Strategy of Online-Based Learning in Overcoming Facing the COVID-19 Pandemic

Agus Setiawan¹, Akhmad Bukhari², Muhammad Arbain³, Khairul Saleh⁴, Zulkifli⁵, Ahyar Rasyidi⁶, M. Anshari⁷, Muhammad Hafiz⁸

1,2,4 Universitas Islam Negeri Sultan Aji Muhammad Idris Samarinda, Indonesia
 3 Universitas Borneo Tarakan, Indonesia
 5 Sekolah Tinggi Teknologi (STITEK) Bontang, Indonesia
 6 Sekolah Tinggi Agama Islam Banjarmasin, Indonesia
 7 Sekolah Tinggi Ilmu Tarbiyah Darul Hijrah, Indonesia
 8 Sekolah Tinggi Agama Islam Diniyah Pekanbaru, Indonesia
 Email: agus.setiawan@iain-samarinda.ac.id

Abstract

The purpose of this study is to describe how religion views the corona virus? Has the corona virus pandemic disrupted the higher education system? What is the strategy for higher education so that the teaching and learning process can be carried out in the midst of a pandemic? The method used is a qualitative descriptive research approach. The techniques used were observation instruments, interviews, and questionnaires using Telephone Lines, WhatsApp, and Zoom with research subjects, namely lecturers and students of IAIN Samarinda, University of Borneo Tarakan, and the University of Mulawarman. Data analysis used the Jujun Sumantri model with two analysis methods: critical analysis and content analysis. The results of this study are; (1) compiling a learning curriculum during a pandemic; (2) prepare human resources by training in the form of tutorials through webinars; (3) creating digital-based learning materials; (4) providing network infrastructure by providing credit subsidies for lecturers and students; (5) cooperate with various parties in the information and communication system network; (6) evaluating online learning in each semester.

Keywords: Online-Based Learning, COVID-19 Pandemic, Disruption Learning.

INTRODUCTION

At the end of 2019, the world was again in shock with the presence of a new type of disease outbreak from the flu coronavirus cluster. The outbreak of a new type of disease from the flu group of corona virus is not the first time this has occurred but has also hit the world in several decades of time and has killed hundreds, thousands, and millions of people around the world. In historical trajectories, the first flu outbreak to hit the world was the Spanish flu outbreak in 1918. This outbreak was the most ferocious flu outbreak ever in history, this outbreak then spread to the United States, West Africa, and France, until it finally spread throughout the world, including Indonesia. The Spanish flu lasted from 1918-1920 and has infected 500 million people, the death toll from 17 million to 50 million, which researchers call the deadliest pandemic in human history (Dittmann et al., 2008; Tumpey et al., 2005).

Then in 2003 another flu virus known as Severe Acute Respiratory Syndrome (SARS-Cov) or known as bird flu (H5N1) appeared in China; experts began to focus on the causes and find results if this outbreak was a new form of corona (Kumar, 2020). After that came another flu virus outbreak, also known as Swine flu (H1N1) in 2009 in America. In 2012 there was another flu virus outbreak in Saudi Arabia known as Middle East Respiratory Syndrome (MERS-CoV) or known as Camel flu, and then not long ago, the Avian flu epidemic reappeared in 2016 in Indonesia (Kim, 2019). Then in December 2019, a new coronavirus outbreak appeared again which the world community called Corona. The outbreak of this new type of disease by the World Health Organization (WHO) became known as Coronavirus Disease 19 (COVID-19 or 2019-nCoV-2). From the various flu virus outbreaks above, the corona virus is not stable, the coronavirus turns out to be able to mutate and adapt and transmit from animals to humans (zoonoses) and become more virulent so that it can cause large numbers of deaths.

Covid-19 is an infectious disease caused by acute respiratory syndrome coronavirus 2 (Sars-CoV-2). The disease was first discovered in December 2019 in Wuhan, the capital of Hubei Province, China, and has since spread globally, resulting in the 2019-2020 coronavirus pandemic. WHO then declared the 2019-2020 coronavirus outbreak as an International Public Health Emergency (PHEIC) on January 30, 2020 and a pandemic on March 2020 (Samat et al., 2020). This disease outbreak has shaken the world community so much, considering that the virus infects nearly 200 countries in the world; this includes

Indonesia. Various efforts to prevent the spread of the Covid-19 virus have also been carried out by governments in countries in the world to break the chain of the spread of Covid-19, which is known as a lockdown or social distancing.

Covid-19 has disrupted all aspects of human life in the world, both aspects of health, political economy, social, education, and religion (Heri Kurniawansyah, 2020; Wishnu Mahendra Wiswayana, 2020). First, Health. The rapid transmission of Covid-19 has caused many people to die quickly from day to day, moreover, this virus can survive on inanimate objects for three hours, in addition to the transmission through sneezing or coughing splashes with a splash distance of up to 5 meters. Therefore, the rapid spread and transmission of this virus resulted in overwhelming medical professionals and weak immunity so that much medical personnel became infected and even died. Therefore, WHO implements various health protocols that aim to break the chain of spread of this more widespread virus by staying at home, physical distancing, social distancing, diligently washing hands with soap or hands sanitizer, using masks, and enforcing lockdowns or regional quarantine - which the Indonesian government later translated language as Large-Scale Social Restrictions.

