

## **APPLICATION OF E-LEARNING FOR ONLINE LEARNING DURING THE COVID-19 PANDEMIC AT UNIVERSITY OF PEMBANGUNAN PANCA BUDI**

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Received : 20 July 2022, Revised: 01 September 2022, Accepted : 01 September 2022

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### **ABSTRACT**

*During the COVID-19 pandemic, all activities must be carried out at home as a result of the policy of restricting people's movement. As a result of this policy, all learning at the school and university levels must be carried out remotely or online. In particular, universities have not been able to carry out distance or online learning for all courses and all meetings. Of course, during the pandemic, it is a challenge for all universities to be able to carry out distance learning or online learning. So far, all universities in Indonesia are still implementing a blended learning system, or mixed learning between face-to-face meetings and online meetings. Usually 30% of face-to-face meetings and 70% online use e-learning. At University of Pembangunan Panca Budi, e-learning-based blended learning has been implemented and developed since 2012. Even though UNPAB's infrastructure and human resources are quite ready to carry out fully online learning during a pandemic, there are challenges that must be anticipated, namely student readiness, because most of the students are in the area.*

**Keywords :** *E-Learning, Distance Learning, Covid-19*

### **1. Introduction**

The COVID-19 pandemic has brought about changes in various aspects of life in this world. Not only in Indonesia, almost all countries in the world have also felt the same impact as a result of the COVID-19 pandemic. Because of its very fast spread, the best way to reduce and stop the spread of the COVID-19 virus is to maintain distance and limit various activities of people. In Indonesia, the handling of the Covid-19 virus is carried out by implementing a policy of limiting people's activities or locking on a micro or regional scale depending on the level of spread and positive cases of each region (Hamzah, et al., 2022; Anthony Jnr, 2022; Setiawan, et al., 2022; Sabat, 2022).

Education in Indonesia, the implementation of online learning is still a sensitive matter to discuss. In the circular letter of the Ministry of Education, Culture, Research and Technology no. 2 of 2022 concerning the Implementation of Education in Higher Education, it is written that the implementation of fully online learning still has to apply for special permission from the Ministry. So maybe what we know that can hold online learning in Indonesia today is an open university.

What can be applied in universities in Indonesia is the blended learning model. Blended learning is a combination of face-to-face learning systems with online learning systems, with presentations between 30% face-to-face meetings and 70% online. In the implementation of blended learning systems can take advantage of learning management systems such as Moodle (Anderjovi, et al., 2022).

University of Pembangunan Panca Budi, which is one of the oldest universities in North Sumatra, has begun to develop and implement a blended learning system based on e-Learning since 2012. The LMS used at UNPAB is moodle with the address [elearning.pancabudi.ac.id](http://elearning.pancabudi.ac.id). This LMS is to accommodate online learning for all study programs at UNPAB. The online learning system applied at UNPAB is blended learning (Bizami, et al., 2022).

However, due to the COVID-19 pandemic, which has resulted in restrictions on community activities, including face-to-face lectures, all universities in Indonesia must respond quickly and provide real solutions in order to fully carry out online lectures. This is a challenge for all universities, because fully online learning must be supported by qualified facilities and also lecturers who must be familiar with the use of technology (Li & Wang, 2022).

E-Learning is a type of learning system that allows the achievement of teaching materials to students by using internet media. E-Learning has the following characteristics; (1) having content that is relevant to the learning objectives, (2) using instructional methods, such as presenting examples and exercises, (3) using elements such as words and pictures to convey learning, and (4) building understanding and abilities related to learning objectives either individually or in groups (Hamzah, et al., 2019; Ambiyar, et al., 2019; Prifti, 2022; Dubois, et al., 2022).

Implementation of E-Learning-Based Learning during the Covid-19 Period for Students of the 2020 PPKn UNP Entry Year. The issue of the Journal of Civic Education researched by Akmal, Gusti Selfi in 2020, used a descriptive qualitative method. Based on this research, the results of the implementation of E-Learning-based learning during the Covid-19 period went quite well with the entire learning process carried out in accordance with existing regulations (Selfi & Akmal, 2021).

Utilization of E-Learning in Distance Learning during the Covid-19 Pandemic. The BIBLIO COUNS issue researched by Pipit Putri Hariani, Sri Ngayomi Yudha Wastuti, Liza Mahdalena, Wahid Iskandar Barus, uses descriptive qualitative methods. Based on this research, the results of the implementation of E-Learning for distance learning during the covid-19 period did not go well, because most respondents did not agree with the E-Learning-based online learning system (Hariani, et al., 2020).

