Learning reflections in the covid-19 pandemic period (study at the Muhammadiyah educational institutions in Surabaya)

Lina Listiana

Universitas Muhammadiyah Surabaya, Jl. Sutorejo 59 Surabaya, Indonesia

linahamdani22@yahoo.com

Abstract. Coronavirus outbreak (Covid-19) has attacked the entire world, transmission is so rapidly to death. Futher, the impact of covid-19 pandemic is not only attack immune system, but also social life. Such as economy, culture, politic and education.. This study aims to analyze and reflect online learning activities during the Covid-19 pandemic, addressing obstacles and assessment carried out to ensure the quality of learning. The method used is a qualitative method with a descriptive analytic approach. The study in Muhammadiyah Educational Institutions is the Muhammadiyah University of Surabaya and Schools at the senior secondary level namely Muhammadiyah High Schools in the city of Surabaya amount of 8 schools.The sample respondents were lecturers, vice-principals and teachers, with 32 respondents lecturers, and 24 respondents consists of 8 vice-principals and 16 teachers. The results and discussion showed the effectiveness of the implementation of online learning with significant achievements. A reflection for educators to is to enhance their competencies in mastering digital technology, designing modern online learning with various innovations and interesting learning methods to develop students' cognitive, affective and psychomotor domains in this pandemic period. For students they have to enhance the ability of using technology so that they become better prepared to face the challenges of learning in the industrial era 4.0. For Educational Institutions it is necessary to design a curriculum to be more adaptive to extraordinary situation.The conclusion is that the implementation of online learning during the Covid-19 pandemic at Muhammadiyah University of Surabaya and High Schools in the city of Surabaya run smoothly and effectively using Moodle owned by each educationalinstitutions which was combined with several applications and platforms.

1. Introduction

Entering 2020, the world has been shocked by a deadly virus outbreak, a new type of coronavirus (SARS-CoV-2), a disease called Coronavirus Disease 2019 (Covid-19). The origin of this virus from the city of Wuhan, China, was discovered at the end of December 2019 (WHO data, March 1, 2020) [1]. Coronavirus is a single-stranded envelope RNA virus, including the Coronaviridae family. This type of virus in Indonesia has been shown to be able to infect humans, causing respiratory syndromes with symptoms of fever, cough, sore throat, runny nose and breathing difficulties and diarrhea [2],[3] . Coronavirus mainly causes infections in birds and mammals. However, the infection is also seen in humans [4].

WHO World Health Organization in the Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (Covid-19) claims that the spread of the Covid-19 virus is through droplets or vomiting (fomites), when coughing or sneezing. Transmission occurs by unprotected contact between an infected person and a person without a disease pathogen. The spread that occurs in some Covid-19 patients is through the toilet seat, bathroom door handle, and sink. According to Peter Piot, founder of the Ebola virus and Director of the London School of Hygiene and Tropical Medicine, says that the Covid-19 can be transmitted when we talk to someone.

Covid-19 hit various parts of the world, including Indonesia. In the middle of March 2020, WHO established Covid -19 as a pandemic that affected many sectors in the world. In Indonesia, which began with the infection of two people after direct contact with foreign persons from Japan who live in Malaysia.[5], gives an update on the spread of the Corona virus (Covid-19) in Indonesia on

Saturday (5/23/2020) at 12.00 WIB, there were 21,745 confirmed positive cases, with 5,249 Covid-19 patients (24.1 percent) cured, while 1,351 people died (6.2 percent). Meanwhile, worldwide data mentioned that there are a total of 5,326,230 positive cases of the corona virus.

Covid-19 pandemic greatly impacted life in society on various aspects including aspects of Education. Covid-19 pandemic impact on the education system in Indonesia, transformation and adaptation of learning takes place. Face to face learning (offline) becomes online learning with blended learning models. Research [6]online learning as a result of the covid-19 pandemic proved to be effective in the work from home. According [7]blended learning can minimize the impact covid-19, through blended learning students have access to online material and can interacted with other students and teachers. Others studies reveal that the impact covid-19 encourages teachers and students to skilfully use learning media dan technology, design learning strategies nd models. According to [8] , most students support and anthusiasm to prepare learning technology. This is in line eith[9], during the covid-19 period all lecturers conducted online learning and arranged various tasks through social media application such as WhatsApp.

