

Utilization of Online Learning Media During the Pandemic Period in Higher Education: Zoom, Google Classroom, and Google Meet

Salsabila

Fakultas Tarbiyah, Universitas Ibrahimy, Indonesia

salsabila@ibrahimy.ac.id

Moh. Zamili

Fakultas Tarbiyah, Universitas Ibrahimy, Indonesia

fine.zam@gmail.com

Alhamuddin

Fakultas Tarbiyah dan Keguruan, Universitas Islam Bandung, Indonesia

alhamuddinpalembang@gmail.com

ABSTRACT

This study aims to analyze and describe the use of online learning media (Zoom, Google Classroom, and Google Meet) during the Covid-19 Pandemic at the Tarbiyah Faculty, Universitas Ibrahimy. The advantages and disadvantages of online learning media are studied in-depth to analyze the effectiveness and pandemic phenomena experienced by lecturers, staff, and students. The accuracy of the data was obtained through triangulation techniques and analyzed interpretively to find significant meaning in the development of continuous learning.

KEYWORDS

Online Learning Media,
Zoom,
Google Meet,
Google Classroom,
Covid-19 Pandemic,

DOI : 10.35316/ris.v1i2.422
Corresponding author : salsabila@ibrahimy.ac.id

Introduction

The Covid-19 pandemic is not over yet, but the educational process must continue for students' future. The education process is a formal and informal delivery of information, knowledge, and information (Zamili, 2021), and the world is currently facing a global pandemic caused by the spread of Corona Virus Disease, better known as Covid-19. Indonesia has also experienced a moderately severe impact from the spread of this disease, including one of the universities of Universitas Ibrahimy, Situbondo, so the teaching and learning process through face-to-face meetings is directly hampered.

In education, the government, through the Ministry of Education and Culture (Kemendikbud), strives so that education actors such as educators and students can still organize teaching and learning differently. During this Covid-19 Pandemic, the government, through the ministry of education and culture Nadiem Makarim, on March 24, 2020, has issued a Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning the Implementation of Educational Policies in the Emergency Period of the Spread of Covid-19 and a Circular Letter of the Secretary-General of the Ministry Education and Culture Number 5 of 2020 concerning Guidelines for Organizing Learning from Home (online) in the Emergency Period for the Spread of Covid-19

(Kementerian Pendidikan dan Kebudayaan, 2020). One of the contents is about the policy of carrying out the learning process from home (Izzatunnisa et al., 2021). The Ministry of Education and Culture stipulates a regulation that education in Indonesia is still held, but with a different system, namely Study From Home (Putro et al., 2020).

Advances in information and communication technology currently bring various changes in human life, especially in education. The principle applied in the policy during the Covid-19 pandemic is that the health and safety of students, educators, education staff, families, and the community is a top priority in setting learning policies (Gusti & Santika, 2020). In the current pandemic conditions, online or online learning technology allows teaching staff and students to interact remotely but requires a lot of preparation, including technology, teacher characteristics, and student characteristics.

Before the Covid-19 Pandemic, face-to-face learning directly between lecturers and students was effective. Lecturers can meet directly with students and deliver lecture material smoothly without any distance. However, since the Covid-19 Pandemic, or what we often hear as the corona, it was not allowed to gather with large communities when Social Distancing was implemented. So the government's policy states that all learning activities are carried out online or online. However, at the Universitas Ibrahimy, especially at the Tarbiyah Faculty, not all courses are held online, or only a few are online. Lecturers in the Pondok Pesantren environment continue to carry out face-to-face learning processes directly. In contrast, Lecturers who teach online lectures are the only lecturers outside the Pondok Pesantren environment (lecturers outside a 3 km radius). With the holding of online learning during this Pandemic Period, the learning process runs optimally.

