

Conference Paper

Online Learning in the Middle of the Covid-19 Pandemic

Ade Onny Siagian^{1*}, Haudi², Aris Ariyanto³, Hadion Wijoyo⁴

¹Faculty of Economics and Business, Bina Sarana Informatika University, Indonesia

²Faculty of Education Buddhist Religious, STAB Dharma Widya, Indonesia

³Faculty of Economics and Business, Universitas Pamulang, Indonesia

⁴Faculty of System Information, STMIK Dharmapala Riau, Indonesia

*Corresponding author:
E-mail: ade.aoy@bsi.ac.id

ABSTRACT

The purpose of this research on the coronavirus or Covid-19 pandemic breaks the traditional learning process. So, we need a way to solve the challenge. Online learning is a kind of Overcome challenge. This is to understand the implementation of the online learning Management Research Program, School of Management, Bina Sarana Informatika University as an effort to Suppress the spread of COVID 19 in higher education. The research sample is a student of the management research program. Data is collected through interviews through zoom cloud conferences. Data analysis uses the Interactive analysis technology of Miles & Huberman. The results show: (1) Students already have the basic facilities required to participate in online learning; (2) Online learning is flexible in implementation, Able to encourage the emergence of independent learning and motivate students to participate more actively Learning; (3) distance learning encourages the emergence of social distancing behaviors and minimizes. The emergence of the student population so that it may be able to reduce Covid-19's University environment. Inadequate supervision of students, high-rise buildings, insufficient signal strength, High-cost Internet credits challenge online learning. Improve learning independence, interest and Motivation, the courage to express ideas and question other benefits of online learning.

Keywords: Covid-19, online learning, social distancing

Introduction

The 2019 coronavirus disease (Covid-19) outbreak has swept across 215 countries around the world Challenges faced by educational institutions, especially universities. To fight Covid-19, the government has banned gatherings, social restrictions (social distance) and physical distance (physical distance) Keep your distance), wear a mask, and wash your hands frequently. Through the Ministry of Education and Culture, the government bans universities from conducting face-to-face (regular) lectures and orders them to be conducted Hold lectures or online learning (Kemendikbud Dikti Circular No. 1, 2020). University is guided Ability to organize online learning (Rhamadani et al., 2021). Many universities responded quickly Government directives, including the University of Indonesia (UI) Prevent the spread of coronavirus disease (Covid-19) in Indonesian universities. In the announcement, there are 10 points, one of which is to recommend the implementation of online learning (SE Kemendikbud Nomor 35952/MPK.A/HK/2020, 2020). Approximately 65 universities in Indonesia have implemented Learn online to deal with the spread of Covid-19.

Online learning has its advantages, challenges, and obstacle. To prevent the spread of Covid-19, WHO calls for an end to incidents that may cause crowds to gather collect. Therefore, face-to-

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face learning with many students gathered in the class was reviewed as implemented. Lectures must be conducted in a scene that prevents physical contact between them Students and lecturers and students and students (Rhamadani et al., 2021). Many universities quickly responded to the government's instructions, including the University of Indonesia (UI), which issued a letter of instruction on preventing the spread of coronavirus disease (Covid-19). There are 10 points in the notice, one of which is the implementation of online learning (SE Kemendikbud Nomor 35952/MPK.A/HK/2020, 2020). About 65 universities in Indonesia have implemented online learning in response to the spread of Covid-19. Online learning has its advantages, challenges, and obstacles. To prevent the spread of Covid-19, WHO has called for an end to incidents that may cause crowds to gather. Therefore, face-to-face learning with many students gathered in the classroom to review its implementation. The lecture scene must be able to prevent physical contact between students and lecturers and between students and students (Rhamadani et al., 2021). The use of digital technology can enable students and lecturers to carry out the learning process even in different places. The lecture format that can be used as a solution during the COVID-19 pandemic is online learning.

Online learning is learning using an Internet network with accessibility, connectivity, flexibility, and the ability to bring various types of learning interaction. Research conducted by Limbong et al. (2020) shows that the use of the Internet and multimedia technologies can change the way knowledge is spread and can replace learning in traditional classrooms. Online learning is a learning that can bring students and lecturers together for interactive learning with the help of the Internet (Hermanto & Sidqon, 2020). At the implementation level, online learning requires the support of mobile devices such as smartphones or Android phones, laptops, computers, tablets, and iPhones to access information anytime and anywhere (Yakobus, 2019). Universities during WFH need to implement online learning reinforcement (Sobri et al., 2020). Since the past few years, online learning has become a demand in the education community (Sekarasri et al., 2020). Learning in the era of Industrial Revolution 4.0 requires online learning (Jannah et al., 2020).

