

# University Students Online Learning System During Covid-19 Pandemic: Advantages, Constraints and Solutions

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## ABSTRACT

The aim of this study is to explore the advantages, constraints and solutions of online learning for private university students in Indonesia which are being implemented as a result of the pandemic of COVID. In this study using a qualitative method, using a survey method to private university students in Indonesia after six weeks of online distance learning as respondents, where distance learning is carried out using an online system. A total of 100 students participating in distance learning filled out a semi-structured questionnaire that was distributed to them online. The result of this article is the advantage that students feel with online learning is that they can listen at home, they are not limited by the place, they can listen anytime anywhere, and they are not limited by time or space grouped into comfortable educational themes. environment, utilization of free time, network instability, the voice of lecturers and teaching materials are not synchronous, they cannot take classes when the wifi is not connected, the concentration is reduced. Suggestions for improvement include increasing network instability, activating interaction through increasing one-sided interaction, and conducting face-to-face classes for practice.

**Keywords:** Online Learning System, Covid-19 Pandemic, University Students

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## INTRODUCTION

COVID-19 has changed the lifestyles of people around the world, people are advised to keep their distance and limit travel as often as possible. and these security measures apply to education as well. In Germany, all schools are closed until April 20, 2020. The state government has recommended distance learning and additional learning materials via an online system. In the UK, although the government has not issued joint guidelines for online education in response to the COVID-19 pandemic, online education has been implemented in certain schools depending on their status. After the first case of COVID-19 in South Korea, the local Ministry of Education postponed the start of the year schools four times, and since then they have implemented a phased online approach for the start of the semester. Many universities in China have decided to cancel face-to-face classes and implement online learning for student and faculty safety (Wang et al., 2020). In Indonesia several universities cancel courses and have chosen to continue online learning. School administrators, teachers, and students are making efforts in various ways to adapt to the new online learning environment.

Currently the world is being shocked by the COVID-19 (Corona Virus Disease) outbreak which reportedly

originated in the city of Wuhan, China since December 2019 (Lee, 2020). WHO declared this outbreak a global pandemic because the transmission of this virus was very fast and most countries in the world were also exposed to this virus. Recent data shows the number of confirmed patients is 9,590,890 positive cases in 216 countries around the world (Update: 24-

06-2020). Indonesia is one of the countries that has been exposed to this virus from early March to 27 June 2020, confirmed 52,812 positive cases spread across 34 provinces and 415 districts / cities (Task Force for the Acceleration of Handling COVID-19 Indonesia, 2020). According to Sunitha et al (2020) the ongoing COVID -19 is a continuous pandemic that started in December 2019 in Wuhan, China and was declared a pandemic by WHO on March 11, 2020. As of March 16, more than 169,000 cases were reported and more than 140 countries were affected. Major outbreaks occurred in China, South Korea, Iran and Europe. 6,500 people have died and more than 76,000 have recovered from the disease. The aim of this study is to focus on the current situation of COVID-19 and its social impact on the international community. . Strong measures are taken to reduce outbreaks: personal precautions: use face masks, hand hygiene and self-quarantine; environmental measures: such as surface cleaning and community action: closure of schools and colleges for social distancing, canceling large gatherings and participation in public events. In Wuhan, the central authorities imposed a transportation ban on January 23. Due to the coronavirus outbreak, xenophobia, high prejudice, racism and cases of suspicion, fear and hostility have been reported by Chinese people in many countries, such as North America, Europe and the Asia Pacific region. Another major impact of disease outbreaks is the cancellation of major events in the film, sports and other industries. Many concerts, music festivals, fashion shows and conferences have been canceled or postponed. The government has temporarily closed all schools across the country to limit the spread of the coronavirus and as of March 14, some 420 million children

are out of school. Some examples of shortages of essential goods, panic buying, logistical operations, increased use of personal hygiene equipment due to the coronavirus outbreak. There are nearly 91,000 active cases in 73 countries and many restrictions on social and economic activities have a negative impact on consumer spending and supply chains around the world. Hence, the impact of COVID-19 will be significant.