The use of internet-based media, of course, requires internet access, all of which of course requires a large amount of money, primarily if use video calls which consume the internet very quickly and drain much quota as well as the tools needed in the online learning process such as cellphones, smartphones, tablet, laptops, and the like. Because the students being studied are currently located in Islamic boarding schools which do not use mobile phones, smartphones, tabs, laptops, and the like, the online learning process, especially at the Tarbiyah Faculty, is facilitated by the Faculty, which provides study quotas that can be obtained through the school. Moreover, students can use the online media application for free without a fee. The necessary tools have also been provided directly by the staff at the Tarbiyah Faculty. So, students have to wait for the lecturer and receive the material to be delivered.

One of the media that can be used to carry out the learning process from home during this Pandemic Period is learning online or using social media, including Zoom Meeting, Google Classroom, and Google Meet. With this media, it is easier to interact directly between teaching staff and students without having to meet face to face even though it is far away, so the teaching and learning process continues as it should without anyone being left behind. Utilizing one of these social media can benefit both parties, namely the teaching staff and students. Teaching staff can convey information related to learning materials that follow the course material, curriculum, and level of education or semester, giving assignments even though not directly. In addition, it can benefit students, namely being able to receive learning material that has been delivered and can accept assignments that the teaching staff has directed.

Taking into account the current conditions, significantly higher education students, especially at the Tarbiyah Faculty of the Universitas Ibrahimy, the researcher feels that the use of online media is appropriate for the learning process during the Covid-19 Pandemic because most lecturers who are not in the Pondok Pesantren environment cannot enter the Pondok Pesantren. Boarding school. Therefore, so that learning can run smoothly as it should and achieve educational goals, online media is crucial to help students learn. The media used are Zoom, Google Classroom, and Google Meet. There are advantages and disadvantages. Among the disadvantages are inadequate internet

facilities, laptops, and the like, lack of interaction between lecturers and students, and less than an optimal understanding of the material. The advantages are more practical and efficient learning, knowing how to use science and technology through the online learning media, and a change in students from being passive to being active.

Some research shows that at the junior high school level, online learning applications based on Google Classroom, Google Meet, and Zoom support distance learning during the Covid-19 pandemic (Purba et al., 2020). The results of the study explain that the use of social media for students of SMUN 1 Makassar greatly supports the learning process because the school is one of the schools that has the availability of adequate information technology facilities such as internet networks (wifi) and policies that allow students to bring cellphones/smartphones to school (Sriwahyuni, 2019). It supports students to access the internet and utilize social media in supporting the learning process. In addition, research was conducted at Universities in the DKI Jakarta and Depok areas. The purpose of this study is to find out how big the utilization, impact, and response of each student who is undergoing education to distance learning using Zoom Meeting, as well as to find solutions to the use of ICT applications implemented by the university for its students so that learning can run optimally. and every student benefits from the distance learning process in the Covid-19 Pandemic. Another study showed that Zoom Meeting and Google Classroom use the Lesson Study method in the Innovation course; the subject of this research is the Lecturer (Dewi et al., 2021). The Lesson Study method includes three steps a plan (planning), do (implementation), and see (reflection). With this step, lecturers immediately get essential information from observers to improve the quality of learning (Sukawati, 2021).

By utilizing the Google Meet application in listening and speaking skills for language learning, students who were previously inactive (passive) to be active or less active become even more active, and can provide a more extensive learning experience regarding the use of online applications using Google Meet. Utilizing Google Classroom is one of the free access that makes it easier for lecturers in the e-learning process and as an online learning medium that can create equal opportunities for all students and encourage students to learn more about internet literacy (Atikah et al., 2021). Zoom Meeting application-based learning is very useful, especially in the midst of the Covid-19 Pandemic, because this application is considered practical and efficient and communication is easier than communicating in writing via chat (Walni, 2019).

Methodology

Research on the use of online learning media (zoom, google classroom, and Google Meet) in the learning process during the Covid-19 Pandemic at the Tarbiyah Faculty of University Ibrahimy is field research whose database is taken directly from the Tarbiyah Faculty of Ibrahimy University. This study uses a qualitative approach based on the philosophy of postpositivism with a case study method (Zamili, 2013). The researcher's position takes place in the condition of the natural object, where the researcher is the key instrument, and the data collection technique is done by triangulation—the combination is divided into three parts, namely a combination of observations, interviews, and documentation. Data analysis is inductive. The results of qualitative research emphasize meaning rather than generalization or understanding meaning, uniqueness, and finding hypotheses.