The use of mobile technology has made significant contributions to educational institutions, including achieving distance learning targets (Septiani & Setyowati, 2020). Various media can also be used to support the implementation of online learning. For example, the virtual classroom uses Google Classroom, Edmodo, and Schoology services (Haryati & Sukarno, 2021), and instant messaging applications, such as WhatsApp (Utami & Utami, 2020; Shinta Daulay et al., 2020). You can even learn online through social media such as Facebook and Instagram (Gede & Zainuddin, 2020). Online learning connects students with learning resources (databases, experts/instructors, libraries), Physically separate or even far away, but can communicate, interact or collaborate (direct/synchronous and indirect/asynchronous). Online learning is a form of distance learning that uses telecommunications and information technology (such as the Internet, CD-ROOM) (Atsani, 2020). The purpose of this study is to outline the online learning situation in the Bina Sarana Informatika University Management Research Program during the COVID-19 pandemic.

Material and Methods

The Type of Study used is qualitative research. The purpose of this study is to describe the online learning conducted in the Bina Sarana Informatika University Management Research Program to suppress the spread of Covid-19 in the university environment. The online learning referred to in this research is learning using learning media that can be accessed through Internet services. The study first surveyed students on online learning applications. The survey was distributed using Google Sheets provided to students via WhatsApp messages. 96 subjects responded to the distributed survey. Then divide the survey results are divided into three types of student responses: (1) agree with the application of online learning; (2) disagree with the application of online learning; (3) have doubts about the implementation of online learning.

The subjects of the study were students from the management research project of Bina Sarana Informatika University. They conducted online learning and grouped them according to the answers of the subjects. There are 12 subjects, 4 in 2017, 4 in 2018, 4 in 2019, 8 boys, and 4 girls. Data collection is done by Interviews by phone and/or zoom cloud meetings. The aspects asked in the interview were: (1) the facilities and infrastructure of students' online learning; (2) students' feedback on the effect of online learning; (3) implementing online learning to break the spread of Covid-19 in the university environment chain. The analysis of research data adopts the analysis model of Miles and Huberman (1994), including three stages: data restoration, data display, conclusion, and verification.

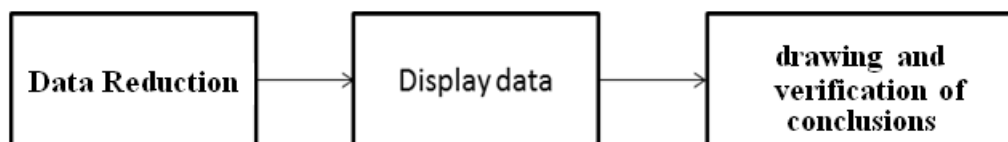


Figure 1. Stages of research data analysis

The data analysis of the research data reduction phase is to collect all required information from the interview results, then group the data. The data presentation stage is to display the data needed in the research, and students do not have enough facilities for online learning increased use of the Internet needs to be abandoned. The conclusion drawing and verification stage is the interpretation stage of the research data to draw conclusions based on the obtained phenomena (Miles & Huberman, 1994).

Results and Discussion

The data analysis

The research data reduction stage is the stage in which all necessary information is collected from the interview results and then the data is grouped. The data presentation stage is to display the research data reduction stage is the stage in which all necessary information is collected from the interview results and then the data is grouped, and students do not have enough facilities for online learning Indonesia is affected by the development of Information and Communication Technology (Huda, 2020). In 2018, 62.41% of the Indonesian population had a mobile phone, 20.05% of households have a computer. These data are related to the research results, which show that although some students do not have laptops, almost all students have smartphones. The survey conducted shows that 54 people have smartphones and laptops, and 42 people only have smartphones.

The use of smartphones and laptops in online learning can improve student learning outcomes (Fuadi et al., 2020). (Rosali, 2020); (Baety & Munandar, 2021) stated that there are many advantages of using information and communication technology in the implementation of online learning.