Related to this,[10] issued an Education policy in Covid -19 emergency. Education policy namely Circular Letter number 4 of 2020 concerning Implementation of Education Policy during the Emergency Spread of Covid-19. These policies are 1) replacing the learning process by using online learning. The learning system uses a personal computer (PC) or laptop connected to the internet network. Educators, lecturers or teachers can carry out joint learning activity at the same time by using Moodle E-learning application, Zoom Cloud Meeting application, Microsoft Teams, Telegram, Google classroom and social network namely WhatsApp, 2) Social distancing and physical distancing policies to reduce interaction and prevent Covid-19, 3) transmission from applying Large Scale Social Restrictions (PSBB) or lockdown to all regions in Indonesia.

Covid-19 as a global pandemic has significant impacts for various aspects of social life. From various aspects affected, economic aspects, social aspects, political aspects, and law and Education. The impact on the economic order has a big influence on the national economy. In the social aspect, there are limitations in the space for socializing the implementation of social and physical distancing. Political aspects were also affected, many important political agendas in 2020 were finally postponed such as the holding of simultaneous local elections in 270 regions. Likewise, the legal aspect is a separate issue relating to the balance between workers' rights and work obligations. Furthermore, the impact on aspects of education is an important part that must be discussed.

The impact of the Covid-19 pandemic on the aspect of education made all educational implementers and their arrangements adapt to this situation. Not only education at the level of elementary / Madrasah Ibtidaiyah, Junior High Schools / Madrasah Tsanawiyah, and High Schools / Madrasah Aliyah, but also Universities. All levels of education both those under the Indonesian Ministry of Education and Culture and those under the Indonesian Ministry of Religion were affected, where students had to "learn from home" because face-to-face learning activities were eliminated to prevent Covid-19 transmission.

Various efforts and adaptations were made to keep running the learning process from home. There is a transformation of the learning system that is from face to face learning (offline) which is done as usual to become a distance learning system (online). Learning from offline to online is not easy for those who have never done it; it requires readiness in everything. Likewise, online learning facilities are still not very supportive. Students need adaptation in the use of online media. In addition, network access and additional costs must be spent by students. Especially the need readiness competency for lecturer and teacher in designing online-based learning.

Research Problems

Implementation of learning from home can not necessarily be carried out effectively, so that problems arise related to the implementation of online learning with its effectiveness and achievement of learning objectives that have been formulated optimally. Not to mention the obstacles experienced while doing the learning. In order to formulate a more detailed problem then it is described in the form of the following research questions; 1) How is the implementation of online learning at the level of Muhammadiyah High Schools and Muhammadiyah Universities in Surabaya ?; 2) What are the

obstacles faced by schools and Universities ?; and 3) What are the results of the evaluation of learning to ensure the quality of learning?

Research Objectives and Urgencies
In line with the research problems, the purpose and urgency of this research is to obtain information about the extent of the implementation of online learning from home, the constraints in implementing learning changes in this pandemic period as well as information about the results of learning evaluations in order to guarantee the quality of learning. This study is important for several reasons. First, learning information as a impact of the Covid-19 pandemic needs to be reviewed and analyzed to ensure learning takes place so that learning outcomes can be achieved. Second, as feedback for schools or educational institutions to further enhancement on the competencies of educators related to the use of learning technology and online learning innovation. Third, the results of the evaluation are important to still guarantee the quality of the learning process.

2. Method

This study uses a qualitative method with a descriptive analytic approach. The study was conducted at Muhammadiyah Educational Institution is Muhammadiyah College and Muhammadiyah Senior high schools in the city of Surabaya. The subjects in this study are 1) all Muhammadiyah senior high schools in Surabaya which consist of 8 schools in total (7 Muhammadiyah High Schools and 1 Muhammadiyah Vocational School). As a sample of respondens were vice-principals in academics and two teachers in each school. The total number of respondents is 24 respondents, 2) Muhammadiyah University in Surabaya which consists of 9 faculties with 32 study programs. The sample of respondents is a lecturer with the number of respondents one lecturer per study programs. The total number of respondents was 32 lecturers.