Results and Discussion

The Coronavirus outbreak that hit Indonesia not only had an impact on health and the economy but also in the field of education, especially in learning. The government regulates the plan by implementing Physical Distancing or keeping a distance. One of

these policies is mainly in the field of education; the central government issued a policy by eliminating teaching and learning activities directly in schools and replacing them with online learning, which is carried out online by utilizing advanced technology media, which can be via zoom, google classroom, google meet, etc. The media is a tool in the learning process that can be used according to the conditions, time, finances, and teaching materials that will be delivered to students.

At first, online learning by educators and students was considered less effective than the application of online learning because it had never been done before and without any preparation and was immediately applied just like that. However, educators are expected to take advantage of technological media already available in online-based learning (e-learning) so that learning materials can be conveyed to students properly. However, by using online-based learning technology media, of course, there are advantages and disadvantages experienced by educators and students in its implementation. Therefore, researchers want to know how to use online learning media (zoom, google classroom, google meet) in the learning process during the Covid-19 pandemic. Knowing the applications of these online-based learning will make it easier to determine the follow-up to be taken.

During the Covid-19 Pandemic, the government, through the ministry of education and culture Nadiem Makarim, on March 24, 2020, issued a circular that contains policies regarding the learning process from home or online. Since the implementation of Social Distancing (maintaining distance), the government's policy states that all learning activities are carried out online or online. Along with technological advances, utilizing online learning media in the form of zoom, google classroom, google meet, WhatsApp, youtube, telegram, and so on is considered very appropriate to carry out the process of teaching and learning activities during the pandemic and very helpful for both parties, both educators and students because they do not allow to gather with large communities.

The COVID-19 outbreak in Indonesia has had a significant impact on the world and can be seen very clearly by the various changes that occur in life, both in the social, economic, and especially in the world of education. Two years ago, at the beginning of December 2019 to be precise, there was an uproar about the news about Covid-19 or what we hear more often as the corona, which has entered the horseshoe area has caused several institutions such as schools and universities to stop the face-to-face learning process directly. Likewise, the University of Ibrahimy Sukorejo Situbondo institution. Since the Covid-19 outbreak in the Sukorejo area, precisely in the Salafiyah Syafi'iyah Islamic Boarding School, all schools and lectures have been closed. After some time (mid-December 2019), the lectures began to be active again as they should. However, by using online lectures, of course, the facilities and infrastructure had been prepared beforehand by the campus, considering that in the Islamic boarding school environment it was not allowed to use electronic tools or media in the form of cellphones, smartphones, tabs, laptops, computers and the like.

Changes in the learning process which are usually carried out face-to-face, are then changed online to reduce social contact between someone who causes an increase or spread of COVID-19 with an increasing number, so education must continue even in the current tense conditions—considering that education is an essential element in creating an entire generation of the nation for the survival of the next human being. So online learning that is applied during the outbreak of the covid-19 outbreak is very effective. On the other hand, education will continue to run, following health protocols to break the spread of covid-19 by reducing social contact, physical distancing, and outside the home. Lessons learned during this pandemic are very much needed.

Efforts to use online-based learning media in the learning process at the Tarbiyah Faculty of Ibrahimy Sukorejo University are implemented optimally. The campus has provided the necessary facilities for the lecture process, such as laptops, wifi, sound systems, television, and others. The most important tools needed in the online lecture process are an internet network and a strong network quality, as well as an adequate laptop for the lecture process that can be adequately conditioned. Sometimes, learning outside the classroom uses an LCD and a projector as a facilitator. How to apply online lectures here is carried out according to a schedule that has been made and determined by the Faculty and will inform the lecturer concerned when to fill out online lectures of course according to the existing schedule and when the lecturer concerned will conduct lectures, the lecturer concerned first contact the staff to get a ling zoom meeting according to class lectures.