Some of them are not Not limited by space and time. Many studies have been conducted to examine the use of devices such as smartphones and laptops in studies. The ability of smartphones and laptops to access the Internet helps students to participate in online learning (Riyanda et al., 2020; Fuadi et al., 2020; Ningsih, 2020); (Baety & Munandar, 2021). The use of online learning using zoom cloud meetings has the advantage of being able to interact directly between students and lecturers as well as teaching materials but has the disadvantage of being wasteful of power and less effective if there are more than 20 students (Riayah & Fakhriyana, 2021).

In addition, the challenge of online learning is the availability of Internet services. Some students use cellular services to access the Internet, a few students use WiFi services. When the online learning policy was implemented at Bina Sarana Informatika University, students returned home. They have difficulty cellular signals when in their respective areas, even if there is a signal

that is obtained is very weak. This in itself is the challenge of online learning applications at Bina Sarana Informatika University. Online learning has weaknesses When the Internet service is weak and students have a poor understanding of the instructor's guidance (Safitri & Nugraheni, 2020).

The data analysis of the research data reduction stage is the stage in which all necessary information is collected from the interview results and then the data is grouped. The data presentation stage is to display the data needed in the research, and students do not have enough facilities for online learning Another challenge is the obstacle to financing online learning. The students revealed that to participate in online learning, they had to pay a considerable amount of money to buy Internet data quotas. According to them, learning in the form of video conferences consumes a lot of data quotas, while online discussions through instant messaging applications do not require a lot of quotas. The average student spends Rp. 100,000 rupiah 200,000 times a week, depending on the cellular service provider used. The cost of using video conferencing for online learning is very high (Riayah & Fakhriyana, 2021).

Although the use of equipment can support online learning, there are also negative effects that require attention and foresight, that is, excessive use of equipment. They admitted that in addition to studying, students also use smartphones for social media and watching YouTube videos. Social media has entered the field of early adulthood (Tanjung et al., 2021). Students visit social media in the context of self-expression to build friendship networks and opinions (Fitri et al., 2020). Unfortunately, due to excessive use of gadgets, many people become addicted to gadgets (Mubarizi et al., 2020). It is necessary to worry about the entry of misleading information and inattention during the learning process due to playing social media (Dewi, 2020). In addition, students who are addicted to devices have academic and social problems (Limbong, 2020). Learners with gadget addiction have emotional and behavioral problems (Darmalaksana et al., 2020).

Effectiveness of online learning

Online learning was carried out at the Management Study Program, Bina Sarana Informatika University to break the chain of the spread of Covid-19 using learning applications that can be accessed by network Internet. Overall, students are satisfied with flexible learning. With online learning, students are not constrained by time and place where they can attend lectures from their respective homes or from anywhere. With online learning, lecturers provide lectures through virtual classes that can be accessed anywhere and anytime, not bound by space and time. This condition allows students to freely choose which courses to take and which assignments to do first. The research of (Fitria, 2013) informs that the flexibility of time, learning methods, and places in online learning affect student satisfaction with learning.

It was found that a unique research result from this study was that students felt more comfortable in expressing ideas and questions in online learning. The following learning from home makes them not feel the psychological pressure from their peers that they usually experience when attending face-to-face learning. The absence of lecturers directly or physically also causes students to feel not awkward in expressing ideas. The absence of physical barriers and limitations of space and time make students more comfortable in communicating (Fitria, 2013). Furthermore, online learning eliminates the feeling of awkwardness which in the end makes students dare to express themselves in asking questions and expressing ideas freely.

Online learning also has the advantage of promoting self-regulated learning. The use of online applications can increase independent learning (Gusti, Sri, 2020; Sobri et al., 2020). (Revilda et al., 2021) stated that online learning is more student-centered which causes them to be able to generate responsibility and autonomy in learning (learning autonomy). Online learning requires students to prepare for their learning, assessment, management and at the same time maintain motivation for learning (Fitria, 2013) stated that online learning can increase student interest. Online learning faces special challenges, The position of the student and the lecturer is separated during the process, resulting in the lecturer to not be Ability to directly supervise students'

activities during the learning process. Can't guarantee students are serious in listening to reviews from lecturers. In their research, it was reported that students fantasize more often in More online lectures than face-to-face lectures. Therefore, considering that the online teaching time exceeds one hour and students have difficulty concentrating, it is recommended to shorten the online learning time (Fuadi et al., 2020).

