formal and informal learning environments. Edmodo can be used as a learning communication platform to support learning at individual, group, and whole-class levels, both inside and outside the classroom, which can be used across formal and informal learning environments (Kong & Song, 2014).

Learning relates to the totality of the modern telecommunications equipment and ICT resources embedded in the education system (Adanikin et al., 2020). Learning using Zoom Cloud video conferencing can support distance learning and makes it easier for students to receive learning material delivered by the teacher because it is more realtime and interactive as a learning medium (Ismawati & Prasetyo, 2021). Meeting is an application that is used as a medium of remote communication by combining video, chat, online meetings, and mobile collaboration in one virtual meeting (Monica & Fitriawati, 2020).

Learning media as a means of assisting in improving the teaching and learning process has a function to clarify the meaning of the message conveyed so that it can achieve the desired learning objective (Alifteria et al., 2023). Based on the results of interviews and direct observations of researchers, the use of this technology is still not effective in increasing student motivation. This is due to the use of learning media that is less attractive and minimal student involvement in the learning process, due to a lack of educator knowledge and student understanding in utilizing other online learning media (e learning). Physics is one of the subjects in schools, both at the middle and upper secondary levels to tertiary institutions. This subject requires conceptual understanding, mathematical understanding and requires experiments to strengthen conceptual understanding and involve student activity. Then we need other online learning media that can support this.

The selection of internet-based technology learning media must really be considered because if it is not effective it can have an adverse impact on the benefits of learning. Where an educator must be able to understand the principles and factors that can influence the effectiveness of digital technology in the learning process (Putrawangsa & Hasanah, 2018). Learning that ideally has interactivity between educators and students even though not in the same place, with video conferencing will help the learning process carried out, because educators will be directly involved with students (Sandiwarno, 2016).

Based on the problems that have been described, researchers are trying to conduct research that aims to describe online learning media on student learning motivation during a pandemic by analyzing related sources through primary and secondary sources. Primary sources are obtained from interviews and direct observation of researchers, while secondary sources are obtained from library studies in the form of related journals and books. Based on the existing problems, the aim is to determine the effectiveness of learning using online learning media on learning motivation in physics concepts. during a pandemic, and describes online learning media on motivation to study the concept of Physics during a pandemic.

METHOD

This research is included in the descriptive research that examines an event that occurred (Sugiyono, 2018). In this study, it examines online learning media on student learning motivation during a pandemic. The data collection technique uses a literature study with a qualitative approach, in which the researcher collects data objectively, thoroughly, and as is in accordance with the observations examined in the literature study. Data obtained from primary sources and secondary sources. Primary sources are collected directly by researchers using interview and observation techniques, while secondary sources are obtained from reliable, relevant articles and textbooks related to the issues studied. Data obtained from research results in the form of detailed descriptions that will continue to increase over time. The data were obtained from research results which were readjusted based on the research problems. The data is presented in the form of diagrams, tables and so on.

Determination of the sample is done by using the technique sampling *purposive*, means a deliberate sampling technique. Researchers determine their own samples taken because of certain considerations that are assessed according to the objectives or research problems to be studied. So, the sample is not taken randomly, but determined by the researcher himself. Sampling is based on the researcher's "assessment" of anyone who meets the requirements to be sampled.

Interview is a method of collecting data directly to data sources through oral information without writing answers. Interviewing can be an excellent technique, because people prefer to speak rather than write. The information obtained is more accurate if the interviewer can maintain good relations and cooperation. In this study, the researchers conducted interviews with physics education students class of 2019 at the Cenderawasih University physics education study program. Interviews with students were conducted to find out students' understanding and

responses regarding the effectiveness of online learning felt by these students from the perspective of the students themselves and their suggestions on how to increase the effectiveness of learning online. In this study the interview method was used to check the validity of the data obtained from the results of the questionnaire.

Questionnaires or questionnaires are a number of written questions used to obtain information from respondents. In this study, researchers used a questionnaire as supporting data to obtain data about students' perceptions of learning motivation during the pandemic. In this study the researcher used a closed questionnaire which was presented in such a way with the answers, so that the respondents only had to choose. The questionnaire given was a direct questionnaire, namely the respondent answered about himself.