The ongoing COVID -19 (Coronavirus Disease 2019) is a continuous pandemic which is a respiratory syndrome caused by coronavirus 2 (Who.int, 2020). The outbreak started in December, 2019 in Wuhan, China and was declared a pandemic by the WHO (World Health Organization) on March 11, 2020 (WHO Director, 2020). As of March 20 more than 245,972 cases were reported and more than 160 countries were affected (Worldometer, 2020). Major outbreaks have occurred in China, South Korea, Iran and Europe. 10,000 people have died and more than 88,400 have recovered from the disease (Worldometer, 2020). This virus spreads among people in the same way influenza uses respiratory drops caused by sneezing and coughing (WHO, 2020). It usually takes 2 to 5 days to show symptoms after exposure to the virus but it can also take up to 14 days (WHO, 2020). Common symptoms are fever, respiratory problems and cough (WHO, 2020). More complicated cases can include symptoms. symptoms such as severe respiratory pressure syndrome and pneumonia. Currently, there are no specific antibiotics or vaccines to treat it, but researchers are working on them. Efforts are focused on curing symptoms and the associated treatment given to patients. The following precautions are recommended: wash hands frequently, keep physical distance from people, cover mouth during coughing, self-isolate for suspected persons or visiting infected countries or coming into contact with infected people (Rothan&Bycldy, 2020).

**Impact on Education** The government has temporarily closed all schools, across the country to limit the spread of the coronavirus and as of March 14, some 420 million children are out of school. More than thirteen countries have temporarily closed all their schools which has affected students of nearly all grades. In addition, nine countries including India have closed their schools at the local level to prevent COVID -19, which has affected more than 85 million children (United Nations News, 2020). Even though schools are temporarily closed, even when it brings a thorny economy. large and social costs. UNESCO has recommended distance learning programs and other online education platforms so that teachers and schools can reach students and education disruption can be reduced during school closures caused by COVID -19 (UNESCO, 2020)

The Indonesian government's policy in responding to this outbreak is to apply the principle of social distancing to all levels of society, even in several big cities in Indonesia the PSBB (Large-Scale Social Restriction) is also implemented to break the chain of spreading this virus. This policy has an impact on education in Indonesia, especially on the learning process for school students. The application of social distancing at the primary and secondary school levels continues until conditions are declared conducive. During the pandemic, schools are closed but the learning process must continue. So far, no online learning system has been carried out simultaneously. (Sun et al., 2020). During the pandemic, online learning has now been carried out in almost all over the world (Goldschmidt, 2020). So, in this online learning, all elements of education are required to be able to facilitate learning so that it remains active even without face-to-face contact. Teachers as the main element in formal education are encouraged to adapt to the implementation of learning

that originally used conventional face-to-face methods and switched to online learning.

According to Daryanto (2014), Fadlillah (2014), Keyes (2010), Kunandar (2013) that the theme of renewal and improvement in the 2013 Curriculum is to create Indonesian people who are capable of creative, productive, innovative, proactive, and affective thinking through the development of attitudes. (know why), skills (know how), and knowledge (know about what) integratively. This integration is an effort to improve Indonesia's ranking based on the TIMSS (Trends in International Mathematics and Science Study) study and the Program for International Student Assessment (PISA), where in 2011 students were only able to reach level 3 out of 6 (six) levels of cognitive ability related to higher order thinking skills (critical thinking, creative thinking, analytical, systematic and logical to find alternative solutions to problems through empirical data exploration in order to foster scientific attitudes). Likewise, the ability of Indonesian students in understanding complex information, solving problems, using tools, procedures, solving problems and carrying out investigations is still low and needs to be improved. This study will discuss the effect of the Covid-19 pandemic on the learning process in schools, the influence on students, the influence on parents and the influence on the learning process for implementing curriculum 13. Research on other learning models was also conducted by Setyani et al (2020), Murtono et al (2019), Ismaya et al (2019), Utaminingsih et al (2020).