In the two studies above, different results were obtained, namely in the first study the results of the implementation of online learning during the pandemic were good because it had been running in accordance with existing regulations. While the second research results are e-learning-based online learning does not work well, because most students do not agree with the implementation of e-learning-based learning (Alyahya, et al., 2022).

### **3. Research Methods**

#### **Research design**

The approach used in this study is in the form of a descriptive explanation of the responses and experiences of respondents in participating in online learning based on E-Learning during the covid-19 pandemic.

#### **Research Subject**

The subjects in this study were students of the University of Pembangunan Panca Budi, Computer System Study Program, the subject of Cloud Technology and the lecturer Heri Kurniawan, S.Kom., M.Kom with a total of 30 respondents.

#### **Data Collection Technique**

The procedure for collecting data in this study is to provide online questionnaires to respondents, observation and study documentation. And for data analysis through three stages, namely data reduction, data presentation and conclusions or data verification.

### **4. Results and Discussions**

In conventional synchronous learning, lecturers and students can interact directly in the classroom. However, due to the COVID-19 pandemic, which requires online learning or distance learning, of course, lecturers and students must adapt to this new learning process. Although it is possible that the synchronous learning system or virtual face-to-face in real time using media such as zoom is quite effective for interaction between lecturers and students, this synchronous learning system requires a qualified network connection. The problem is that in Indonesia internet network access has not been evenly distributed, especially for those in the regions. So asynchronous learning using E-Learning is a good enough choice to be used as a media to support the implementation of online learning during the COVID-19 pandemic (Hamzah, et al., 2021).

#### **Understanding of Materials Delivered Through E-Learning**

There are considerable challenges for lecturers in implementing this E-Learning-based learning. And the key in facing these challenges is that lecturers must be good at creating

interesting learning content. Interesting and interactive teaching materials will make students more interested and easy to learn (Moustakas & Robrade, 2022).

Based on the results of a questionnaire with 30 respondents related to understanding the material conveyed through e-learning, the following results were obtained :



Fig 1. Graph of Material Understanding Delivered through E-Learning

Based on the graph above, the results obtained are 90% or 27 UNPAB students who take the Cloud Technology course with lecturer Heri Kurniawan, S.Kom., M.Kom understand the material delivered through e-learning. Meanwhile, 10% or 3 other students admitted to having difficulties with delivering material through e-learning.

#### Types of Materials that are Easy to Understand

As mentioned above, the key to the success of e-learning-based online learning is the learning content or the type of material that is not monotonous like conventional learning. Therefore, lecturers are required to continuously improve their knowledge and skills in the field of information and communication technology (Perera & Abeysekera, 2022).

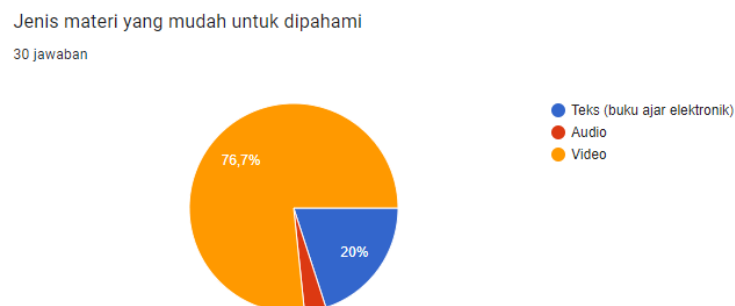


Fig 2. Easy-to-Understand Material Type Chart

Based on the graph above, the results obtained about 77% or 23 students stated that the easiest e-learning-based online learning material to understand was in the form of learning videos. And then, there are 20% or 6 students whose material is easy to understand in the form of electronic text. While 3% or 1 student stated in audio form.

#### E-Learning Can Be a Replacement Technology for Face-to-Face Meetings

In the pre-pandemic period, the world of education in Indonesia was still very dependent on conventional learning in the classroom. The online learning at that time was carried out using a blended learning model or mixed learning between face to face and online. However, because of the pandemic that forced the world of education to carry out online learning completely. This condition is certainly a challenge for all universities in Indonesia, including the Panca Budi Development University. And the following is an assessment from students regarding the online learning experience during the pandemic.

