

# How Do Students Implement E-Learning During the Covid-19 Pandemic?

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## ABSTRACT

This study aims to find out how the implementation of E-Learning on students during the Covid-19 pandemic. The importance of this research is to find out how students carry out E-Learning well during the pandemic, there will be suggestions for other students in implementing E-Learning in order to get good results. This research is a phenomenological qualitative research. The subjects of this study were 19 third semester students of class 3B Master of Basic Education, Yogyakarta State University. Data collection techniques are interviews, questionnaires and documentation. Meanwhile, data analysis was carried out through data condensation, data presentation and verification. The results of this study indicate that students state that E-Learning is a new challenge for students during the Covid-19 pandemic. In order to overcome these challenges, students have several factors that influence the implementation of E-Learning in the Covid-19 pandemic, namely 1. Students are required to create a mindset to continue and want to learn; 2. Students manage time well between studying and getting enough rest; 3. Collaboration with peers to help each other and learn; 4. The level of student discipline in doing assignments and; 5. The sincerity of students in carrying out lectures. These factors affect student learning outcomes in achieving an average GPA of 3.79.

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## 1. INTRODUCTION

Coronavirus (Covid-19) is currently a worldwide pandemic (Roslinawati & Utama, 2021; Syahril et al., 2021). The Covid-19 pandemic prompted authorities to advise emergency distance teaching to educational institutions (Herwin et al., 2020; Saptono et al., 2021). This policy is to ensure that students are not left unemployed and break the chain of the spread of Covid-19. Therefore, conventional methods (traditional face-to-face teaching) have been replaced by online (E-learning) for a while in higher education (Aboagye et al., 2021; Ahmad, 2021; Faizal & Kusuma, 2021; Patricia, 2020; Roslinawati & Utama, 2021).

The use of E-Learning during the Covid-19 pandemic can be used by considering the situation of students and lecturers, so that they are familiar with the online system, learning can be done quickly (Jamaluddin et al., 2020).

E-Learning is defined as a new paradigm of online learning based on information technology (Gopal et al., 2021). The main E-Learning method and has become the most influential phenomenon in higher education institutions during this pandemic (Setiawati et al., 2020). The adoption of E-Learning has been proven to be able to shift the state of education from a traditional face-to-face teaching environment to a flexible type of education (Saeed Al-Marouf et al., 2020). The implementation of E-Learning is carried out almost all over the world during this pandemic. E-Learning is an educational innovation that involves elements of information technology in learning (Fitriyani et al., 2020). E-Learning has been widely practiced in the context of universities, as evidenced by a number of studies that explain it (Fitriyani et al., 2020; Hutauruk & Sidabutar, 2020; Lubis et al., 2021; Selvaraj et al., 2021; Setiawati et al., 2020).

But in reality, not all learning can be automatically transferred to E-Learning properly. In line with Hutauruk & Sidabutar (2020) stated that there are many obstacles faced by lecturers and students in the course of E-learning. Pham et al. (2019) stated that the overall quality of E-Learning services is positively related to E-learning student satisfaction, which in turn has a positive effect on student loyalty. E-Learning is one of the factors that affect the effectiveness of learning during a pandemic (Ahmad, 2021). Learning in Singapore prior to the pandemic has explored the perspectives, practices and intentions of E-Learning adoption within universities in the future. Educators had limited E-Learning experience prior to the Covid-19 emergency E-Learning. However, with the experience and available facilities, educators expressed their concern about E-Learning less (Müller et al., 2021).

Comparing developed countries with developing countries, it was found that developing countries face challenges such as poor internet connectivity, inadequate knowledge about the use of ICTs and weaknesses in content development (Aboagye et al., 2021; Abu Talib et al., 2021). Countries with limited resources, the transition to E-Learning requires a lot of adjustment to ensure E-Learning is held in the right way, and as good as possible (Gismalla et al., 2021). E-Learning which was carried out in Indonesia during the Covid-19 pandemic was also inseparable from these obstacles. It is hoped that the E-Learning problem can be minimized by educational institutions to the maximum (Faizal & Kusuma, 2021).

In addition to educational institutions, these problems are also a new challenge for students. Abu Talib et al. (2021) find students feel inequality in access, teaching Inadequate E-Learning, poor communication quality, technical difficulties, increased workload and stress, low technological literacy, poor work-life balance and some privacy issues. As a result of inadequate learning approaches, students face many challenges and difficulties including psychological problems (Hasan & Bao, 2020). Students expressed stress related to E-Learning learning and difficulties in completing assignments (Patricia, 2020). Stress is a psychological disorder that most people experience. Stress can affect students' learning and thinking abilities (Syahril et al., 2021). Students are faced with a new learning process where students need to be more independent in seeking knowledge and knowledge.