The implementation of online learning is not limited to crisis situations such as the current pandemic, online learning has been suggested as a substitute for face-to-face learning (Stacey et al., 2004). As part of online learning, video-based distance learning, which allows two-way interaction between spaces Different classes using remote imaging systems, have been widely used since the 1990s (Jeong, 2010). In addition, video-based distance education, which is recognized as an online education method, is suitable for the 21st century educational environment to facilitate two-way interaction, participation in learning, class achievement, and levels of satisfaction similar to that of face-to-face classes (Jeong, 2010). It can be argued that this form of distance education contains the most similarities to face-to-face classes of all existing forms of online learning. However, unlike existing online courses which are conducted according to the planned course design. Emergency distance teaching is an alternative, teaching method. while in response to crisis situations (Wang et al., 2020). Effective online learning must consider various factors such as speed, student-teacher ratio, pedagogy, online teacher role, online student role, online communication synchronization, online assessment role, and feedback sources. However, due to the current classroom design it is only a temporary solution for emergency distance teaching. Because emergency distance teaching was operated for a time without a planned classroom design unlike existing online learning, both students and teachers had difficulty adapting to it. Institutions operating distance teaching should consider support that can be easily used, effective, and addresses various factors of distance learning such as interactions with students and their parents or guardians, the infrastructure required, the ability of personnel to operate distance learning, meeting the need for learning, difficulties experienced by students, school personnel, and outcomes, performance, and feedback from students and staff (Hodges et al., 2020). As emergency distance teaching methods differ from school to school that are already equipped with online learning systems while others are not, the learning process and effectiveness are recognized differently by students, who are consumers of education. Additionally, the response to

emergency distance teaching may differ depending on student preparation or motivation.

Although face-to-face classes have been recognized as a form of learning today, it is necessary to prepare for education using a distance system due to unexpected changes in the environment that may occur in the future. Issues such as infectious diseases, war, regional conflicts, and other forms of natural disasters can hinder face-to-face instruction, and remote teaching must be carried out in collaboration with other entities to resolve the problem (Bozkurt & Sharma, 2020). Therefore, the aim of this study is to explore the advantages, constraints and solutions of online learning for private university students in Indonesia which are being implemented as a result of the pandemic of Covid-19.

## **METHODS**

In this study using qualitative methods, using a survey method to students of 5 private universities after four weeks of online distance learning as participants, in which distance learning is carried out using an online system. A total of 100 participating students who participated in distance learning filled out a semi-structured questionnaire which was distributed to them online. The questionnaire contains questions such as, "What features of online learning are you currently doing?", "What features of distance learning are you currently dissatisfied with, and why?", And "What features of distance learning are you currently experiencing. ongoing do you want to be improved, and why? ". A total of 20 items were recorded in response to questions about what locations students chose to participate in online learning. Students identified their home as the most commonly used location with 80 responses, followed by warungs with 2 responses, reading rooms with 1 response, public places with 1 response. A total of 20 items were recorded in response to questions about what technology students use when engaging in emergency distance learning. Students identified laptops as the most commonly used media with 100 students followed by desktop computers with 10 students and mobile phones with 10 students

## **RESULT AND DISCUSSION**

### **The advantages of online learning**

Students identify some of the advantages of distance learning. A total of 100 responses were examined. A comfortable educational environment was the most common advantage identified for online learning with 32.01% responses. Student responses were similar to those they could listen to at home, they were not limited by the place, they could listen anytime anywhere, and they were not limited by time or space grouped into a comfortable educational environment theme. Time utilization emerged as the highest theme. second with a response rate of 29.97%. Some examples of responses classified under this theme are they do not spend traveling time, their travel time is saved, travel time load has decreased. Smooth interaction also shows a high response rate with 21.65%. An example of the responses grouped into this theme is that they can speak comfortably over the chat, they can more freely ask questions to the teacher. They feel like they are taking a one-on-one class and the interaction seems to be smooth, they can ask questions more easily than offline lectures. Another important advantage of reusable data can be used, reducing transportation costs.

