

The Effectiveness of Online Learning Amid the COVID-19 Pandemic

Suprianto¹, Sitti Hardiyanti Arhas², Mahmudin³, Ade Onny Siagian⁴
^{1,3} Universitas Borneo Tarakan, ²Universitas Negeri Makassar, ⁴Universitas Nasional
E-mail: supriantoubt@gmail.com

ABSTRACT

Online learning has become the prima donna in the world of education amid the COVID-19 pandemic. With this increasing popularity, students' perceptions of the application of online learning have become a top priority for education. Conventional learning methods are no longer sufficient to meet the needs of the learning process. During the COVID-19 pandemic, popular applications used by lecturers were applications provided by the campus as well as third-party applications such as Whatsapp, Google Classroom, or Webex. The purpose of this study was to determine the effectiveness of online learning amid the COVID-19 pandemic in terms of reactions, learning, behavior, and results. This type of research is combination research (mixed methods), which combines quantitative and qualitative research types. To obtain quantitative results, a sample was drawn, the total sample was 39 students, while to obtain qualitative results, 3 students were selected as the informants. Data collection techniques used were questionnaires, observation, and in-depth interviews. The mixed methods research design used was a triangulation design. Based on the research results, online learning during the COVID-19 pandemic was implemented quite effectively. This is evident from the reaction is in the satisfactory category, learning is in the fixed category, the behavior is in the fixed category, and learning outcomes are in the increased category.

Keywords: effectiveness, online learning, COVID-19

INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared the coronavirus or COVID -19 (Corona Virus Disease 2019) a pandemic after the number of positive cases of more than 121,000 patients worldwide. The status of a pandemic is determined because the transmission of the disease is easily spread from human to human around the world. The existence of a pandemic status indicates that the government must take urgent and aggressive action in preventing its spread.

In China, the case of the spread of the coronavirus began in November 2019, this of course shocked the whole world, including in Indonesia. People initially underestimated this disease because Indonesia is a tropical area so that people have a strong immunity to fight viruses, including corona, but increasingly fear of the coronavirus begins to increase. This was proven when President Joko Widodo announced the first positive case of corona in Indonesia on March 2, 2019, and the number of positive cases continues to increase by 117 patients. This prompted President Joko Widodo to adopt a policy of "Work, study and worship from home".

About the government policy of learning from home, all learning activities are carried out online or commonly referred to as online learning. Online learning has become mainstream in the education sector and has been massively adopted in higher education. Online learning has developed rapidly with various technologies and devices to access learning resources, such as

laptops, computers, smartphones, and tablets. Technology has profoundly influenced education, learning, and teaching methods. Traditionally, accessibility to learning material has been limited to a few individuals. Collaboration and communication have been limited to students in the same class. Today, a large number of learning resources encourage self-learning and transcend geographical boundaries (Al-Fraihat et al., 2020).

Online learning is like being the prima donna in the world of education amid the COVID-19 pandemic. With this increasing popularity, students' perceptions of implementing online learning have become a top priority for their education. Online learning development is linked to development, technical improvements, and also better computer affordability. In the late 80s and 90s, for the first time, online education and training was carried out Computer-Based Training (CBT) (Eger in (Hubackova, 2015))

Conventional learning methods are no longer sufficient to meet the needs of an enhanced learning process, especially in higher (Arhas, 2018; Suprianto et al., 2018; Wang et al., 2019). During the COVID-19 pandemic, popular applications used by FKIP UBT lecturers were applications provided by the campus and third-party applications such as Whatsapp, Google Classroom, or Webex. However, in the implementation of online learning, there were several problems such as some students were new to using the application existing learning, frequent use of excessive quotas, complaints about too many assignments, and the instability of the available internet network

METHOD

This type of research is a mixture, namely the method used as a guide in collecting and analyzing data by combining qualitative and quantitative approaches in each phase of the research process (Aramo-Immonen, 2013; Mulyadi, 2013; Sugiyono, 2017). Data collection techniques, namely questionnaires and in-depth interviews conducted online (google form) (Creswell, 2013).