Besides that Jhon et al. (2020) technological challenges become challenges faced when E-Learning in the time of the Covid-19 pandemic. There are technical obstacles in the form of an unstable internet network, internet quotas, and lecturer explanations that are not clearly audible, while personal obstacles are difficulty consulting with supervisors, lack of students in understanding learning materials, and a sense of laziness to take part in E-Learning-based learning (Erickson et al., 2021; Putri & Munandar, 2021; Syahril et al., 2021). (Patricia, 2020) stated that many students reported that learning E-Learning was an unpleasant experience and expressed negative attitudes towards E-Learning. Not only do they find E-Learning more difficult, but they also lack resources (access to learning centers, libraries, interaction with lecturers, etc.). From the variety of student challenges during our E-Learning learning requires knowledge that can help students in implementing E-Learning well.

S2 Semester 3 students of class 3B Basic Education Yogyakarta State University (UNY) have been carrying out E-Learning lessons since they first entered lectures. Lectures at UNY use various E-Learning media such as BeSmart, Zoom, Google Meet, Whatsapp Group, and Google Classroom. The use of E-Learning media provides benefits for lecturers and students to access materials and interact in face-to-face conventional learning, and also outside the classroom through online platforms (Setiawati et al., 2020). After using E-Learning media From the results of student interviews, there were several obstacles such as signal difficulties, and limited quotas. In addition, there are personal obstacles such as a lack of understanding of the material presented by the lecturer and the emergence of a sense of laziness in learning.

However, with these various obstacles, student scores tend to be good and can understand the lecture material. Students carry out E-Learning lectures well and are familiar with E-Learning lecture situations. These findings are in accordance with research from (Bashier et al., 2020) found that although E-Learning learning was considered as less social contact, less social presence, synchronization of communication, and not being liked by students; E-Learning definitely has some positive effects on students, it is an important platform in times of crisis and also for people who are unable to complete their studies in person. Fitriyani et al. (2020) found that 8 indicators of learning motivation, namely concentration, curiosity, enthusiasm, independence, readiness, enthusiasm or encouragement, never give up, and self-confidence showed scores an average percentage of 80.27% including very good criteria.

This study presents answers related to previous research where students can answer the challenges of E-Learning lectures well. The findings of this study are expected to be a solution that can be imitated by students to carry out E-Learning lectures. Satyawati et al. (2021) stated that in order to use E-Learning continuously, it is necessary to evaluate and research related to online learning with the E-learning platform. Considering that E-Learning is a serious challenge for students, a solution is needed that can help lectures remain optimal during the Covid-19 pandemic. Based on the findings and challenges, the purpose of this research is to find out how students can carry out E-Learning well during the Covid-19 pandemic.

## 2. METHODS

This study uses a phenomenological approach. The phenomenological approach is a qualitative research rooted in philosophy and psychology, and focuses on the experience of human life (Rukin, 2019: 71). Phenomenological research seeks to understand the meaning of events and interactions on the subject in certain situations (Subadi, 2006: 17). The purpose of phenomenology is to see, clarify, and explain how to explain and understand a phenomenon so that reason is based on one's life experience (Rorong, 2020: 5). The phenomenon observed is the implementation of E-Learning by students during the Covid-19 pandemic.

The subjects of the research were 19 students of Master of Basic Education, State University of Yogyakarta, 3rd semester class 3B. This research began on August 31, 2021. Data were collected using interview techniques, questionnaires related to the online lecture process and documentation. Interviews were conducted with 6 students who were selected purposively, as the main data collection technique to obtain information related to how students carry out E-Learning during the Covid-19 pandemic. Questionnaires were conducted to support interview data. In addition, data collection is in the form of documentation to obtain supporting data that can strengthen the findings in the interviews. Data analysis techniques used in research this is a qualitative analysis. Data analysis is carried out through data condensation, data presentation and verification (Miles et al., 2014: 14).

## 3. FINDINGS AND DISCUSSION

### Students Conduct E-Learning Lectures

All E-Learning is classified as synchronous or asynchronous. Synchronous technology enables "live" interaction between lecturer and student (e.g., audio conferencing, video conferencing, web chat, etc.). While asynchronous technology involves a significant time delay between the instruction and its receipt (e.g., Email, previous video recording, discussion forum etc.) (Khalil et al., 2020). E-Learning lectures carried out by students use various media such as Zoom, Gmeet, BeSmart, Goggle Classroom, Goggle Form, Youtube, and WhatsApp Group.

The use of various kinds of media is said to be quite good, especially when using Zoom and BeSmart. The use of these two media is most often used when E-Learning. Both of these media can make it easier for students to learn and interact. Erickson et al. (2021) stated today, there are many potentially useful online video conferencing media that offer functionality including document sharing, embedded search engines, and access to online material.