### **Disadvantages of distance learning**

A total of 100 responses were recorded regarding complaints by distance learning. The most frequent complaint was network instability, occurring in 39.16%. Some opinions that are often expressed about network instability are that delays often occur, teachers' voices and teaching materials are not

synchronous, they cannot take classes when wi-fi is not connected. The second most frequent complaint involved unilateral interaction with a response rate of 17.41%. Interaction is not possible and the quality of the educational environment is poor, Content is not conveyed accurately, Direct interaction is not possible. Teachers making progress on their own without interaction with students is a common response. The third most frequent complaint was the reduced concentration of 29.13% of responses. Many students answered that it was difficult to concentrate on class for long periods of time. Other themes identified in the dissatisfaction response were insufficient data provision, dissatisfaction with assignment changes, constraints on team projects, reduced academic achievement, unprepared class design, reduced class understanding, class dissatisfaction, class dissatisfaction, grading, administrative dissatisfaction. , dissatisfaction with relationship formation, and dissatisfaction with the educational environment.

According to Putri et al (2020) and Purwanto et al (2020), they reveal some of the challenges and obstacles experienced by students, teachers, and parents in online learning. Challenges associated with students are: limited communication and outreach among students, higher challenges for students with special educational needs, and longer screening times. Parents saw the problem as more related to less discipline at home, more time spent helping their children study at home - especially for children under 4th grade in Primary School, lack of technology skills, and heavy internet bills. higher. According to Putri et al (2020), teachers identify more challenges and obstacles, including some restrictions in the choice of teaching methods that usually apply in regular face-to-face classes, less curriculum material coverage, lack of technological skills that hinder the potential for online learning, lack of ability - multiple sources in Indonesian resulting in more time needed to develop e-content, longer screen time as a result of creating e-content and providing feedback on student work, more intense and time-consuming communication with parents, challenges for better coordination with teachers, principals, and higher internet bills.

### **Improvement in distance learning**

Students most often cite the unstable network as an area for improvement. Some examples of comments about improvement include, It would be better if the sound quality or video quality were improved, they were disappointed when the screen had low video quality due to network instability, the screen was very out of sync with the sound. This area should be increased. In addition they expressed a desire to share recorded lectures. Other suggestions include, Class practice should be given, The scoring system should be shifted to an absolute grading system, Attendance problems should be resolved, The systematic environment should be supported, Substitution assignments should be increased, School fees should be reduced, Team project activities should be increased.

### **Learning environment**

Homes are the most common place to participate in temporary distance learning as a result of COVID-19, meaning that many homes are equipped with environments that allow online learning. According to Glen Earthman (2002), a school room or classroom that can be too complex and crowded with many people can create a variety of problems, and as a result student academic achievement can suffer. These results suggest that the online learning environment, which most students perceive as comfortable, is an important element that can positively affect academic achievement.

To produce meaningful academic achievement, it is necessary to understand how students make use of different media (Surry & Ensminger, 2001). Laptops are most often used for class. There are students who take classes via their cell phones. However, the number of students is small. Unlike face-to-face classes, advance, learning outcomes in distance learning may depend on students' access to high-quality media, which can differ depending on the student's economic situation. Students face difficulties as a result of poorly designed classes in crisis situations, and students are dissatisfied with injustices in education and difficulties in obtaining educational resources (Affounh et al., 2020). Consequently, measures to increase access to necessary educational materials must be considered so that student academic achievement is not negatively affected by the economic situation.