The total population in this study was 258 students, because of the large population, the estimate that was taken was 15%, so the sample size was 39 students, (Riduwan & Sunarto, 2017). Meanwhile, to obtain qualitative results, 3 students were selected as informants. The mixed methods research design used was triangulation design so that the data analysis used was quantitative and qualitative. Qualitative analysis is a descriptive statistical analysis using the SPSS 23 application. While qualitative data analysis consists of data reduction, data presentation, and verification.

RESULT AND DISCUSSION

Provision and use of e-learning applications is a major challenge for many universities during the COVID-19 pandemic. In general, on a regular campus, online learning itself is the first experience for lecturers and students so that the difficulty of adapting to the application is quite felt by lecturers and students. Based on the indicators selected in the study, namely reactions, learning, behavior, and learning outcomes, they are described as follows:

Reaction

The reaction is student satisfaction in the online learning process. To determine the level of student satisfaction at the University of Borneo Tarakan in implementing online learning, it is presented in Table 1.1 below:

Table 1.
An overview of student reactions during online learning

Interval	Frequency	Percentage	Category
17-20	2	5,13%	Very satisfy
13-16	20	51,28%	Satisfactory
10-12	13	33,33%	Enough
7-9	3	7,69%	Less satisfactory
4-6	1	2,56%	Not satisfactory
Amount	39	100,00%	

Source: Results of data processing, 2020

Based on the results of data processing, the average value is 12.615 which is in the 13-16 range. This means that the description of student reactions to online learning during the COVID-19 pandemic tends to be satisfactory based on the responses of 20 respondents or 51.28 percent. There is 5.13 percent of respondents think that they are very satisfied with online learning, 33.33 percent of respondents think that they are quite satisfied with online learning, 7.69 percent of respondents are not satisfied with online learning, and 2.56 percent of respondents are not satisfied with learning online.

This was supported by the results of interviews with several resource persons, as expressed by Hendy Wirandi, a student majoring in Guidance and Counseling, who revealed that online learning during the COVID-19 pandemic was ineffective due to unstable networks especially for students in border areas so that often do not understand the learning material delivered by the lecturer. However, by implementing online learning, students are aware of various new learning applications such as zoom, google meet, and google classroom ”.

A different opinion was conveyed by a student named Alet that online learning during the COVID-19 Pandemic was sometimes fun and sometimes troublesome. However, online learning is much more fun than offline learning due to increased learning in various subjects.

Learning

Learning is an increase in knowledge during online learning. To find out the increase in knowledge of University of Borneo Tarakan students in the implementation of online learning, it is presented in Table 2 below:

Table 2.
Overview of student learning during online learning

Interval	Frequency	Percentage	Category
21-25	2	5,13%	Greatly Improved
17-20	15	38,46%	To increase
13-16	17	43,59%	Permanent
9-12	5	12,82%	Decreased
5-8	0	0,00%	Very Decreased
amount	39	100,00%	

Source: Results of data processing, 2020

Based on the results of data processing, the average value is 15,897, which is in the 13-16 range. This means that the picture of student learning in online learning during the COVID -19 pandemic tends to remain or not change based on the responses of 17 respondents or 43.59 percent. There was 5.13 percent of respondents whose knowledge increased greatly, 38.46 percent experienced an increase in knowledge, 12.82 percent of respondents had decreased knowledge, and 0 percent of respondents whose knowledge had greatly decreased in the online learning process during the COVID-19 pandemic.

Based on the results of interviews conducted with Abhita Nabil Arrhofiq's brother, it was found that during online learning, lecturers made many innovations related to learning, so that the material obtained was more than offline learning. The same thing was expressed by Miss Friska, that online learning has positive and negative sides, but has more positive sides such as being able to manage time to study online and work to help parents, can save monthly costs because while studying online is in the village so it is a burden. fewer parents need to send money every month, and another benefit is more time with their family while studying.