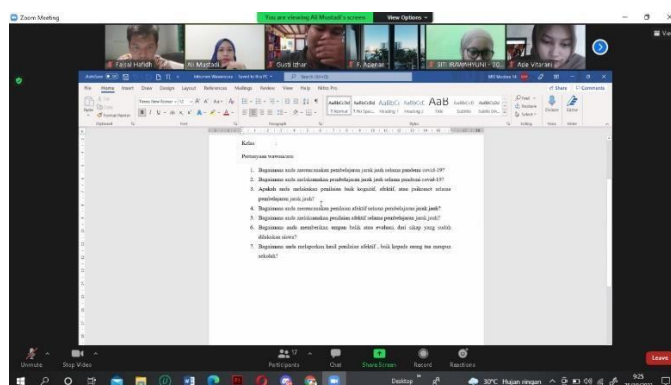


Figure 1. Lecture Process Using Zoom

Figure 1. showing the synchronous student lecture process using Zoom, it was found that the majority of students activated the camera and delivered presentations independently. Zoom is one of the online video conferencing media, it can display the faces of students and lecturers so that interactions can be well established. The use of Zoom aligns with Herwin et al. (2021) stated that synchronous learning more often relies on online face-to-face meetings via Zoom to form independent learning.



Figure 2. Display of Besmart E-Learning

Figure 2. shows the display of UNY's Besmart E-Learning. To access besmart, UNY students need to login first using UNY email. Besides Zoom, the media that is often used is BeSmart. BeSmart is UNY's main E-Learning, which can make it easier for students to collect assignments, and can comment on each other and provide input regarding assignments between students. In addition, with BeSmart, students can obtain teaching materials, lecture re-recordings, and e-books that have been attached by lecturers to each course. Besmart also has an online video conferencing feature that can be used during lectures.

Students stated that the E-Learning lecture had been carried out as much as possible and was quite good. The facilities received by students during E-Learning are considered quite good. There are several sectors such as attendance and access systems that are expected to be improved again so that E-Learning

lectures run better. The statement agrees with Gismalla et al. (2021) most students have a positive perception of E-learning. However, there are many challenges that are considered as inhibiting factors for utilizing electronic technology for the lecture process. The need for rapid adaptation of students, lecturers, and educational institutions so that lectures can be maximized.

In addition, there are internet speed limitations that can affect students in studying well. Internet use, requires a large data quota, the government has provided learning quota assistance which is expected to help. However, the unequal distribution of the quota given is not enough to be used for lectures every month, which is an obstacle for students. However, the students stated that they did not mind it. It was found that students were familiar with E-Learning lectures.

E-Learning can hone students' independence as well as open new experiences in finding learning resources. It is undeniable that the desire to learn is reduced compared to face-to-face. Therefore, students expressed the need to increase self-mindset to be serious in learning.

Table 2. Student Opinions regarding E-Learning Lectures

Statement	Strongly agree	Agree	Don't agree	Very not Agree
I am more enthusiastic about E-Learning than face-to-face lectures.	5,3%	31,6%	31,6%	31,6%
I am already familiar with E-Learning lectures.	52,6%	36,8%	5,3%	5,3%
My E-Learning lecture was interrupted due to limited internet access.	21,1%	21,1%	36,8%	21,1%
E-Learning lectures bother me because it costs more.	10,5%	52,6%	26,3%	10,5%
During the implementation of E-Learning lectures, I attended lectures in earnest.	26,3%	52,6%	15,8%	5,3%

Table 2. presents the findings obtained from the results of student opinion questionnaires related to E-Learning lectures. It can be concluded that students are more enthusiastic to carry out face-to-face lectures compared to E-Learning. However, the majority of students stated that they were familiar with E-Learning lectures. The findings from the questionnaire revealed that students were serious in carrying out E-Learning lectures. It was found that there were obstacles encountered by students such as limited internet access. However, students do not find it difficult to pay more for the use of internet access.

### Students Doing Assignments During E-Learning Lectures

Assignments received by students during E-Learning lectures are similar to face-to-face lectures, namely individual and group assignments. Students in doing assignments try their best to be able to do well. It was found that students searched for sources of books and information independently using the internet. In addition, students also use UNY e-Resources, as well as Google Scholar to search for journals and scientific research. In addition, students communicate with each other when they experience difficulty understanding assignments. It was found that students often discussed in class WhatsApp

groups or privately in understanding assignments and helping each other find learning resources difficult understanding assignments. It was found that students often discussed in class WhatsApp groups or privately in understanding assignments and helping each other find learning resources.