The results of the study also reported that not a few students had difficulties in understanding the lecture material given online. Teaching materials are usually delivered in the form of readings that are not easily understood by students thoroughly (Rosali, 2020). They assume that the material and assignments are not enough because they need an explanation directly from the lecturer. The lecturer often came in and gave explanations provided better learning than classes where the lecturers rarely came to class and gave explanations.

The data analysis in the research data reduction stage is the stage in which all necessary information is collected from the interview results, and then the data is grouped. The data presentation stage is to display Data needed for research, and students do not have enough facilities for online learning Another challenge is the obstacle to financing online learning. The students revealed that to participate in online learning, they had to pay a considerable amount of money to purchase Internet data quotas. According to them, learning in the form of video conferencing consumes a large amount of data quota, while online discussions through instant messaging applications do not require a lot of quotas. The average student spends IDR 100,000-200,000 times a week, depending on the cellular service provider used. Online learning using video conferencing is very expensive (Riayah & Fakhriyana, 2021).

Online learning breaks the spread of Covid-19 in universities The Covid-19 outbreak is an epidemic that spreads very fast and very fast. This epidemic attacks the human immune and respiratory systems (Yunita, 2020). This outbreak is prevented by avoiding direct interaction between the infected person and those at risk of exposure to the coronavirus (Handayani et al., 2020). Regulating the physical distance and contact the chance Spreading the virus is called social distancing (Nurmaliah & Nursyamsiah, 2020).

To curb the spread of Covid-19 in the campus environment, Bina Sarana Informatika University has implemented online learning rules. Lectures are conducted online, which facilitates online interaction between teachers and students. Lecturers can create textbooks that students can access anytime, anywhere. According to (Nurmaliah & Nursyamsiah, 2020), online learning allows interaction through the network even if they are located in different places (Isroqmi, 2020). The presence of teachers and students in different places during learning eliminates physical contact and can encourage the emergence of social distancing behaviors. Maintaining social distancing is a good solution to prevent the spread of Covid-19. The implementation of online learning allows students and lecturers to carry out lectures from their respective homes. Students can access lecture materials and send assignments given by lecturers without having to physically meet on campus. This action can reduce the emergence of mass crowds on campus as happened in face-to-face lectures. (World Health Organization, 2020) recommends that social distancing can prevent the transmission of Covid-19. Although, in urban areas that do not have good internet access due to the disruption of many skyscrapers, the application of online learning shows a different trend. In dealing with this condition, students who live in big cities sometimes with weak internet signals will look for certain positions to get internet access.

Conclusion

To break the chain of transmission of COVID-19 in the university environment, the Management Study Program, Bina Sarana Informatika University, carried out online learning as a solution for implementing learning. The results showed that students had the facilities and infrastructure to carry out online learning. Online learning is effective for overcoming learning that allows lecturers and students to interact in virtual classes that can be accessed anywhere and anytime. Online learning can make students learn independently and increase their motivation.

However, there is the weakness of online learning is that students are not properly monitored during the online learning process. The weak internet signal and the high cost of the quota are challenges for online learning. However, online learning can reduce the spread of Covid-19 in universities.