According with the objectives of the study, as indicators to answer research objectives are 1) the implementation of online learning/blended learning, 2) the presence of students, 3) the availability of facilities,media and learning platforms, (3) the availability of funds for internet access, and (4) achievement of cognitive learning goals, affective, psychomotor, and completeness of the material provided.

Data collection techniques from primary and secondary sources. Primary data sources were obtained by interviewing online via WhatsApp and data containing questions using the Google form application. The questions asked are about the implementation of online learning, the platform used, the constraints faced, and the evaluation of learning conducted. Secondary data sources obtained from the results of documentation, namely data related to variables such as notes, websites, books about online learning during the Covid-19 pandemic. Data about the subsequent results were analyzed with descriptive analysis techniques.

3. Result and Discussion

Online learning activities at Surabaya Muhammadiyah University were still carried out during the Covid-19 pandemic. In accordance with the policy of the Ministry of Education and Culture, Circular No. 4 of 2020 concerning the Implementation of Education Policy in Emergency During the Distribution of Covid-19. These policies are 1) Changing the learning process by using online learning, 2) Social distancing and physical distancing are applied to reduce interaction and prevent covid-19 transmission, and 3) PSBB (lockdown) is applied in all regions in Indonesia . Based on [11] concerning Prevention of Corona Virus Disease (Covid-19) at Universities in the LLDIKTI Region VII Environment, among others, the temporary stopping of academic activities in face-to-face learning mode and replacing it with learning from home or online learning mode for students. Followed [12]on theincreasing awareness and prevention of Covid-19 Infection Spread in UMSurabaya, that students should participate in all academic activities online from their homes respectively.

Based on these policies, UMSurabaya prepares all online learning application tools. Online learning at UMSurabaya had already been carried out in 2018 using Moodle. Likewise, the

strengthening of human resources continues to be improved, especially the competence of lecturers in the use of learning technology implemented through online learning trainings with blended learning models and training in innovation and online learning designs. Since 2018, the implementation of online learning especially blended learning implementation has not been maximized in every faculty. Each lecturer only uses a blended learning model of 2-3 meetings of the total number of 14 meetingsper semester for each subject taught by the lecturer.

The results of the study revealed that the implementation of online learning during the Covid-19 pandemic at UMSurabaya simultaneously all faculties (9 Faculties) at UMSurabaya carried out online learning from their respective homes starting from March 16, 2020 in the even semester 2019/2020. All lecturers carried out online learning, using Moodle applications especially the blended learning model for all meetings for one semester in accordance with the specified schedule. In general, online learning at UMSurabaya takes place smoothly by combining several applications such as Zoom cloud meeting, Microsoft teams (MST), Email, Webbex, Google Meet, Google Classroom, Edmodo, Telegram, and Social media namely WhatsApp. The results showed that more and more applications used by lecturers were E-learning, combined with WhatsApp gorup. Some of the platforms used are quite effective during the current social distancing.

Online learning that has been implemented has several obstacles encountered. Based on the data obtained 1) the most common obstacle when online learning takes place is an internet package that is limited to students. Most of the lecturers (82%)revealed that some students could not take part in the learning activities according to the specified schedule because they ran out of internet packages. 2) 50% lecturers stated that the presence of students was less when learning online, this was because the package was limited while all variations of the models and platforms used required a large internet package. 3) 40% lecturers stated that some students are not accustomed to online learning, a large number of lecturers admit that students are not familiar with online learning using a variety of models and platforms. 4) 70% lecturers find it difficult to measure learning achievements in the attitude and psychomotor abilities, especially for some practical material.