Second, the economy. As a result of the attack of this invisible enemy (Covid-19), many countries have been forced to lay off (layoff) a large number of their employees, resulting in a new disaster, namely the increasing number of unemployed, which of course has an impact on increasing the poverty rate which is linked to the high crime rate in various countries in the world, including Indonesia.

Third, politics. With Covid 19, many countries suffered losses because political diplomacy between countries was not going well. Thus, both superpowers such as America, China, and other developed and developing countries are experiencing a severe crisis.

Fourth, social. Covid 19 has had a significant impact on the social aspects of society. Many people experience difficulties in their lives, especially in carrying out their lives because of layoffs due to the economic crisis. Many poor people cannot eat, so they only hope that the government will help assist in money and basic needs.

Fifth, education. Besides, Covid 19 has disrupted the education system, which is usually done face to face and then turned into an indirect education system (online) in the form of distance learning. Online learning poses challenges that students may never face in face-to-face learning environments (Ariffin et al., 2021). All countries, including Indonesia have implemented this online-based education system at every level, both primary, secondary, and higher education levels. All educational activities, whether learning, research, or seminars, are carried out online at each home using various digital applications such as websites, zoom, google, whatsaap, webinars, edmodo, moodle, and various other digital applications to support the education system to keep it going. Running effectively and efficiently (Indrawati, 2020; Suni Astini, 2020). Teaching and learning from home is a shift in classroom teaching that provides temporary access to education quickly and reliably (Rahiem, 2021).

Sixth, religion. The spread of various positive corona cases in all parts of the world also has an impact on the religious aspect (Supriatna, 2020). Various religious rituals in public spaces around the world were temporarily suspended until the WHO announced that the emergency response to this major disaster had ended. The purpose of closing various houses of worship and religious activities is to reduce large scale associations of people, as this, if left unchecked, can lead to an increasingly massive level of transmission. Therefore, each country issues various policies for its people to continue working, studying, and praying at home and still adhering to health protocols so that the chain of Covid-19 spread quickly ends and ends. Even though, the result of this regulation's stipulation has caused a lot of resistance from the community, this is a form of state policy that must be obeyed together (Maliki, 2020).

Of the five concepts of safety that must be safeguarded, religion also pays attention to and positions the importance of maintaining the safety of the human soul so that it can protect its religion, if the human soul is sick, then everything will automatically stop especially if the soul dies then it will no longer be able to maintain its religion. , his mind will also die, can no longer take care of his offspring and also protect his property. That is why Islam teaches that maintaining mental safety and maintaining health (adhering to health protocols) is the solution to jihad against the Covid-19 outbreak, which until now is still sweeping the world, and no cure (vaccine) has yet been found.

Based on these studies and findings, there are several things to be examined in this study: What is the corona virus's religious viewpoint? Has the coronavirus pandemic disrupted the higher education system? And what is the strategy for higher education so that the teaching and learning process can be carried out in the midst of a pandemic? With the answers to these three questions, it is hoped that this paper will be able to provide solutions to higher education in order to design its education system following the current situation and conditions, namely using a distance learning system using virtual classes as a learning pattern in the 22nd-century digital era to support the realization of Cyber University.

LITERATURE REVIEW

Corona in a Religious Perspective

If you trace the track record of disease outbreaks that have hit the Muslims in ancient times, it was during Iraq and Syria's conquest. During the fierce war in Yarmuk, the Muslims settled in the land of Syria. Then came the corona disease epidemic that killed approximately 25,000 people (Ash-Shufiy, 2007). Therefore, it is not surprising that scientists, scholars, and ustadz relate this incident to the Covid 19 disease outbreak because indeed the Corela disease outbreak is very similar to the Covid 19 outbreak happening today which also claimed many lives.

One case of this epidemic also occurred in the year 18 Hijriah, which was called Tha'un Amwas (Amwas plague). Amwas itself is the name of a small town between Quds and Ramallah (Palestine), the place where the plague first appeared, then spread throughout the land of Syria. Alwaqidi in Nadiah said that during the Amwas outbreak, as many as 25,000 Muslims in Syria died. Some say 30,000 people, as mentioned by *Ibn Kathir in Al-Bidayah wa an-Nihayah* (Thayyarah, 2013).

Likewise, with the emergence of the Coronavirus outbreak that occurred in this century. The Corona virus outbreak does have a low vitality rate, but the transmission is so fast, that this virus is categorized as a pandemic outbreak which has now spread to nearly 200 countries in the world, including in Indonesia, which is now increasingly concerning.