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References

- Atsani, L. G. M. (2020). Transformasi Media Pembelajaran Pada Masa Pandemi Covid-19. *Jurnal Studi Islam*, 1(1), 82-93.
- Baety, D. N., & Munandar, D. R. (2021). Analisis Efektifitas Pembelajaran Daring Dalam Menghadapi Wabah Pandemi Covid-19. *EDUKATIF: Jurnal Ilmu Pendidikan*, 3(3), 880-889. Doi: <https://doi.org/10.31004/edukatif.v3i3.476>
- Darmalaksana, W., Hambali, R. Y. A., Masrur, A., & Muhlas. (2020). Analisis Pembelajaran Online Masa WFH Pandemic Covid-19 sebagai Tantangan Pemimpin Digital Abad 21. *Karya Tulis Ilmiah (KTI) Masa Work From Home (WFH) Covid-19 UIN Sunan Gunung Djati Bandung Tahun 2020*.
- Dewi, W. A. F. (2020). Dampak COVID-19 terhadap Implementasi Pembelajaran Daring di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 2(1), 55-61. <https://doi.org/10.31004/edukatif.v2i1.89>
- Fitri, M., Sibuea, L., Sembiring, M. A., Tama, R., & Agus, A. (2020). Efektivitas Pembelajaran Daring Berbasis Media. *Journal of Science and Social Research*, 3(1), 73-77. <https://doi.org/10.54314/jssr.v3i1.430>
- Fitria. (2013). Penggunaan alat komunikasi daring via whatsapp group dalam pembelajaran seni tari pada kelas X OTKP SMK Kartika 1-2 Padang. *Skrripsi Jurusan Sendratasik FBS Universitas Negeri Padang*.
- Fuadi, T. M., Musriandi, R., & Suryani, L. (2020). Covid-19 : Penerapan Pembelajaran Daring di Perguruan Tinggi. *Jurnal Dedikasi Pendidikan*, 4(2), 193-200.
- Gusti, S. D. (2020). Belajar mandiri: Pembelajaran daring di tengah pandemi. *Yayasan Kita Menulis*.
- Handayani, D., Hadi, D. R., Isbaniah, F., Burhan, E., & Agustin, H. (2020). Corona Virus Disease 2019. *Jurnal Respirologi Indonesia*, 40(2), 119. <https://doi.org/10.36497/jri.v40i2.101>
- Haryati, S., & Sukarno, S. (2021). Inovasi pembelajaran daring di era pandemi COVID-19. *Indonesian Journal of Education and Learning*, 4(2), 479-485. <http://dx.doi.org/10.31002/ijel.v4i2.3717>
- Hermanto, A., & Sidqon, M. (2020). Integrasi video conference dalam aplikasi pembelajaran siswa sekolah dasar untuk kemudahan interaksi dan evaluasi proses belajar mengajar secara daring. *JurTI (Jurnal Teknologi Informasi)*, 4(2), 362-369.
- Huda, I. A. (2020). Perkembangan Teknologi Informasi Dan Komunikasi (TIK) terhadap kualitas pembelajaran di Sekolah Dasar. *Jurnal Pendidikan Dan Konseling (JPDK)*, 2(1), 121-125. <https://doi.org/10.31004/jpdk.v1i2.622>
- Isroqmi, A. (2020). Pentingnya Penguasaan Beberapa Aplikasi Komputer Bagi Dosen di Pembelajaran Daring Berbasis Moodle. *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang 10 Januari 2020*.
- Jannah, M., Bustamam, N., & Yahya, M. (2020). Kesiapan Diri Mahasiswa Dalam Menghadapi Perkuliahan Daring. *JIMBK: Jurnal Ilmiah Mahasiswa Bimbingan & Konseling*, 5(3), 13-18.
- Gede, L. & Zainuddin. (2020). Transformasi Media. *Al Hikmah: Jurnal Study Islam*.
- Limbong, A. (2020). Pengaruh model pembelajaran daring akibat pandemi covid-19 terhadap prestasi belajar mahasiswa UNAI pada Semester Genap 2019/2020. *TelKa*, 10(2), 161-168. <https://doi.org/10.36342/teika.v10i2.2386>
- Limbong, M., Ali, S., Rabbani, R., & Syafitri, E. (2020). Pola interaksi guru dan orang tua dalam mengendalikan emosional siswa selama pembelajaran daring di MTS Islamiyah Medan. *THORIQTUNA: Jurnal Pendidikan Islam*, 3(1), 44-55. <https://doi.org/10.47971/tjpi.v3i1.226>
- Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. In *Nursing standard (Royal College of Nursing (Great Britain) : 1987)*.
- Mubarizi, A. F., Pangestuti, H., Selviana, M., & Saputri, A. (2020). Dampak covid-19 terhadap kesejahteraan psikologis (*Psycal-Well-Being*) selama pembelajaran daring di Sekolah Dasar Kabupaten Batang. *Abdimas*, 24(1), 1-6.
- Ningsih, S. (2020). Persepsi Mahasiswa Terhadap Pembelajaran Daring Pada Masa Pandemi Covid-19. *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran)*, 7(2), 124-132. <https://doi.org/10.17977/um031v7i22020p124>
- Nurmaliyah, S., & Nursyamsiah, N. (2020). Persepsi Peserta Didik Terhadap Media Pembelajaran Daring Pada Mata Pelajaran Bahasa Indonesia Di Masa Pandemi Covid-19. *Jurnal Ilmiah Pendidikan Bahasa Dan Sastra Indonesia*, 2(2), 142-152. <https://doi.org/10.32585/klitika.v2i2.1126>
- Revilda, E., Hadi, N., & Purwasih, J. H. G. (2021). Dampak belajar dari rumah. *Naturalistic : Jurnal Kajian Penelitian Pendidikan Dan Pembelajaran*, 5(2), 822-832. <https://doi.org/10.35568/naturalistic.v5i2.1133>
- Rhamadani, D., Maesaroh, & Putri, R. (2021). Proses pembelajaran secara daring selama pandemi. *Proceding Secretari Universitas Pamulang*, 1(1), 14-18.
- Riayah, S., & Fakhriyana, D. (2021). Optimalisasi pembelajaran dalam jaringan (daring) dengan media pembelajaran video interaktif terhadap pemahaman matematis siswa. *Jurnal Pendidikan Matematika (Kudus)*, 4(1), 19-30. <https://doi.org/10.21043/jmtk.v4i1.10147>
- Riyanda, A. R., Herlina, K., Wicaksono, B. A., & Lampung, B. (2020). Evaluasi implementasi sistem pembelajaran daring. *Jurnal IKRA-ITH Humaniora*, 4(1), 66-71.
- Rosali, E. S. (2020). Aktifitas pembelajaran daring pada masa pandemi covid -19. *Geography Science Education Journal (GEOSEE)*.