RESULT AND DISCUSSION

Based on the data obtained from the questionnaire the effectiveness of using online learning media and online learning motivation in physics subjects can be seen in table 1 below:

Table 1. Results of Data Analysis of Online Learning Media

Online Learning Apps	Learners	
	Amount	Percentage (%)
WhatsApp groups	2	**16,7**
Google Classroom	6	**50**
WhatsApp groups and Google Classroom	4	**33,3**
Amount	**12**	**100%**

The results of data analysis regarding online learning media used at SMA Negeri 1 Sentani, namely 6 people with a total percentage of 50% use the google classroom application, 4 people use the WA group and google classroom by 33.3%, and 2 people use the WA group of 16.7%, so it can be concluded that the use of online learning media that is used is more dominant using Google Classroom. Where an educator must be able to understand the principles and factors that can affect the effectiveness of digital technology in the learning process (Putrawangsa & Hasanah, 2018). In line with previous research, it was found that by using the Google Classroom application, the average learning result was 79%, where the score was included in the high category (Tito, 2021).

The data obtained from the questionnaire on the effectiveness of using online learning media is shown in table 2 below:

Table 2. Results of Questionnaire Data Analysis on the Effectiveness of Using Learning Media

Serial Number of Learners	Questionnaire Scores and Percentages		Effectiveness Category
	Score	Percentage (%)	
1	54	68	**Effective**
2	59	74	**Effective**
3	60	75	**Effective**
4	62	78	**Very effective**

5	56	70	**Effective**
6	54	68	**Effective**
7	57	71	**Effective**
8	62	78	**Very effective**
9	53	66	**Effective**
10	53	66	**Effective**
11	51	64	**Effective**
12	61	76	**Effective**
Average	**682**	**71**	**Effective**

Data analysis results regarding effectiveness use of online learning media used in SMA Negeri 1 Sentani is a number of 10 people answered effectively with a percentage of 83.3% and a number of 2 people answered very effectively with a percentage of 16.7%, and the average result effectiveness use of online learning media is effective, it can be concluded use of online learning media which is used effectively in the process of learning physics. Learning media are all forms of communication tools that are channeling messages from message sources to students so that they can stimulate students' thoughts, interests, feelings and willingness in carrying out the learning process (Asmariani, 2016).

The data obtained from the online learning motivation questionnaire in physics subjects can be seen in table 3 below:

Table 3. Results of Analysis of Learning Motivation Questionnaire Data

Serial Number of Learners	Questionnaire Scores and Percentages		Motivation Category
	Score	Percentage (%)	
1	59	74	**Motivated**
2	52	65	**Motivated**
3	64	80	**Very Motivated**
4	65	81	**Very Motivated**
5	69	86	**Very Motivated**
6	65	81	**Very Motivated**
7	64	80	**Very Motivated**
8	64	80	**Very Motivated**
9	66	83	**Very Motivated**
10	61	76	**Very Motivated**
11	59	74	**Motivated**
12	66	83	**Very Motivated**
Average	**754**	**79**	**Very Motivated**

Data analysis results about motivation online study on physics subjects in Sentani 1 Public High School, there were 9 people who answered very motivated with a percentage of 75% and a number of 3 people answered motivated with a percentage of 25%, and the average result motivation to learn online on physics subjects is highly motivated, it can be concluded that students are highly motivated in online study on physics subjects. In line with the results of the study stated that of some indicators of learning motivation assessment, only indicators of pleasure in finding and solving problems are in the category of high motivation (Nasrah & Muafiah, 2020). The results of Khotimah and friends' research stated that e-learning can be a good medium for distance learning during the covid-19 pandemic (Khotimah et al., 2020). Physics learning practices can be carried out using a virtual laboratory, in accordance with the opinion of Gunawan and friends that virtual

laboratories have a positive effect on students' understanding of concepts (Gunawan et al., 2018).

CONCLUSION

Based on the results of the research achievements, the following conclusions can be drawn Effective use of media online learning used in SMA Negeri 1 Sentani is a number of 10 people answered effectively with a percentage of 83.3% and a number of 2 people answered very effectively with a percentage of 16.7%, and the average result effectiveness of media use online learning is effective.

The use of online learning media that is used is more dominant using Google Classroom. Motivasi belajar online pada mata physics SMA Negeri 1 Sentani, there were 9 people who answered very motivated with a percentage of 75% and a number of 3 people answered motivated with a percentage of 25%, and the average resultonline learning motivation in physics subjects is very motivated.

Based on the conclusions obtained, the research team provides the following suggestions In an effort to increase learning motivation and student achievement in economic subjects, it is better to use a variety of media. Teachers are expected to try to pay more attention to the use of appropriate learning media in learning physics which can generate motivation to learn to improve student achievement. For schools, it is better to apply internet media to other subjects that require high understanding to make it easier for students to understand the lesson.

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