According to the results of the study, an evaluation of online learning at UMSurabaya was carried out using E-learning applications and CBT specifically for the Faculty of medicine and the Faculty of Health Sciences. Evaluation of learning outcomes that have been carried out in the form of quizzes and midterm test (UTS). Implementation of the final test (UAS) will be held on June 22, 2020. Evaluation of learning outcomes during the Covid-19 pandemic period focused more on cognitive aspects such as assignments, portfolio, test results and so on. While the development and evaluation of learning aspects of attitude and psychomotor is less than the maximum. In the attitude aspect, some lecturers motivate students to be active during online learning by informing that students who ask and answer questions were recorded and valued as the activities. To develop an understanding of psychomotor aspects, some lecturers have advised how to evaluate psychomotor aspects by checking understanding of work procedures, providing problems or case studies related to practicum material, as well as using a virtual laboratory.

Implementation of Online Learning from Home
Online distance learning activities simultaneously carried out at Muhammadiyah schools in East Java, Online learning from home started from March 16, 2020, in even semester 2019/2020.All teachers are required to carry out online learning especially the blended learning model in accordance with a predetermined schedule. There is one school, Muhammadiyah 10 High School which has used online learningsince 2018/2019.This school is a school based on interests and talents so that online learning is the main academic supporter. All schools stated that the implementation of online learning from home using the suggested applications from the Department of Education namely Teacher's Room, Learning House and TVRI. In addition, Muhammadiyah Organization also suggested applications such as EDUMU and TVMU. Data obtained that all schools use the EDUMU application, TVMU, Teacher's Room and TVRI, and 3 other schools also use learning houses, Quipper, and Youtube, while other applications are used such as Google Classroom, Google Meet, Zoom Cloud Meeting, Email, Telegram, Quiziz, and social media like Instagram, WhatsApp. In addition, SMAM 10 also uses E-learning (E-learning.smamx) and online radio and SMAM 2 has its ownmoodle application at

school for learning tools used by students including laptops, cellphones, computers, tablets, textbooks, LKS books (student worksheets), companion books (textbooks) Overall the implementation of online learning runs smoothly.

Obstacles to Implementation of Online Learning

Based on the information from 8 schools (SMAM/SMK) in the city of Surabaya, general obstacles in implementing online learning from home such as 1) requires a lot of internet quotaand the limited ability of parents to buy an internet package, 2) limited facilities and facilities for online learning from home, especially *BidikMisi* scholarship students, 3) not all students can operate online applications, because some applications use data packages, 4) the limited ability of parents to assist students in learning and the limited time of parents in assisting students to study, 4) misunderstanding of independent learning, and 5) the achievement of learning objectives and KKM are still not optimal (4 schools statedthat achievement of KKM are still low; and only4 schools which are on their target).

Evaluation of online learning in the Pendemic Covid-19 period

Online learning from home has been running for more than three months since March 16, 2020, while face-to-face learning in even semester 2019/2020 which has started since January 2020. The results of data from 8 schools stated that the evaluation of online learning outcomes during the Covid-19 pandemic has been given in the form of giving daily tests, assignments, final semester assessment (PAS) and final of year assessment (PAT). While the Midterm Assessment (PTS) was carried out before the Covid-19 pandemic. Evaluation of online learning outcomes using self-owned applications such as SMAM 2 using cbt.smamda.net, SMAM 10 with E-learning, SMAM X, SMAM 1 with Moodle and Google Classroom, SMAM 3 using Google classroom, SMAM 7 using their own application and SMAM 4 with the Quizziz, Quipper, and Google form applications.

The prolonged impact of the Covid-19 pandemic has resulted in learning changes from face to face to distance learning (online). This forces educators and students to adapt to online learning. Teachers are required to be able to use various online learning applications with innovative learning designs in order to avoid the boredom. Online learning using the blended learning model is an alternative learning that is widely used. According [9], a blended learning system is learning that combines synchronous and asynchronous learning strategies in order to create a learning experience to achieve optimal learning outcomes. There are three methods that can be used during this pandemic is virtual synchronous, asynchronous independent and asynchronous collaboration. [14] state that the advantages of blended learning system for students can share experiences, knowledge and problems with the use of cloud-based technology. Through blended learning social and collaborative learning can also be actualized effectively.