Based on data published by the World Health Organization (WHO), which was reported by Kompas.Com from the Worldometers page, it was stated that the global spread of the Corona virus was still increasing from day today. The total number of confirmed Covid 19 cases in the world was 14,844,353 (14.8 million) cases as of Tuesday, July 21, 2020. Of these patients, 8,896,621 (8.8 million) patients have recovered and 612,585 people have died. Indonesia as reported by Kompas.Com, the spread of the Covid 19 disease outbreak has now reached 89,869 cases on July 21, 2020, with details of 48,466 patients recovered and 4,320 patients died (Purnamasari et al., 2020).

Seeing the rapid increase in numbers in cases of this corona virus, Prof. Dr. Abdurrazzaq bin 'Abdil Muhsin Al-'Abbad Al-Badr at his Scientific Islamic Study which was held on 14 Rajab 1441 H / 09 March 2020 AD, he said that currently humans talk a lot about a big disaster and are feared by most humans, namely viruses. which is known as Corona. In which humans talk a lot about the effects and dangers caused by this virus. They also talked about ways to avoid and survive the virus. Then he explained about the instructions of the Al-Qur'an and ways that can explain the way of a believer to deal with problems like this. Among the instructions of the Al-Qur'an which are very glorious, namely that a servant will not be hit by a disaster unless Allah SWT has written and predetermined the disaster. As Allah Most High said in the Al-Qur'an: "Say: Will not afflict us except what Allah has written for us. He is our protector and only to Allah put trust in those who believe" (Surah At-Taubah [9]: 51).

The verse is also emphasized by the word of Allah in the Qur'an Surah Al-Hadid [57]: 22 which translates: "There is no disaster that falls on earth that befalls yourselves unless Allah Subhanahu wa Ta' ala has written it. Indeed it is easy for Allah Subhanahu wa Ta'ala".

Based on the words of Allah SWT, it is clear that all calamities, disasters and disease outbreaks are a decree and destiny of Allah. These tragedies can be in the form of punishment, trials, or tests to humans. However, every calamity in the form of disasters and plagues cannot be separated from His devotion and irradiate. For this reason, humans should think that behind every calamity, there is a lesson that can be learned to be used as material for self-reflection and introspection (muhasabah) on the signs of Allah's power that he has shown through calamities. It could be that the tragedy was the result of negligence and acts of man's own hands because he was not trustworthy in managing this earth. As Allah says in the Al-Qur'an Surah Ar-Rum [30]: 41: "It has appeared that the damage on land and at sea was caused by the deeds of human hands, so that Allah may feel for them a part of (the result) of their actions, so that they will return (to the right path)."

The verse above explains that humans on earth indirectly mediate the descent of calamities, because the whole world and its contents have been outlined by Allah to carry out their respective duties and functions, which if part of the duties and functions of the world work system and its contents are overused by humans or no longer walking according to His sunatullah, it is clear that there will be disharmony and imbalance in life which can then be a disaster for humans themselves.

In Islam, Rasulullah Saw has conveyed in his hadith to his friends about the prevention of contagious disease outbreaks, including the Coronavirus outbreak. In a number of hadiths, Rasulullah Saw has explained the principle of medical quarantine clearly. He forbade people to enter a country that was stricken with the plague, also forbade people who lived in that country to leave the country. He considers people who violate this provision to be like people who run from war. Running away from war is one of the great sins that must be avoided. And Rasulullah Saw set the reward for martyrdom for those who were patient in facing this prohibition.

Various traditions have been going on for centuries, but the strategies and solutions offered by the Prophet Muhammad to his friends to break the chain of epidemic transmission are of course still very relevant today. The Prophet's solution to break the chain of virus outbreaks in today's world is known as "quarantine" or social distancing which the Indonesian government calls Large-Scale Social Restrictions (Indriya, 2020). Separating the sick from the healthy, and staying away from areas affected by the epidemic or social distancing and maintaining cleanliness and complying with health protocols are religious recommendations.

Corona and Disruption of Education

The Covid-19 pandemic that hit the world, starting at the end of 2019 in Wuhan, China, and spreading to Indonesia in early 2020, has had a significant impact on various aspects of life, including the world of higher education. The ease and speed of transmission of the coronavirus with an increasingly high mortality impact for sufferers have changed face-to-face learning that was initially dominated, paused, and urged to immigrate to internet network-based learning (virtual class).

The Directorate General of Higher Education (Ditjen Dikti), Ministry of Education and Culture, responded to this condition by providing easy learning during the Covid-19 emergency to students in various universities. This is stated in the Circular from the Minister of Education and Culture Number 36962 / MPK.A / HK / 2020 dated March 17, 2020 concerning Online Learning and Work from Home in the context of preventing the spread of Covid-19.

The impact of the Covid-19 pandemic has disrupted the learning process for higher education in Indonesia. The Minister of Education and Culture issued a Circular on March 9, 2020 concerning Online Learning and Working from Home to prevent the spread of Covid-19. All campuses in Indonesia inevitably issue mitigation policies for the impact of the outbreak.