### **Satisfaction with online learning**

The students who participated in this study were satisfied with the free and comfortable educational environment offered by distance learning. Basou and Mupinga (2007) stated that the advantage of online learning is that students can take classes from any location provided they have access to a computer, which this study reaffirmed. In addition, the participants identified that the class interactions were smooth, they could easily use class material, and they could concentrate better in class. The fact that participants highlight their satisfaction with online classroom interactions, which is usually an advantage of face-to-face classes, could indicate a stronger shift towards distance learning in the future. Additionally, some student responses indicated that they were more satisfied with being able to listen to questions and feedback in a one-on-one setting compared to face-to-face classes, suggesting that there are unique advantages to distance learning.

Students were also satisfied that online learning allowed them to reduce their travel time to school and use that time for other activities. Even though students could not freely choose their class time, the results still indicated that students were satisfied with the fact that they could more meaningfully use the time they had previously had to invest in travel between face-to-face classes. In addition, students suggested satisfaction with their academic performance. Edemeyer presents an independent and comfortable environment that suits learners and provides a sense of individuality and responsibility as some of the main characteristics for online learning (Simonson et al., 1999). From the results of this study, students who are satisfied with their academic achievement can be said to have demonstrated ability required to participate in distance learning. According to Buchanan (1999), some of the qualities for success in distance learning are independence, understanding of data, and the ability to manage time. As these qualities vary per student, the qualities necessary to succeed in distance learning must be clearly presented so that students can be prepared. By easily accessing learning materials or following face-to-face videos, students have a faster time to study, especially studying at home, so they don't have to spend a lot of time going to campus or school as usual. In addition, students do not need time to wait for the teacher, who sometimes "drags" so it requires a lot of wasted time. With a learning system like this, at least education is more advanced, although slightly. One of the advancements is that Indonesian education has been able to take advantage of existing technology and the way of learning education in Indonesia is more varied with online learning. Learning online that does not take a lot of time can allow students to develop themselves in other things, such as reading, writing or

drawing. That way students do not just study, or seek knowledge, but can develop their talents and potential.

### **Dissatisfaction with online learning and improvement**

Suggested improvements for online learning are often associated with student dissatisfaction. For example, students suggest improvements around areas of dissatisfaction such as increasing network instability, activating interactions through increased one-sided interactions, and conducting face-to-face classes for exercise. The greatest dissatisfaction with distance learning is due to instability, networks, and students were cited as having network difficulties that disrupt their class. Networking is an important factor for the online learning environment. Students highlighted the increase in networks, which serve online learning classrooms, as an important consideration. In distance learning, networking is not only a method of distributing educational material, but also a means of promoting interaction between teachers and students or among students (Trentin, 2007). Dissatisfaction with interactions includes communication with teachers as well as the direct dissolution of relationships between friends, class and lack of exchangeable feedback between students. According to Tu and McIsaac (2002), online communication varies according to keyboard skills, because proper communication is difficult if keyboarding skills are insufficient, teachers must understand the level of student keyboarding skills.

Perceptions of interaction are often cited as satisfying and unsatisfactory in the process of accepting distance learning. These results indicate that interactions are more influenced by individual student personal characteristics than by distance teaching systems. As a result, teachers and students can be satisfied with interactions only when they fully learn the functions of the online platform and use it smoothly, participate actively, and invest time in communication.

Academic achievement is also discussed as an area of satisfaction and dissatisfaction, and it can be seen that the effect differs depending on student characteristics and abilities. Concentration serves as an important factor for academic achievement. Wei Bao (2020) says that online class speed must be adjusted to effectively deliver class content while reducing problems regarding student concentration. Therefore, different teaching methods should be used for effective learning even in distance teaching, which can be implemented in real time, as is the case with face-to-face teaching. The role of teachers and learners is an important element in effectiveness of distance learning. Students want to be provided with the tools necessary for classes to take place in a realistic environment that allows smooth participation and active teaching of the instructor. Online learning is unusual and challenging for students, but it is clear that teachers also have a hard time. According to Trust and Whalen (2020), teachers also feel overwhelmed and unprepared for online learning and suffer from internet connectivity problems or unclear educational policies, such as their students. Therefore, to improve distance learning, the difficulties experienced by students as well as faculty must be understood, and a way to solve them must be found. According to Schlesselman (2020), the potential for future crisis situations that require the implementation of remote classes is high. Therefore, it is time to prepare online learning where students can actively participate. This means that the distance learning that is currently being implemented must be more systematic and planned. According to Cavanaugh (2005), online learning requires more time to prepare, revise, and interact with than face-to-face classes. Because of this, it may be difficult to ascertain student achievement using only technological media. Based on the student experiences presented in this study, it should be