Behavior

Behavior, namely a change in practice or skills. To find out the increase in the behavior of University of Borneo Tarakan students in implementing online learning, it is presented in Table 1.3 below:

Table 3.
Description of student behavior during online learning

Interval	Frequency	Percentage	Category
10	3	7,69%	Greatly Improved
8-9	14	35,90%	To increase
6-7	16	41,03%	Permanent
4-5	5	12,82%	Decreased
2-3	1	2,56%	Very Decreased
amount	39	100,00%	

Source: Results of data processing, 2020

Based on the results of data processing, the average value is 7,102 which is in the range 6-7. This means that the description of student behavior in online learning during the COVID - 19 pandemic tends to remain or not change based on responses from 16 respondents or 41.03 percent. There was 7.69 percent of respondents whose behavior increased greatly, 35.90 percent experienced an increase in behavior, 12.82 percent of respondents had decreased behavior, and 2.56 percent of respondents whose behavior decreased greatly in the online learning process during the COVID-19 pandemic. This means that online learning has different impacts on students.

Based on the results of interviews conducted with Miss Andina Cantika Ansar Abdjan, it was found that offline learning is easier to understand compared to online learning, there are many tasks given by lecturers during online learning, and it does not provide material understanding to students. A different thing was expressed by Miss Fahimah Norita, that the toughest obstacle in online learning was network constraints, so that often if the network was not good when the lecturer was explaining the teaching material, what the lecturer said was not well understood. With the COVID-19 pandemic, we know better about the efforts of lecturers in preparing various learning media and looking for ways so that the learning process can.

Learning Outcomes

Learning outcomes, namely the values obtained after the online learning process is complete. To find out the learning outcomes of students at the University of Borneo Tarakan, it is presented in Table 4 below:

Table 4.
An overview of student learning outcomes during online learning

Interval	Frequency	Percentage	Category
17-20	7	17,95%	Greatly Improved
14-16	20	51,28%	To increase
11-13	10	25,64%	Permanent
8-10	2	5,13%	Decreased
5-7	0	0,00%	Very Decreased
amount	39	100,00%	

Source: Results of data processing, 2020

Based on the results of data processing, the average value is 14,538 which is in the range 14-16. This means that the description of student learning outcomes in online learning during the COVID -19 pandemic tends to increase based on responses from 20 respondents or 51.28 percent. There were 17.95 percent of respondents whose learning outcomes increased greatly, 25.64 percent experienced an increase in learning outcomes, 5.13 percent of respondents had decreased learning outcomes and 0 percent of respondents whose behavior decreased greatly in the online learning process during the COVID-19 pandemic.

Based on the results of interviews conducted with Ardan Alfianur, it was found that with the implementation of online learning, students could be more independent, better aware of their abilities because, during online learning, students could not cheat. Lectures can be more flexible because they are not conducted on campus. A slightly different view is expressed by Miss Ruran Veronika, that online learning makes students more independent than offline learning. However, when learning is done online, many students ignore lectures for many reasons, and lectures are sometimes interrupted by very bad network connections, so some students don't understand the material presented by the lecturer.

The Effectiveness of Online Learning

Online learning is the delivery of learning material via electronic media or the internet so that students can access it at any time from all over the world. To find out the effectiveness of online learning, students of the University of Borneo Tarakan, are presented in Table 1.5 below:

Table 5.
An overview of the effectiveness of online learning

Interval	Frequency	Percentage	Category
63-75	1	2,56%	Very effective
51-62	17	43,59%	Effective
39-50	20	51,28%	Effective enough
27-38	1	2,56%	Less effective
15-26	0	0,00%	Ineffective
amount	39	100,00%	

Source: Results of data processing, 2020

Based on the results of data processing, the average value is 50.153 which is in the range 39-50. This means that the description of student learning outcomes in online learning during the COVID-19 pandemic tends to be quite effective based on responses from 20 respondents or 51.28 percent. There are 2.56 percent of respondents who feel that online learning is very effective in the learning process, 43.59 who feel that online learning is effective in the learning process, 2.56 percent who feel that online learning is less effective in the learning process, and 0 percent of respondents who feel that online learning is not effective in the learning process during the COVID-19 pandemic.