For universities that are accustomed to using technological devices in the lecture process, they certainly do not encounter obstacles. Just look at what has been done by the Universitas Terbuka (UT). The Universitas Terbuka is a pioneer in the practice of distance learning and online learning methods in Indonesia. In the midst of a large number of regular students from various campuses who have not optimally used the online learning system, of course, this is a significant obstacle. It is not only an obstacle for the students but also for the lecturers.

In contrast to UT students and lecturers who have been implementing an online learning system for a long time, they only need to continue online learning generally as usual. As if it was not affected by the conditions of the Covid-19 pandemic. In the implementation of learning, UT provides learning assistance services called tutorials, which are divided into three, namely online tutorials (Tuton), face-to-face tutorials (TTM), and webinar tutorials (Tuweb). The immigration of face-to-face learning patterns into online learning has resulted in various obstacles because not all lecturers and students are ready and able to operate online learning system technology quickly and adequately, including preparing digital lecture materials.

Apart from the unpreparedness or stuttering in the technology sector, it turns out that there is another problem, namely the lack of supporting infrastructure owned by each party. Many lecturers and students cannot fulfill this technological facility, let alone fulfilling this part, even meeting the needs of daily life is still tricky (Akhtarul Islam et al., 2020). And this problem is often felt by our people who are in the middle to lower economic level. For example, the existence of online lectures requires students to have laptops and cellphones, and to be connected to a virtual class learning system, all technology devices must have a network, either a wifi network or cellular data (Setiawan, 2019). Internet networks and cellular data in the online learning process require a cost that is not cheap, this is the next obstacle; expensive data and the difficulty of accessing wifi for free are exacerbating the situation. Of course, students who do not have this technological facility will be constrained by the learning process, especially with the existence of government regulations in the form of PSBB, students who do not have laptops or cellphones will have difficulties and internet cafes in various areas will definitely close due to the PSBB policy. Not only do they find it difficult, maybe because of this factor many students drop out in the middle of the road alias quit college (Fawaz & Samaha, 2020; Naser et al., 2020).

According to Gerald in (Adit, 2020), the corona pandemic (Covid-19) is predicted to continue for a long time on all campuses. According to him, many health experts' predictions, possibly because vaccines generally take a minimum of 4 years to be found. Students must be ready to take part in online learning as demand for developments in the industrial revolution era 4.0. Many experts predict that online learning will continue as early as the end of 2021.

Covid-19 has disrupted higher education in Indonesia. With an outbreak that has yet to predict when it will end, although many experts say it will end as early as 2021, this still carries a big question mark. In fact, the government in July 2020 has been preparing to implement a new habit (new normal) which has received a lot of response from the public because it is associated with herd immunity - which means that those with high immunity will survive and those with low immunity will

lose. However, the Indonesian people cannot stand by and stand idle by and maintain health and adhering to health protocols, they must also continue life and education.

University Strategy in Pandemic Times

The Covid-19 pandemic has become a global humanitarian problem and an academic tragedy that was not previously predicted. The emergence of this outbreak immediately stopped the euphoria of the discourse of the 4.0 industrial revolution in Higher Education in many educational seminars and all academicians seemed dumbfounded and experienced panic at all the inadequate system of higher education facilities and infrastructure in the midst of the Covid-19 pandemic. The unpreparedness of the higher education system to face the current pandemic seems to be an uncertainty in the management of higher education, which offers an interesting view to analyze sociologically including the following:

Academic tragedy, Sociologically, the academic tragedy in reflective writing can be demonstrated by students' death in South Sulawesi just to find internet networks to fulfill their online college obligations. The tragedy of a student at the PGSD Study Program in Makassar who had a motorized accident while searching for an internet network for online lectures indicated the college's lack of readiness in responding to the pandemic that hit the world today, especially the provision of information and telecommunication network facilities and infrastructure. In addition, the same tragedy was also experienced by a student with the initials RS. This Hasanudin Makassar University student died after falling from a mosque tower after trying to find an internet signal to do online college assignments (Karim, 2020).

Lecturer and student culture, Culture is an interesting aspect of observation during a pandemic. Lecturers are encouraged to carry out lectures online (virtual class) following the applicable curriculum targets using various digital applications such as google classrooms, zoom, e-learning, and whatsaap groups and other applications due to limited face-to-face constraints due to the impact of the pandemic outbreak. However, lectures this online does not consider the readiness of lecturers and students, especially the problem of cost risks for students in each region. One of the problems that seem to be general lies in the inadequate telecommunications network to support online learning in the form of distance learning that is conducted. Many lecturers then switch to the assignment method as a substitute for students constrained by telecommunications networks in online learning.

The problem of online lectures is not limited to the problem of the telecommunications network system. Many proposals have emerged that the study completion system in the form of written works be abolished for various unfounded reasons from students, of course, the main factor is the lack of awareness of literacy culture among students so that with the limitations and looseness of online lectures for those in remote areas with minimal telecommunication networks it becomes reasons for laziness in doing scientific papers (thesis), so that they use this to petition for thesis removal and free tuition fees amid a pandemic. This phenomenon shows the mentality of students who do not have good problem-solving maturity. In fact, if analyzed, this final project can be completed by turning to library research in each field of the department which can enrich the treasures of theoretical research (Karim, 2020).