possible to reduce complaints while maintaining the advantages of emergency distance learning. even though studying at home the students cannot live in peace, because they have to face the tasks given by the teacher. Time at home is spent doing piling up chores. Teachers give assignments so that students still get grades, and learning materials. Students who usually buy internet packages once a month, can now buy internet packages two to three times a month.

In addition, those who use wi-fi also have an effect, because the predetermined internet limits experience excessive use plus sometimes wi-fi has problems, whether from the company or other things. Online learning systems save more time, but online learning is not necessarily more effective in accepting learning materials for students. Many complain that how to study online only provides piling up tasks, which add to the stress of students while at home. In addition, conducive conditions in the house may make someone receive lessons or not. If it is conducive, maybe it will be easier to accept learning, but if the house is not conducive the students will have difficulty receiving lessons. If at school or on campus there is something that is difficult to understand or there is a difference of opinion, it may be easier to discuss it, but in terms of learning online it will be difficult. Why? Because in this learning method, if one person speaks, there is a possibility that the other speaks and the teacher is difficult to control the situation when many are talking, in other words the voices in the meeting video overlap. In addition, students who have poor network connections or cell phones that are "slightly damaged" will have difficulty hearing the overlapping audio.

The online learning activities that have occurred during the past month can be said to be quite successful, despite the "shock habit" among students and teachers. Regardless of whether or not the online learning method is effective, at least this way of learning can still fill the time of students and teachers while at home. For your information, all that is written above is the result of interviews with experienced students firsthand. Although e-learning offers the convenience, flexibility and ability to access classes remotely on the participant's own time, participants may feel isolated. This is because online learning is an individual act of joint activity, which may give the feeling that they are acting entirely on their own. As technology advances and benefits of e-learning, students can now engage more actively with professors or other students using tools such as video conferencing, social media and discussion forums. E-learning requires the use of computers and other similar devices, which means that eyestrain, poor posture and other physical problems can affect the learning process. When running an online course, it is a good idea to send guidelines on proper sitting posture, desk height and recommendations for regular rest.

## CONCLUSION

The advantages that private college students feel with online learning is that they can listen at home, they are not limited by that place, they can listen anytime anywhere, and they are not limited by time or space grouped into a comfortable educational environment theme, the use of free time, network instability, teacher voice and teaching materials are not simultaneously, they cannot take classes when wi-fi is not connected, concentration is reduced. Suggestions for improvement are increasing network instability, activating interaction through increasing one-sided interaction, and conducting face-to-face classes for exercise. The results of the data on student perceptions of online teaching show that students have a strong desire to excel academically. To help student learning and achievement, the environment and In

addition, it is necessary to provide easy-to-understand, practical manuals for teachers and students given that they are unfamiliar with this educational method and the design of the teacher's classroom has been poor compared to existing online learning. satisfactory content means that in addition to the survey results, steps to enable distance learning can be prepared based on content. Opinions of various students, instructors, and administrators should also be reflected. Lastly, it is necessary to continuously compare and analyze different types of online learning in order to continue improving emergency distance teaching going forward. This study was conducted four weeks after the completion of emergency distance learning. The experiences in this study may differ between students who have experienced different semesters of teaching. Therefore, the perspective of students over several periods of time during emergency distance learning should be examined. In addition, this study has a limited number of students, so it does not reflect the experiences of all students. Because this study was conducted in one junior high school, the results do not take into account online learning that occurs at other schools.

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