Furthermore, for students, first, do information about this online lecture schedule. Lecturers and students are also starting to adapt to these media and are getting used to using online learning media. In addition, the obstacles that occur can be appropriately resolved so that lectures can run smoothly and effectively. Therefore, the Faculty of Tarbiyah, Ibrahimy Sukorejo University, Situbondo, utilize online learning media for teaching and learning activities so that learning continues as it should.

Teaching to keep it going well. As the results of research in the field, the use of online learning media in the learning process during the covid-19 pandemic at the Tarbiyah Faculty, Ibrahimy Sukorejo University, Situbondo utilizes one of the internet-based technology media in the form of zoom meetings, google meet and google classroom which is applied to students for the process of learning activities. Technology media use in online learning during this pandemic helps an education run. Based on an appeal from the minister of education and culture who suggested that all learning activities usually carried out face-to-face are directly replaced by online learning/with an online model. Therefore this online learning is conducive.

At first, the lecturers who lived around the Islamic boarding school used face-to-face lectures and online learning. However, when the pandemic in the second year got worse, it was decided that the entire lecture process was online—some of the underlying reasons for doing online learning. One of the reasons is using the media the Faculty assess as a qualified application in helping online lectures run. In addition, to break the chain of the spread of the coronavirus, during this pandemic, the interaction between lecturers and students continues to carry out the process of teaching and learning activities even though they are online.

Types of Online Learning Media

Zoom is a meeting communication application with video and screen sharing with some participants, up to 100 members, and even up to 1000 more who can join this application. This video conference application has a duration of time when we have meetings with other people. However, this is especially helpful for those who want to have direct discussions using the virtual room because it has ample enough space for one meeting. When used for the learning process, we will feel that we are face to face directly because we can see people far away by turning on the camera that we have inside using this zoom platform (Astini, 2020).

The founder of the zoom meeting application is Eric Yuan, which was inaugurated in 2011 and whose head office is in San Jose, California. This application is not only used for learning but can be used for office and other matters. This free platform can be used by anyone with a time limit of forty minutes, and there is no time limit if our account is paid. In this zoom meeting application, we can communicate directly with anyone via video. Therefore, it can be used as a learning medium (Haqien & Rahman, 2020). In general, zoom meetings are used to conduct meetings. This application can be used via

a computer or laptop, cellphone, and so on. Besides that, it can also be accessed through the website, both Mac OS, Windows, Linux, iOS, and Android; it can also be used on various mobile devices, desktops, telephones, and room systems.

With the development of technology, this zoom meeting can not only be used to conduct a meeting in the office but also in educational institutions in every school, college, or university to carry out learning. Seeing the current conditions, especially at the University of Ibrahim, especially at the Tarbiyah Faculty, the learning process must continue during the Covid-19 pandemic even though it is not facing to face (online) but through various applications which is by using the zoom meeting application. Utilizing this application can make it easier for lecturers to interact directly with students without having to meet face to face because some lecturers who are not in the Pondok Pesantren environment cannot teach directly but online or online. Through this zoom meeting application, permanent teachers or lecturers can explain the learning materials that the lecture material, the curriculum will deliver, and the level of education or semester, can discuss, assign assignments, and others and students or students can also receive learning and accept assignments that the teacher has directed—lecturer well without anyone being left behind.

Google classroom is one of the media forums created by G-Suite that allows lecturers to create online classes, invite students to join classes, submit modules and assignments related to the teaching and learning process, and provide material that will be taught and later can be learned by students. Either in the form of presentation files or teaching videos, giving assignments to students, making the final schedule for collecting assignments, and others (Adisel & Pranayasa, 2020). Google Classroom is a free web service developed by Google for schools, which aims to simplify creating, distributing, and grading assignments without having to meet face-to-face. The main goal of Google Classroom is to streamline the filing process between teachers and students (Permata & Bhakti, 2020). The google classroom is an application that is used in the world in the scope of education that can make it easier in ongoing learning, especially during a pandemic like today (Hanifah Salsabila et al., 2020).