Virtual academic room, Since the outbreak of the Covid-19 pandemic in January 2020 in Indonesia, all lecture activities that were originally face-to-face have turned into online lectures. Of course, with this pandemic, all campuses are "forced" to be able to conduct lectures online. However, for various reasons of unpreparedness, that is the reality, all campuses are required to be ready to conduct online lectures. Since the course of lectures last semester, various obstacles began to emerge, starting with student complaints about the difficulty of getting a free internet network due to the inability of students to buy cellular data as well as other factors such as economy and poverty which of course not all students have an Android cellphone.

The next problem during the pandemic, namely the final assessment (UAS) and final project (thesis) of students, usually done face-to-face, has switched to online, so this has become a problem for lecturers in measuring the level of student success. Assessment for students may experience measurement errors, not, as usual, even the validity of the exam results is still in doubt, because of the difficulty of monitoring the exam and so easy for students to find answers on the internet. Moreover, of course, university graduates during a pandemic will experience new problems in the world of work. In European countries, the assessment is carried out on an educational credential basis, namely by classifying the degree and the average value to select applicants from university alumni in achieving absorption in the world of work (Piopiunik et al., 2020). As if they are new graduates of the University, they will inevitably receive lower wages, affecting career competition (Bobonis & Morrow, 2014).

Massification of digital literacy, The pandemic has brought big changes for the Indonesian nation, despite the bad effects. Of course, every disaster has wisdom behind it. The lesson is that all Indonesian people are "forced" to be literate in digital-based information and communication technology systems (Graves et al., 2020; Lase, 2019). The rise of various activities online (virtual) has led to massive digital literacy. Virtual digital literacy seems to have found its moment without having to be cultivated, by itself, the Indonesian people will be more accustomed to cultivating digital literacy due to the impact caused by the pandemic. Therefore, the existence of digital literacy can become a "shield" for various crimes on social

media, so that efforts to form millennial literacy communities on social media are concrete steps in warding off various criminal acts on social media.

METHOD

The method used is a qualitative descriptive research method with a phenomenological approach and virtual ethnography (Leavy, 2017; Norazmi Bin Nordin et al., 2019; Supeni et al., 2019). Virtual ethnography refers to the ethnographic research approach carried out in an online setting, which in this study examines the internet and social media (digital applications) (Boellstorff et al., 2012). This research describes various education problems in Indonesia regarding internet-based (virtual) learning with a distance learning model caused by the Covid-19 Pandemic. This research was conducted at several public and Islamic universities in East and North Kalimantan, namely the Samarinda State Islamic Institute, Borneo Tarakan University, and Mulawarman University. This research was conducted online in terms of obtaining data via telecommunications networks in the form of zoom meting, whatsaap, and telephone. This study's subjects were lecturers and students at the Samarinda State Islamic Institute, Borneo Tarakan University, and Mulawarman University.

The instrument used was observation by looking at various phenomena that occurred regarding the higher education system during the pandemic through online portals such as youtube, webinars, and zoom metting conducted by various universities in East and North Kalimantan, then conducting interviews with lecturers and students in The tertiary institutions that were the object of study in this study also used a questionnaire in the form of an interview guide to explore various information about the distance learning education system used by universities in East and North Kalimantan during the pandemic through zoom metting, whatsaap, and telephone media. Also, it also refers to literature studies in the form of books, journals and other relevant references. The data analysis used Jujun Sumantri's model with two methods of analysis, namely critical analysis and content analysis.

RESULT AND DISCUSSION

Indonesia's hope of having world-class universities and realizing the demographic bonus and getting out of a low-income country's trap occurs when human relations in society are so dynamic that the world has experienced many changes. This change is driven by innovations in science and technology that exist in universities. Previously, the learning method was only centered between lecturers and students through face-to-face and limited to certain geographies. However, now the development of learning methods has implemented the concept of Massive Open Online Courses (MOOCs) in distance learning, which has a wide reach beyond the physical boundaries of the campus and the state (Oey et al., 2017).

This new life order known as "new normal" has created a new habit, especially in the world of education. Higher education is currently using a digital technology-based distance learning system because of the impact of Covid-19. All tertiary institutions have used a distance learning based learning system using various virtual applications that are in line with the future educational mission, namely creating a cyber university. Cyber University or Cyber Campus is a university-based on information technology. These efforts are applied on all fronts, starting from the learning system, curriculum, academic services, facilities and other infrastructure, all of which are developed based on technology.