The implementation of online learning at Muhammdiyah University Surabaya runs smoothly because the facilities have been ready since 2018. Officially, Moodlewith URL http://genap2019.um-surabaya.ac.id/has been used by all lecturers and students combined with several Zoom applications, MST, Google Meeting, Google Classroom, Telegram, as well as WhatsApp group. The use of these applications play a role in organizing online learning to achieve predetermined learning goals. WhatsApp as social media is more widely used by lecturers in assisting E-learning applications. According to [15], the use of WhatsApp in the classroom has increased the motivation of higher education students. WhatsApp helps students to gain knowledge, discuss and learn, and interact easily than conventional learning[16]. WhatsApp positively supports learning outcomes among other social networks [17]. The value of emotional involvement was found to be higher in the WhatsApp instant messaging platform [18]. There is a positive impact of using WhatsApp on behaviors that influence the learning process, such as sharing knowledge, preparation for learning, attention, and participation in class [19].

The existence of technology is currently very instrumental in supporting learning, so educators can convey knowledge and make explanations of material more interesting and not monotonous. Educators must be able to innovate themselves by designing modern learning using interesting learning methods, by not only giving assignments so that students feel burdened by tasks that accumulate. In line [20] in online learning teachers must be able to communicate well with students, not just give assignments. This is what makes students learn to decrease enthusiasm. However, online

learning must still be implemented to meet the needs of students. Students must adapt literacy to technology not only during the Covid-19 pendemic period due to the influence of social distancing but facing the era of the industrial revolution 4.0 students should be able to use and develop technology in learning. Reinforced [21] that developing technology-based learning is important because it is able to facilitate better learning to gain momentum throughout the world, reducing problems associated with conventional learning.

Online learning that has been carried out is inseparable from the constraints. At the Muhammadiyah University of Surabaya, to overcome the constraints of the lack of internet packages for students has been subsidized by giving UKT payment deductions in the midterm exam period and payment at the end of the semester examination period. For payment of tuition fees are given leeway in the repayment, especially during this pandemic. Thus it is expected that the involvement of all students and their activities during the online learning process can be carried out smoothly. Similarly, lecturers for additional subsidized internet quota through their respective faculties, and Moodle facilities with E-learning applications continue to be controlled by the UMSurabaya IT Team to ensure all online learning activitiesrun well. Other obstacles in measuring and developing abilities in aspects of attitude and psychomotor during online learning can be overcome by learning about understanding skills such as understanding procedures, cases related to practicum material. Based [22] that for the implementation of practical learning / practicum can be held in the Laboratory starting July 6, 2020 with due regard to the health protocol for Covid-19.

Some of the constraints of online learning in several Muhammadiyah schools in Surabaya are mainly the limited ability of parents to buy internet packages, so 50% (4 schools have provided financial assistance to purchase internet packages, especially for *Bidik Misi* scholarship students and parents of students affected by Covid-19. that all schools (8 schools) provide relief in payment of tuition fees during this pandemic period. The continuity of online learning activities is very dependent on student involvement, but with limited facilities at home makes a small portion of students who could participate in learning. Through parents learning activities from home inevitably involve parents or the local community. Limited ability of parents to help students to overcome learning difficulties is a factor that influences learning success. Obstacles to achieve learning goals and KKM during learning online indeed needs to be reviewed and acted by improving the learning. Overall learning objectives and material that should have been provided were achieved, but the achievement of the KKM was not yet maximum. The achievement of this KKM is determined by the school's carrying capacity, intake, process of learning outcomes and analysis of learning outcomes. Of course there are still obstacles in the implementation these four factors during the pandemic and this makes feedback to improve the quality of learning to come.

The implementation of online learning in the Covid-19 pandemic at Universities and Schools is very important to be evaluated to ensure the quality of learning. Some of the online learning evaluation activities that have been carried out include midterm, final term, and final school-year assessments using several applications and platforms. During online learning, assessment of learning outcomes tends to be more dominant in measuring the cognitive domain while the affective and psychomotor domains are not maximally performed. Based [23] that the curriculum contains four elements namely learning outcomes, study material, learning process and assessment. Then the implementation of online learning evaluation must include components of 1) learning achievements or learning objectives which is necessary to evaluate the achievement of the three domains of learning objectives, 2) the content or teaching material whether delivered effectively in the breadth and depth perspective, 3) the process, whether the learning time according to the schedule, whether students really learn not only giving online attendace, and 4) assessment of learning outcomes, is it only in the cognitive domain or affective and psychomotor assessments during the online learning. This is confirmed [24],that the process of evaluating comprehensive learning outcomes includes three domains, namely cognitive, affective and psychomotor. The results of the assessment of these three domains will provide a complete picture of the students.