Google Classroom can be used by everyone from different scopes or levels of education, from elementary, junior high, high school/vocational school, or university levels. Besides being easy to use, Google Classroom is also very efficient and not too complicated when we will access and use it to do the learning provided by teachers and lecturers who use this platform in the distance learning process during this pandemic (Islami & Al Ayubi, 2020). Among the features possessed by Google Classroom are assignments, grading, communication, time-cost, archive course, display class code, mobile application, and privacy. Gmail, Youtube, Google Drive, Google Maps, and Google Translate are supporting features on the Google Classroom platform.

Of course, the Google Classroom application has several advantages and disadvantages, which is certainly not much different from the Zoom Meeting application. One of the advantages of this application is that the use of the Google classroom platform can help lecturers in terms of assessment because the value will be listed automatically, and the value will appear after the student has completed the task given by the lecturer before the deadline according to the correctness of the answer.

Google Meet is a video-conferencing application used for online meeting processes created and developed by Google. Google Meet can be used for meetings, interviews, teaching and learning processes, and so on (Faseh & Gumiandari, 2021). Google Meet allows you to make high-quality video calls for groups of up to 250 people (Pernantah et al., 2021). Google Meet, just like Google Classroom, is part of the G-Suite, which is provided to facilitate teaching and learning activities that can help teachers, lecturers, and students meet face to face via a smartphone or laptop screen and greet each other through the voice provided by Google Meet. The use of Google Meet is reasonably easy

to use through any media. It can be used via a PC or desktop, computer, laptop, or mobile devices such as cellphones or tabs already available at their respective institutions or companies. So, the use of Google Meet is also relatively flexible according to needs.

Disadvantages and Advantages of Online Learning Media

Learning, conducted in class and outside, uses media, especially internet-based media; of course, there are several obstacles, weaknesses, and advantages. Online media that is applied in learning helps students keep learning even though the situations and conditions are not conducive to face-to-face learning. The obstacles that occur when online learning takes place are;

- 1) Human Resources who do not understand, In this case, it can happen when operating the technology media used, such as zoom, google classroom, google meet and others, whether it is from lecturers, staff or students, sometimes there are still people who do not know technology. The solution is to conduct training on how to operate the Zoom application, Google Classroom, Google Meet, and the like for both lecturers and students.
- 2) Use of Laptops, computers, televisions, sound systems, and sockets. Sometimes these tools become obstacles when online learning takes place. What is more important is a laptop, if the laptop used is inadequate in the sense that the laptop we need and the large number of students do not really support lectures so that the lecture classes that should be able to be held are delayed due to the insufficient number of laptop units. The solution is to change the schedule so the existing tools can be used optimally.

Classification of Online Learning Constraints

Unstable internet connection. Online learning certainly requires a muscular signal strength to access the internet connection properly. If the signal is strong, the material to be delivered will be maximal, and vice versa. If the signal is weak or unstable, online learning is not practical, and maximal—interruptions when the internet connection is unstable or weak, such as video that suddenly pauses and intermittent sound. If one of the two parties, the Faculty, and the lecturer, loses the network and the video suddenly pauses, the lecture will be delayed, so lecture activities do not go as desired.

Facilities and infrastructure. The limited facilities and infrastructure facilitated such as laptops, televisions, sockets, sound systems for lecture rooms, and others. So that when there is a concurrent lecture schedule between one lecturer and another, there is one who does not get a laptop or lecture room to support the online lecture process.

Less than optimal delivery and acceptance of lecture material, In this case, not all the material presented by the lecturer is easy for students to accept or understand, primarily through online learning; for example, for dance lectures, it is not enough to use the material but also practices it. The online learning process causes the students to be less than optimal in asking questions as well as the lecturers' lack of flexibility in answering student questions. Of course, delivering material through a face-to-face process is more effective and maximal—the limited question and answer between lecturers and students.

Classification of advantages of online learning media

Able to follow trends. Lecturers and students will be able to keep up with the times (update) and be technologically literate in terms of technology application. The development of the times will certainly bring people to join in mingling in it. With online

learning, like it or not, lecturers and students must also apply technology according to the times.