Virtual online learning carried out by IAIN Samarinda amid a pandemic outbreak is certainly not much different from what other universities have done. To keep lectures and various campus activities going, IAIN Samarinda has made online-based learning efforts by using various virtual applications connected to the internet network. IAIN Samarinda uses several applications in conducting lectures and other academic activities, namely using IAIN Samarinda E-learning. IAIN Samarinda e-learning is designed for learning media which focuses more on blended learning patterns (Setiawan, 2019). However, due to the impact of the corona pandemic (Covid-19) outbreak, the IAIN Samarinda E-learning application is now being used to conduct virtual distance online learning without face-to-face learning. In addition, other online applications that are also used by IAIN Samarinda to support online-based learning are Google Classroom, Zoom, GoogleMeet, Moodle, Edmodo, Whatsaap, and Youtube applications. These various digital applications are of course used in various online lecture activities. Suppose you carry out the learning process online. In that case, the majority of IAIN Samarinda lecturers use the E-learning application. However, there are also those who use other applications such as Google Classroom, Moodle, and others to give assignments and textual discussions. In contrast, learning requires visualization such as presentation of course assignments, Thesis exams, graduation seminars, and graduations, use the Zoom Metting and Youtube applications.

Meanwhile, the online-based learning application used by the University of Borneo Tarakan in supporting learning activities and other activities is by using E-learning BEL UBT, Zoom, Google Classroom, and other learning applications that are relevant and not burdensome for lecturers and students. The University of Borneo Tarakan's BEL application was implemented in early 2019 long before the Coronavirus (Covid-19) pandemic hit Indonesia. However, it is still patchy in its

application to improve application development so that it can be used by all lecturers optimally. In addition to using the BEL application, lecturers also use supporting applications such as Google Classroom, Zoom, Telegram, Wahtsaap, and various other virtual applications to support the lecture process even though it is Work from Home (WFH). Even various activities such as thesis exams, seminars, judiciary, Fieldwork Practices, Real Work Lectures, and Graduations are also carried out online, although basically Fieldwork Practices and Real Work Lectures are carried out in the field but more emphasis is placed on the Covid-19 Task Force activities in the community. where they live on condition that they adhere to health protocols.

The online learning process (virtual) used by Mulawarman University is also not much different from other universities' online learning. Mulawarman University to keep realizing learning during the Covid-19 pandemic is by designing a learning system that was originally face-to-face in the classroom then switched to online-based learning or online classes using the e-learning application owned by Mulawarman University. In addition to using e-learning applications, Mulawarman University also uses various supporting applications such as Google Classroom, Zoom, Whatsaap, and other digital class applications for the implementation of online-based education that is effective, efficient and fun. Mulawarwan University long before the Covid-19 pandemic had implemented e-learning-based learning because e-learning-based learning had been promoted in 2018 by the Minister of Research, Technology and Higher Education (Menristekdikti) who was led by Muhammad Nasir as a form responsive to the times that are now completely digital. To respond to the times, higher education seeks to adapt to the times, especially in designing the education system in tertiary institutions based on information technology to meet the world education competition towards world-class universities and cyber universities.

The tertiary institutions in East and North Kalimantan have implemented online-based academic activities by conducting online-based learning using various digital learning applications. Academic activities, both lectures, services, and guidance as well as seminars and graduations, are carried out online so that all campus activities can continue to run even amid the Covid-19 pandemic, of course it is not easy, it requires an online learning system management that must be managed properly and SMART (Specific, Measurable, Achievable, Relevant, and Timebont). Especially with the various limitations that each campus has, sometimes the campus educational process does not run optimally, and it seems as if it is only a "duty abortion" tool. Changing the concept of learning from conventional to e-learning should involve academic development strategies (Lockwood & Gooley, 2001). Without this linkage and development, innovation will fail. It will also be very difficult to change the lecturers' habits and beliefs from being tied to conventional learning and then applying the concept of e-learning.

In the concept of e-learning, many new elements must be adopted by lecturers, namely how to prepare lecture/tutorial materials in digital form to be presented in virtual classes (online), how to use learning technology media via computers, laptops, or cellphones, how to communicate in writing which is very different from communicating face-to-face, and of course how to evaluate student learning activities in e-learning (Maudiarti, 2018). Not only lecturers, students also have to learn a lot about how to operate various digital applications using computers, laptops or cellphones. Given, the current millennial generation is so close to gedget, it should be easier for him to learn how the digital-based learning application operating system is urrently many applications can be used as learning applications in virtual classrooms, such as the google classroom which functions as a written discussion forum, while the zoom application can be used as a visual virtual learning medium to connect large numbers of students into virtual classes. , so that lecturers can easily display their learning power points and can be listened to by all students and discussions between lecturers and students.

According to researchers, this is only a matter of habituation and enthusiasm for learning. The problem of reference or learning resources, now there are many digital books (e-books) and journals that can be downloaded by students as reading material. All-access is wide open and so easy, but the strange thing is that the culture of laziness and low interest in student learning today has made online lectures not as expected. If only these online lectures were carried out seriously and students reduced their complaints and were wise in dealing with various problems today, especially in implementing online learning, then becoming a cyber university would soon be realized. Regarding cellular networks and data, now there is a solution from the Ministry of Culture and the respective universities with free subsidies related to telecommunication networks; although it has not been implemented optimally, improvements and development efforts have been made.