Based on the results of interviews conducted with Sarlina Sari Lisnawati, it was found that with offline learning students could focus more on learning, if done online, at home they were less focused because there was homework to be done so sometimes they had to go to college while doing other household chores. The same thing was expressed by Miss. Ruran Veronika, that online learning must be supported by a stable internet network so that the learning process is more effective. With online learning, students can study anywhere and can

also be closer to their families. Effective online learning is also supported by the teaching style practiced by the lecturers.

DISCUSSION

Based on the research results, it was found that the implementation of online learning during the COVID-19 Pandemic at the University of Borneo Tarakan was quite effective. This can be seen from the students' learning reactions in the satisfactory category, the student learning process remains/does not change, student behavior remains/does not change, and student learning outcomes have increased.

Student learning reactions are related to student satisfaction in online learning during the COVID-19 pandemic. Learning reactions are one of the most important factors in assessing the success of learning conducted online. Student reaction is the impression of students participating in online learning activities through the use of electronic tools and internet networks. The reaction of students is related to a positive response to information technology, positive responses from students are supported by a stable internet network, and the ease of use of online learning applications used by lecturers. Internet and technology barriers are very common, even for students who don't anticipate problems. Most students experience learning barriers due to the pandemic, including distraction, increased anxiety, and feelings of less motivation, especially for college students (Gillis & Krull, 2020). The more obstacles faced in the online learning process, the less satisfying the learning reaction will be, and vice versa (Sun et al., 2008). Student learning reactions are not only supported by internet networks and online learning applications, but also by the ability of lecturers to adapt quickly. During online learning, not only students have difficulty adapting, but lecturers also have their difficulties in adapting, for example, the selection of online learning media/applications, presentation of teaching materials, giving quizzes that must adjust to the time allocation provided by the institution.

It is hoped that the improvement of learning quality will not be much different during online and offline learning. The determinants of perceived satisfaction with online learning are the quality of technical systems, quality of information, quality of service, quality of support systems, quality of students, quality of instructors, and perceived usefulness (Al-Fraihat et al., 2020). Not much different, (Ozkan & Koseler, 2009) that what determines the quality of online learning is system quality, service quality, content quality, student perspectives, lecturers' attitudes, and supportive problems. There are various obstacles experienced by students and lecturers in achieving good quality learning. There are various obstacles experienced by students, namely networking, finance, motivation, limited skills to switch from offline learning to online learning, and problems that exist in the students' families. While the obstacles faced by lecturers are network problems, lack of understanding of third party applications that can be integrated into online learning, the number of dependents of courses in one semester so that not all courses can be provided with attractive learning media.

Behavior is a change in the practice and skills of students. Student behavior plays an important role in contributing to the intention to use the e-learning system. Student behavior in online learning determines learning outcomes that will be achieved by students so that the benefits of online learning can be tailored to the needs of students. Research result (Hussein,

2017) demonstrated that behavior plays an important role in influencing student learning during the learning process.

Learning outcomes are the values obtained by students after implementing online learning. Online learning allows learning to be carried out anytime and anywhere. Adjustment of the material to the application is a determining factor for student learning outcomes.

CONCLUSION

About the government policy of learning from home, all learning activities are carried out online or commonly referred to as online learning during the Covid-19 pandemic. Online learning has become mainstream in the education sector and has been massively adopted in higher education. Online learning has developed rapidly with various technologies and devices to access learning resources, such as laptops, computers, smartphones, and tablets.

Online learning is like being the prima donna in the world of education amid the COVID-19 pandemic. With this increasing popularity, students' perceptions of the application of online learning have become a top priority for their education. Therefore, based on the results of online learning research during the COVID-19 pandemic, it was implemented quite effectively. This is evident from the reactions that are in the satisfactory category, learning is in the fixed category, the behavior is in the fixed category, and learning outcomes are in the increased category.

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