Figure 3. Display of UNY e-Resources



Figure 3. shows the UNY Library e-Resources view. E-Resources is a facility obtained by UNY students to be able to access the e-Resources of UPT Yogyakarta State University Library. To meet the needs of students, Yogyakarta State University subscribes to various electronic collection materials (e-journals and e-books) which can be accessed via UNY's email account. This facility can make it easier for students to access various e-journals and e-books from home. In addition to using the e-Resources provided by UNY, students also use Google Scholar. Google Scholar is a facility provided by Google since 2004. It is a service that allows users to search for textual topics in various publication formats. Google Scholar provides an easy way to search academic literature (Widianto et al., 2021).

For group assignments, students divide tasks between members using WhatsApp groups. Between students have the responsibility to work on each section to the maximum extent possible. The findings are in line with (Erickson et al., 2021) states that students conduct independent studies and reunite with colleagues to share and research findings and determine management plans. However, because they could not meet face-to-face, the students were constrained by misunderstandings about the division of tasks.

Table 3. Student Opinions Doing Assignments

Statement	Strongly agree	Agree	Don't agree	Very not Agree
I always do the given assignments seriously even though I'm studying E-learning.	31,6%	47,4%	21,1%	-
When having trouble doing assignments, I will ask for help/ask friends to explain via chat.	68,4%	10,5%	15,8%	5,3%
I always submit assignments on time even in the midst of the Covid-19 pandemic.	57,9%	31,6%	5,3%	5,3%

When I'm having trouble doing an assignment, I'll just copy a friend's assignment.	10,5%	5,3%	42,1%	42,1%
When I have trouble I will look from books or information on Internet.	73,73%	26,3%	-	-

Table 3. presents the findings obtained from the results of student opinion questionnaires when doing assignments. It can be concluded that students work on assignments seriously. Students look for sources of information on the internet when having trouble doing assignments. In addition, students also communicate with friends to ask for help or ask questions. It was found from the results of the questionnaire that if students had difficulty doing assignments, the majority of students did not just copy their friends' assignments.

### Student Learning Outcomes and Understanding

Students stated that they were satisfied and grateful with the learning outcomes they obtained. Students' gratitude cannot be separated from the implementation of E-Learning lectures which is certainly not easy to obtain maximum results. E-Learning, which is a new challenge for students, does not result in a low GPA (Gradual Achievement Index). The results of the final GPA of students reached an average of 3.79 and students who achieved cum laude scores (3.76) were 13 students.

Students stated that apart from the results of the GPA, understanding the material was also important. E-Learning lectures invite students to be able to study independently, due to limited lecture time. Limited time during lectures also has an impact on the delivery of material provided by limited lecturers. This finding is reinforced by Cho & Hong (2021) stated that the lack of interaction with lecturers was a concern for E-Learning lectures, due to the nature of the virtual platform, students reported that this platform did not provide the same level of interaction and interpersonal relationships as face-to-face lectures. The research findings state that even though students having problems with the limited delivery of material from lecturers, students are still not lazy to study independently.

Table 4. Submission of Materials and Student Independent Study

Statement	Strongly agree	Agree	Don't agree	Very not Agree
The lecturer explained the material clearly so that I was excited to learn.	15,8%	36,8%	47,4%	-
I do not understand the explanation given by the lecturer during the E-learning lecture.	5,3%	31,6%	47,4%	15,8%
I'm lazy to study because I can't understand the lecturer's explanation.	5,3%	21,1%	63,2%	10,5%
I choose shut up when not understand the lecture material.	5,3%	15,8%	47,4%	31,6%

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I read some books or information on the internet to add my knowledge.	52,6%	36,8%	-	10,5%
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Table 4. presents the findings obtained from the results of student opinion questionnaires related to the delivery of material from lecturers and independent study. It was found that students experienced a decrease in understanding of the material presented by the lecturer during E-Learning lectures. However, the reduced understanding of the lecturer's explanation does not make students lazy to study. it was found that students preferred to read books or information on the internet rather than being silent when they did not understand the lecture material.

#### 4. CONCLUSION

The findings that emerge from this study are that there are several factors that can assist students in implementing E-Learning well include: 1. Students create a mindset to continue and want to learn even though E-Learning lectures; 2. Students can manage their time well in order to study, and have enough rest; 3. Collaboration between fellow students in helping each other, and learning; 4. Student discipline when doing assignments and; 5. The seriousness of students when carrying out lectures. The variety of technologies that can help students learn independently and collaborate with colleagues is an convenience that can help students.

This study concludes that many students think that E-Learning is a new challenge, and requires good adaptation in its implementation. Students implement a variety of factors that can help obtain good results. The implementation is a testament to the success of adapting students. This adaptation has a good impact on student learning outcomes. Student learning outcomes can be declared good with an average of 3.79. However, please note that the sample size is limited, which is the weakness of this study. Therefore, there is potential to conduct further research with larger randomized controlled trials, and evenly related to E-Learning.

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