E-learning-based learning has a positive side and a negative side, but if we only view change (technological innovation) as something negative, then progress will never happen. Like it or not, whether we like it or not, the times keep on rolling, and various new breakthroughs and creative innovations are always being created. Therefore, lecturers and students must be open-minded to accept this situation by enriching themselves with science and technology as well as digital information. Changes in the times continue, even faster, times will not wait for us, but we must keep up with the times by creating inventions that can benefit and make it easier for humans. Of course to make changes is not easy, it takes hard work, focus, and a "creative hand". In the past, learning was carried out conventionally (face to face), now with a touch of "creative ideas and hands", a virtual class is created (digital class) such as the Teacher's Room. Maybe later there will be

various applications such as the Lecturer Room, and other learning applications that will certainly make it easier for lecturers and students to do interactive active learning.

CONCLUSION

Online-based learning (e-learning) was carried out by universities during the pandemic. The use of e-learning is supported by various virtual applications such as google classroom, google meet, zoom, whatsapp, and various online applications to support the creation of effective, efficient and interactive learning. Although, the application of online-based lectures has weaknesses here and there due to the absence of adequate infrastructure, especially issues of curriculum, human resources, and networks. However, the Ministry of Education and Culture and universities in East and North Kalimantan have formulated and implemented various policies and strategies that can support the implementation of learning in tertiary institutions during the pandemic by compiling a learning curriculum during the pandemic, preparing human resources with various tutorial training and webinars, making digital-based learning materials, providing credit subsidies to lecturers and students, as well as collaborating with network companies such as Google, Telkomsel, Indosat, and so on, as well as conducting learning evaluations in stages each semester. So that various academic activities can run well in accordance with the expectations of the academic community.

REFERENCES

- [1] Adit, A. (2020). Upaya Pencegahan Virus Corona, Akademisi UNS Kembangkan Jahe Merah.
- [2] Akhtarul Islam, M., Barna, S. D., Raihan, H., Nafiul Alam Khan, M., & Tanvir Hossain, M. (2020). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. PLoS ONE, 15(8 August). https://doi.org/10.1371/journal.pone.0238162
- [3] Ariffin, K., Halim, N. A., & Darus, N. A. (2021). Discovering Students' Strategies in Learning English Online. Asian Journal of University Education, 17(1), 261–268. https://doi.org/10.24191/ajue.v17i1.12695
- [4] Ash-Shufiy, A. (2007). Tanda-Tanda Hari Kiamat, Tanda-Tanda Kecil dan Menengah. Tiga Serangkai.
- [5] Bobonis, G. J., & Morrow, P. M. (2014). Labor coercion and the accumulation of human capital. Journal of Development Economics, 108, 32–53. https://doi.org/10.1016/j.jdeveco.2014.01.004
- [6] Boellstorff, T., Nardi, B., Pearce, C., & Taylor, T. L. (2012). Ethnography and Virtual Worlds: A Handbook of Method.
- [7] Dittmann, J., Stertz, S., Grimm, D., Steel, J., García-Sastre, A., Haller, O., & Kochs, G. (2008). Influenza A Virus Strains Differ in Sensitivity to the Antiviral Action of Mx-GTPase. Journal of Virology, 82(7), 3624–3631. https://doi.org/10.1128/jvi.01753-07
- [8] Fawaz, M., & Samaha, A. (2020). E-learning: Depression, anxiety, and stress symptomatology among Lebanese university students during COVID-19 quarantine. Nursing Forum. https://doi.org/10.1111/nuf.12521
- [9] Graves, M., Sales, G. C., Lawrenz, F., Robelia, B., & Richardson, J. W. (2020). Effects of Technology-Based Teacher Training and Teacher-Led Classroom Implementation on Learning Reading Comprehension Strategies. Contemporary Educational Technology, 1(2). https://doi.org/10.30935/cedtech/5972
- [10] Indrawati, B. (2020). Tantangan dan Peluang Pendidikan Tinggi Dalam Masa dan Pasca Pandemi Covid-19. Jurnal Kajian Ilmiah, 1(1), 39–48. https://doi.org/10.31599/jki.v1i1.261
- [11] Indriya, I. (2020). Konsep Tafakkur Dalam Alquran Dalam Menyikapi Coronavirus Covid-19. SALAM: Jurnal Sosial Dan Budaya Syar-i, 7(3).
- [12] Karim, B. A. (2020). Pendidikan Perguruan Tinggi Era 4.0 Dalam Pandemi Covid-19 (Refleksi Sosiologis). Education and Learning Journal, 1(2), 102. https://doi.org/10.33096/eljour.v1i2.54
- [13] Kim, T.-J. (2019). Spanish Flu, SARS, MERS-CoV by CO2 Emission and Maximal Sunspot Number. Journal of Biomedical Science and Engineering, 12(01), 53–75. https://doi.org/10.4236/jbise.2019.121005
- [14] Kumar, D. (2020). Corona Virus: A Review of COVID-19. Eurasian Journal of Medicine and Oncology. https://doi.org/10.14744/ejmo.2020.51418
- [15] Lase, D. (2019). Pendidikan di Era Revolusi Industri 4.0. SUNDERMANN: Jurnal Ilmiah Teologi, Pendidikan, Sains, Humaniora Dan Kebudayaan, 1(1), 28–43. https://doi.org/10.36588/sundermann.v1i1.18
- [16] Leavy, P. (2017). Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community- Based Participatory Research Approaches.
- [17] Lockwood, F., & Gooley, A. (2001). Innovation in Open & Distance Learning: Successful Development of Online and Web-Based Learning. ERIC.
- [18] Maliki, M. (2020). Covid-19, Agama, dan Sains. MAARIF, 15(1), 60-92. https://doi.org/10.47651/mrf.v15i1.77
- [19] Maudiarti, S. (2018). Penerapan E-Learning di Perguruan Tinggi. PERSPEKTIF Ilmu Pendidikan, 32(1). https://doi.org/10.21009/PIP.321.7