Reflections on the implementation of online learning

Learning during the Covid-19 pandemic period must continue while ensuring the quality of the learning process so that the output of students during this pandemic period still has the value and quality. As a reflection of the learning that has been carried out, 1) for educators, including writers, it is certainly expected to enhance the competency in mastering digital technology, in designing modern online learning with various innovations and attractive learning methods to develop students' competencies in the cognitive, affective and psychomotor domains in this pandemic period. 2) For students,they have to enhance the ability in using technology so that they become better prepared to face the challenges of learning in the industrial era 4.0. and 3) for Educational institutions need to design a curriculum to be more adaptive to extraordinary situations in which integrates the capabilities needed in the industrial era 4.0 namely data, technology, and human literacy.

4. Conclusions

The enactment of social distancing for the prevention of Covid-19 encourages online learning activities. All lecturers at UMSurabaya have implemented online learning with a blended learning system through e-learning with Moodel and combined it with several variations of applications and platforms as well as teachers at schools who carried out online learning in their subjects smoothly. Various applications are used in learning ranging from applications owned by the school itself, applications recommended by the local Education Office such as the teacher's room, learning house, TVRI and combined with several applications such as Zoom, Google Classroom, Google Meet, Telegram, MST, and social media especially is WhatsApp Group. Online learning and blended learning can be implementedeffectivelas the indicators are delivery of material, achievement of learning objectives, and mastery learning. The obstacles that most often arise during the implementation of online learning are internet packages that are not owned by students, limited internet access by educators and students, and unfamiliar activity with the online learning. Finally, evaluation of learning outcomes that have been carried out tends to be more on measuring the ability of students in the cognitive domain, while the affective and psychomotor domains are still not optimal.

5. Acknowledgment

Alhamdulillah, the writer prayed to Allah SWT for his gift to finish this paper. Thank you to the Team at the Center for Educational and Learning Development who have helped in collecting the data. Lastly, a high thank you to the Rector of UMSurabaya along with the Vice rector and the Dean of FKIP UMSurabaya who gave the author the opportunity to present the results of this study at the International Webinar on Education 2020 and publish it in Proceeding.

6. References

[1] Perhimpunan Dokter Paru Indonesia (PDPI), PanduanPraktekKlinis: Pneumonia 2019-nCoV. Jakarta: PDPI, 2020.
[2] S. Boopathi, A.B. Poma, and P. Kolandaivel, "Novel 2019 Corona virus structure, mechanism of action, antiviral drug promises and rule out againt its treatment". *Journal of Biomolecular structure and Dynamics*. ISSN: 0739-1102 (Print) 1538-0254, 2020. (Online) https://www.tandfonline.com/loi/tbsd20.
[3] VD. Hoek, K. Pyrc, MF. Jebbink, OW. Vermeulen-, RJ.Berkhout, KC. Wolthers. "Identification of a new Human Coronavirus".*Nat Med. 2004; 10: 368-373*.
[4] K.Mc. Imtosh, and JA Englund, "*Coronoviruses and toronirises including sever acute respiratory syndrome feing, cherry, Dommler, Harisson, Feigim-cherry textbook of pediatric infectious disease*". 7th edPhiladelphia : Saunders/Elsevier
[5] F. Firdaus, Update Corona Indonesia 23 Mei 2020 & Data COVID-19 DuniaTerbaru (online): https://tirto.id/fCeP
[6] W. Darmalaksana, R. Yuli Ahmad Hambali, A. Masrur, and Muhlas. *Analisis Pembelajaran Online Masa WFH Pandemic Covid-19 sebagai Tantangan Pemimpin Digital Abad 21*. Bandung: UIN Sunan Gunung Djati, Karya Tulis Ilmiah, 2020