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- Safitri, A. R. N., & Nugraheni, N. (2020). Dampak covid-19 terhadap proses pembelajaran daring di sekolah dasar. *Prosiding Seminar Nasional Institut Agama Hindu Negeri Tampung Penyang Palangka Raya*.
- SE Kemendikbud Nomor 35952/MPK.A/HK/2020. (2020). Pembelajaran secara Daring dan Bekerja dari Rumah dalam Rangka Pencegahan Penyebaran Corona Virus Disease (COVID- 19). In *Mendikbud RI*.
- Sekarasri, A., Gunawan, A., & Utomo, N. (2020). Edukasi Visual Sebagai Media Pembantu Pembelajaran Jarak Jauh Pada Siswa Sekolah Dasar. *Prosiding Konferensi Nasional Pengabdian Kepada Masyarakat Dan Corporate Social Responsibility (PKM-CSR)*, 3(20), 739-747. <https://doi.org/10.37695/pkmcsr.v3i0.784>
- Septiani, E., & Setyowati, L. (2020). Penggunaan Media Pembelajaran Secara Daring Terhadap Pemahaman Belajar Mahasiswa. *Prosiding Seminar Nasional Pascasarjana Universitas Negeri Jakarta*, 1(1), 121-128.
- Shinta Daulay, R., Pulungan, H., Noviana, A. 3, & Hurhaliza, S. (2020). Manfaat teknologi smartphone di kalangan pelajar sebagai akses pembelajaran di masa pandemi corona-19. *Al Ulum*.
- Sobri, M., Nursaptini, N., & Novitasari, S. (2020). Mewujudkan kemandirian belajar melalui pembelajaran berbasis daring diperguruan tinggi pada era industri 4.0. *Jurnal Pendidikan Glasser*. 4(1), 1-5. <https://doi.org/10.32529/glasser.v4i1.373>
- Tanjung, R., Hadiansah, D., Sauri, S., & Cepi Barlian, U. (2021). Inovasi Pembelajaran Daring Melalui Penggunaan Aplikasi Media Sosial (Social Networking). *Biomatika: Jurnal Ilmiah Fakultas Keguruan Dan Ilmu Pendidikan*. 7(1), 92-99. <https://doi.org/10.35569/biormatika.v7i1.966>
- Utami, S., & Utami, P. (2020). Penggunaan whatsapp group dan google classroom untuk meningkatkan partisipasi dan hasil belajar peserta didik teknik audio video. *Elinvo (Electronics, Informatics, and Vocational Education)*, 5(1), 110-115. . <https://doi.org/10.21831/elinvo.v5i1.34254>
- World Health Organization. (2020). WHO Timeline - COVID-19. *Who*.
- Yakobus. (2019). *Strategi pembelajaran daring berbasis multimedia di SMA Negeri 1 Menjalin Kabupaten Landak Provinsi Kalimantan Barat*.
- Yunita, N. W. (2020). Penyebab, Asal Mula, dan Pencegahan Virus Corona di Indonesia. *Journal of Environmental Management*. <https://news.detik.com/berita/d-4956764/penyebab-asal-mula-dan-pencegahan-virus-corona-di-indonesia>