- [20] Naser, A. Y., Dahmash, E. Z., Al-Rousan, R., Alwafi, H., Alrawashdeh, H. M., Ghoul, I., Abidine, A., Bokhary, M. A., Al-Hadithi, H. T., Ali, D., Abuthawabeh, R., Abdelwahab, G. M., Alhartani, Y. J., Al Muhaisen, H., Dagash, A., & Alyami, H. S. (2020). Mental health status of the general population, healthcare professionals, and university students during 2019 coronavirus disease outbreak in Jordan: A cross-sectional study. Brain and Behavior, 10(8). https://doi.org/10.1002/brb3.1730
- [21] Norazmi Bin Nordin, M., Zaid bin Mustafa, M., & Rasid bin Abdul Razzaq, A. (2019). The Practice of Headmasters' Leadership and Its Effect on Job Satisfaction of Special Education Integration Program (PPKI) Teachers in Johor, Malaysia. Universal Journal of Educational Research, 7(9), 2008–2014. https://doi.org/10.13189/ujer.2019.070923
- [22] Oey, M., Rahayu, S. I., Amin, M., Effendi, S., Darma, Y., Dartanto, T., & Aruan, C. D. (2017). Era disrupsi peluang dan tantangan pendidikan tinggi Indonesia. Universitas Indonesia.
- [23] Piopiunik, M., Schwerdt, G., Simon, L., & Woessmann, L. (2020). Skills, signals, and employability: An experimental investigation. European Economic Review, 123, 103374. https://doi.org/10.1016/j.euroecorev.2020.103374
- [24] Purnamasari, D. M., Nugraheny, D. E., & Mashabi, S. (2020). UPDATE: Bertambah 1.655, Kini Ada 89.869 Kasus Covid-19 di Indonesia. Kompas.
- [25] Rahiem, M. D. H. (2021). Indonesian University Students' Likes and Dislikes about Emergency Remote Learning during the COVID-19 Pandemic. Asian Journal of University Education, 17(1), 1–18. https://doi.org/10.24191/ajue.v17i1.11525
- [26] Samat, M. F., Awang, N. A., Hussin, S. N. A., & Nawi, F. A. M. (2020). Online Distance Learning Amidst Covid-19 Pandemic Among University Students: A Practicality of Partial Least Squares Structural Equation Modelling Approach. Asian Journal of University Education, 16(3), 220–233. https://doi.org/10.24191/ajue.v16i3.9787
- [27] Setiawan, A. (2019). Conceptual of Blended Learning as Islamic Education Study Program Learning Reform Action In Digital Era 4.0. Syamil, 7(2).
- [28] Suni Astini, N. K. (2020). Tantangan dan Peluang Pemanfaatan Teknologi Informasi Dalam Pembelajaran Online Masa Covid-19. Cetta: Jurnal Ilmu Pendidikan, 3(2), 241–255. https://doi.org/10.37329/cetta.v3i2.452
- [29] Supeni, S., Hakim, L., & Jumintono. (2019). Strengthening Character Education of Early Childhood through Javanese Traditional Game Dakon. International Journal of Recent Technology and Engineering, 7(6), 243–249.
- [30] Supriatna, E. (2020). Virus Corona Dampak dari Makanan yang tidak Halal Faiqatul Husna. SALAM; Jurnal Sosial & Budaya Syar-i , 7(6). https://doi.org/10.15408/sjsbs.v7i6.15247
- [31] Thayyarah, N. (2013). Buku Pintar Sains dalam Al-Qur'an. Serambi Ilmu Semesta.
- [32] Tumpey, T. M., Basler, C. F., Aguilar, P. V., Zeng, H., Solórzano, A., Swayne, D. E., Cox, N. J., Katz, J. M., Taubenger, J. K., Pales, P., & García-Sastre, A. (2005). Characterization of the reconstructed 1918 Spanish influenza pandemic virus. Science, 310(5745), 77–80. https://doi.org/10.1126/science.1119392

647 http://www.italienisch.nl