[7]   N. Emmanuel Mahaye, *The Impact of COVID-19 Pandemic on Education: Navigating Forward the Pedagogy of Blended Learning*, April 23, 2020. Retrived https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=The+Impact+of+COVID-19+Pandemic+on+Education%3A+Navigating+Forward+the+Pedagogy+of+Blended+Learning++Ngogi+Emmanuel+Mahaye+%2C+23+April+2020&btnG=

[8]   D.R. Ayu Uswatun Khasanah, H. Pramudibyanto, and B. Widuroyekti, Pendidikan Dalam Masa Pandemi Covid-19, *Jurnal Sinestesia, Vol. 10, No. 1*, April 2020 https://sinestesia.pustaka.my.id/journal/article/view/44

[9]   Gunawan, N. Made Yeni Suranti, and Fathoroni, Variations of Models and Learning Platforms for Prospective Teachers During the COVID-19 Pandemic Period, *Indonesian Journal of Teacher Education, Vol. 1 No. 2, 2020: 61-70*

[10]   Surat Edaran Mendikbud Nomor 4 tahun 2020 tentang Pelaksanaan Kebijakan Pendidikan dalam Masa Darurat Penyebaran Covid-19.

[11]   Surat Edaran LLDIKTI Wilayah VII Nomor 578 tahun 2020 tentang Pencegahan Coronavirus pada Perguruan Tinggi di Lingkungan LLDIKTI Wilayah VII.

[12]   Surat Edaran Rektor UMSurabaya Nomor 0290/MLM/II.3.AU/A/2020 tentang Peningkatan Kewaspadaan dan pencegahan Penyebaran Covid-19 di lingkungan UMSurabaya.

[13]   U.A. Chaeruman, "*PEDATI Model DesainSistemPembelajaran Blended*". Direktorat Pembelajaran, Direktorat Jenderal Pembelajaran dan Kemahasiswaan. Kemenristekdikti, 2017.

[14]   M. I. Onwusuru, and B. A. Ogwo, "Cloud-based portal for professional development of technology educators in Nigeria and the emerging virtual workplace". *International Journal of Arts and Technology Education*, 11(01): 1 – 17, 2019.

[15]   B. Allagui, "Writing through WhatsApp: an evaluation of students writing performance". *International Journal of Mobile Learning and Organisation*, 2015.

[16]   S.Grover, B. Garg, and N. Sood, "Introduction of case-based learning aided by WhatsAppmessenger in pathology teaching for medical students".*Journal of Postgraduate Medicine*, 2020.

[17]   N. A. Zulkanain, S. Miskon, and N. S Abdullah, "An adapted pedagogical framework in utilizing WhatsApp for learning purpose". *Education and Information Technologies*, 2020.

[18]   A. Andujar. *Analysing WhatsApp and Instagram as Blended Learning Tools.Recent Tools for Computer- and Mobile-Assisted Foreign Language Learning*, 2020.

[19]   U. Rahaded, E. Puspitasari, and D. Hidayati, "The Impact of WhatsappToward UAD Undergraduate Students' Behavior In Learning Process". *International Journal of Educational Management and Innovation*, 2020.

[20]   S. Mällinen, "Teacher effectiveness and online learning". *In Teaching & Learning Online* (pp. 139-149).Routledge, 2018.

[21]   R. Panigrahi, P. R. Srivastava, and D. Sharma, "Online learning: Adoption, continuance, and learning outcomeA review of literature". *International Journal of Information Management, 43, 1-14*. Pemerintah, 2018.

[22]   Surat Edaran Rektor UMSurabaya Nomor 0380/MLM/II.3.AU/A/2020 tentang Aktivitas Pembelajaran dan Sistem Kerja di Lingkungan UMSurabaya Pasca Tiga Bulan Penyebaran Covid-19.

[23]   Permenristekdikti Nomor 44 tahun 2015 tentang Standar Nasional Pendidikan Tinggi.

[24]   B. S. Bloom, "*Taxonomy of educational objectives. Handbook 1: Cognitive domain*". New York: David McKay, 1956.