Unlimited time and place. Now learning with an online system, lecturers and students do not have to be in one place during the implementation of learning, even though lecturers and students are separated in one place, either in one village, sub-district, district, province, or even state, they can still carry out learning. It will not be a dividing wall. The implementation of learning can take place anytime and anywhere. It makes it easier to correct assignments. Since when learning is online, because assignments are done and sent via files or the like, the lecturers concerned do not need to bother correcting manually but directly with technology.

Reduce paper waste. With the existence of internet-based technology media, the reduction of paper waste is reduced little by little. Because tasks are carried out and sent via files/similar, this impacts reducing paper waste or waste. The results achieved from using online learning media using applications in the form of zoom, google meet and google classroom are considered less able to meet the target of student understanding of the lecture material being taught.

Conclusion

Since the start of the pandemic, learning has been limited to lecturers. So one way to keep the lecture process running is by online learning to avoid viruses; the most important thing is that the number of lecture hours from each lecturer is fulfilled, and students can receive the material delivered even if the lecturer is not there. One of the efforts in utilizing online learning media in the learning process during this pandemic is to maximize the media by compiling an adjusted schedule, the facilities and infrastructure needed, and applications that support the learning process in the form of zoom applications google meet, and google classroom.

The disadvantage of using this media if we use it as a teaching tool or deliver lecture material is that students do not understand the material presented by the lecturer because sometimes explanations are interrupted. Some students cannot take part in teaching and learning activities properly, in the sense that they do not fully listen to the explanation of the material from the lecturer because teaching and learning activities with this model lecturer cannot directly supervise students who are serious about listening to the material and students who are not serious about listening to the material presented by the lecturer. While the advantage found, namely learning by using online learning, is to minimize the material not conveyed to students to allow 80% of the material to be conveyed by the lecturer because it is not optimal in delivering the material.

References

- Adisel, A., & Pranansa, A. G. (2020). Penggunaan Teknologi Informasi dan Komunikasi dalam Sistem Manajemen Pembelajaran pada Masa Pandemi Covid 19. *Journal Of Administration and Educational Management (ALIGNMENT)*, 3(1), 1–10. <https://doi.org/10.31539/alignment.v3i1.1291>
- Astini, N. K. S. (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>
- Atikah, R., Prihatin, R. T., Hernayati, H., & Misbah, J. (2021). Pemanfaatan Google Classroom Sebagai Media Pembelajaran Di Masa Pandemi Covid-19. *JURNAL PETIK*,