Apakah e-Learning mampu menjadi teknologi yang dapat mengganti pertemuan tatap muka?  
30 jawaban

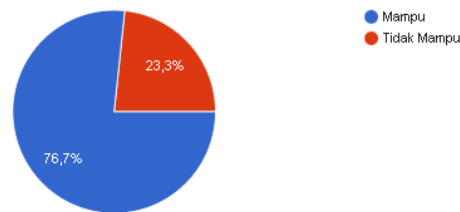


Fig 3. E-Learning Graphics as a Technology to Replace Face-to-face Meetings

Based on the graph above, the results obtained ranged from 77% or 23 students stated that online learning based on e-learning can replace face-to-face meetings in class. Meanwhile, 23% or 6 students stated that e-learning was not able to replace face-to-face meetings in class.

#### Agree to E-Learning for Online Learning.

During the pandemic, there may be an element of compulsion for all universities to fully implement online learning. But I think this can be a baseline for the learning system in Indonesia in the future. In the future, the learning system will no longer be limited to classrooms, but will prioritize the use of technology, especially now that virtualization such as metaverse has begun. And do students agree with online learning based on e-learning as it is today? The following are the results of student assessments (Satyawan, et al., 2021; Qiao, et al., 2021; Fuady, et al., 2021).

Apakah anda setuju tentang penggunaan e-Learning untuk pembelajaran daring  
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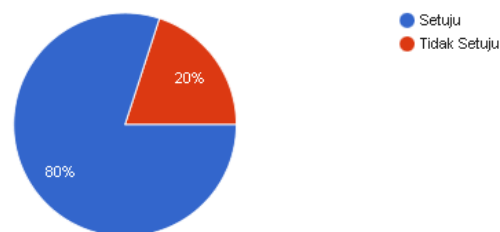


Fig 4. Graph of Using E-Learning for Online Learning

With a fairly large presentation, 80% or 24 students agree with e-learning as an online learning medium. While there are 20% or 6 students who do not agree. Perhaps it is understandable that 20% of the students chose not to agree, because e-learning-based asynchronous learning has quite a big challenge.

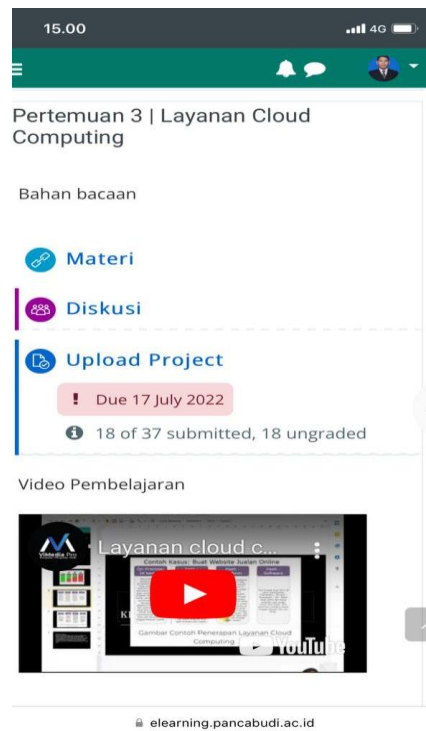


Fig 5. Learning Content in E-Learning

## 5. Conclusion

Based on the presentation of the results of the assessment and student experiences above, it can be concluded that e-learning-based online learning is very helpful in carrying out lectures during a pandemic that cannot meet face-to-face in class. And even 80% of students agree with the use of e-learning in online learning. However, what must be underlined is that e-learning-based online learning must be accompanied by interactive and interesting learning content. In accordance with the student's choice, the material that is easy to understand is in the form of learning videos. Of course it is a challenge for lecturers to continue to improve their abilities in the field of information and communication technology.

The next challenge is that lecturers must be able to manage online meetings in e-learning in accordance with the learning outcomes of the courses. So it is important for lecturers to make lesson plans. Lecturers must prepare lesson plans and design course learning so that it is easy to create and manage learning content in e-learning. The best choice for implementing online learning is actually a combination of synchronous and asynchronous learning. In synchronous learning, lecturers can meet virtual directly with students using teleconference media such as zoom, google meet, etc. Indeed, the implementation of synchronous online learning like this requires an adequate network connection and this is also an obstacle where network connections in Indonesia are not evenly distributed. Furthermore, asynchronous learning is that lecturers can use e-learning media. In this e-learning-based asynchronous learning system, the role of the lecturer is needed, starting from planning, implementing learning and evaluating learning.

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