7(1), 7–18. <https://doi.org/10.31980/jpetik.v7i1.988>

- Dewi, K., Pratisia, T., & Putra, A. K. (2021). Implementasi pemanfaatan google classroom, google meet, dan instagram dalam proses pembelajaran online menuju abad 21. *Jurnal Integrasi Dan Harmoni Inovatif Ilmu-Ilmu Sosial*, 1(5), 533–541. <https://doi.org/10.17977/um063v1i5p533-541>
- Faseh, U. K., & Gumiandari, S. (2021). Impelementasi Media Daring Dalam Mendukung Pembelajaran di Masa Pandemi. *Journal Of Dehasen Educational Review*, 1(03), 110–115. <https://doi.org/10.33258/jder.v1i03.1221>
- Gusti, I., & Santika, N. (2020). Optimalisasi Peran Keluarga Dalam Menghadapi Persoalan Covid-19: Sebuah Kajian Literatur. *Jurnal Ilmiah Ilmu Sosial*, 6(2), 127–137. <https://doi.org/10.23887/JIIS.V6I2.28437>
- Hanifah Salsabila, U., Irna Sari, L., Haibati Lathif, K., Puji Lestari, A., & Ayuning, A. (2020). Peran Teknologi Dalam Pembelajaran Di Masa Pandemi Covid-19. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, 17(2), 188–198. <https://doi.org/10.46781/al-mutharahah.v17i2.138>
- Haqien, D., & Rahman, A. A. (2020). Pemanfaatan Zoom Meeting untuk Proses Pembelajaran pada Masa Pandemi Covid-19. *SAP (Susunan Artikel Pendidikan)*, 5(1). <https://doi.org/10.30998/sap.v5i1.6511>
- Islami, W. N., & Al Ayubi, S. (2020). Konsep Perkuliahan Daring Google Classroom dalam Meningkatkan Interaksi Akademik Di Tengah Pandemi Korona. *FIKROH: Jurnal Pemikiran Dan Pendidikan Islam*, 13(2), 106–131. <https://doi.org/10.37812/fikroh.v13i2.96>
- Izzatunnisa, L., Suryanda, A., Kholifah, A. S., Loka, C., Pertiwi, P., Goesvita, I., Aghata, P. S., & Anggraeni, S. (2021). Motivasi Belajar Siswa Selama Pandemi dalam Proses Belajar dari Rumah. *Jurnal Pendidikan*, 9(2), 7–14. <https://doi.org/10.36232/PENDIDIKAN.V9I2.811>
- Kementerian Pendidikan dan Kebudayaan. (2020). *Sikapi COVID-19, Kemendikbud Terbitkan Dua Surat Edaran*. Surat Edaran. <https://www.kemdikbud.go.id/main/blog/2020/03/sikapi-covid19-kemdikbud-terbitkan-dua-surat-edaran>
- Permata, A., & Bhakti, Y. B. (2020). Keefektifan Virtual Class dengan Google Classroom dalam Pembelajaran Fisika Dimasa Pandemi Covid-19. *JIPFRI (Jurnal Inovasi Pendidikan Fisika Dan Riset Ilmiah)*, 4(1), 27–33. <https://doi.org/10.30599/jipfri.v4i1.669>
- Pernantah, P. S., Nova, N., & Ramadhani, A. S. (2021). Penggunaan Aplikasi Google Meet dalam Menunjang Keefektifan Belajar Daring Masa Pandemi Covid-19 di SMA Negeri 3 Pekanbaru. *Pedagogi: Jurnal Ilmu Pendidikan*, 21(1), 45–50. <https://doi.org/10.24036/pedagogi.v21i1.991>
- Purba, R., Siregar, A., Siahaan, R., Jayanti S., S. E., & Rusmewahni. (2020). Pembelajaran Berbasis Google Classroom, Geoogle Meet dan Zoom Guru SMP Negeri 2 Batubara. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 1(4), 410–416. <https://doi.org/10.31949/jb.v1i4.464>
- Putro, K. Z., Amri, M. A., Wulandari, N., & Kurniawan, D. (2020). Pola Interaksi Anak dan Orangtua Selama Kebijakan Pembelajaran di Rumah. *Fitrah: Journal of Islamic Education*, 1(1), 124–140. <https://doi.org/10.53802/fitrah.v1i1.12>
- Sriwahyuni, W. (2019). Analisis Pemanfaatan Media Sosial Dalam Menunjang proses Pembelajaran Siswa SMUN 1 Makassar. *Medialog: Jurnal Ilmu Komunikasi*, 55(1), 54. <http://jurnal-umbuton.ac.id/index.php/Medialog/article/view/155>
- Sukawati, S. (2021). Pemanfaatan Zoom Meeting dan Google Classroom dalam Mata Kuliah Inovasi Pembelajaran Berbasis Lesson Study. *Semantik*, 10(1), 45–54. <https://doi.org/10.22460/semantik.v10i1.p45-54>

- Walni, M. (2019). *Proses Pembelajaran Masa Pandemi Covid-19 Berbasis Aplikasi Zoom Meeting*. 2(1), 1–8. <https://osf.io/preprints/y2t3j/>
- Zamili, M. (2013). Skesta Penelitian Kualitatif dalam Pendidikan. In *LISAN AL-HAL: Jurnal Pengembangan Pemikiran dan Kebudayaan* (Vol. 7, Issue 1). <https://journal.ibrahimy.ac.id/index.php/lisanalhal/article/view/60>
- Zamili, M. (2021). The education process viewed from the standard-based education paradigm in public schools: a case from Central Java, Indonesia. *Management and Entrepreneurship: Trends of Development*, 1(15), 127–139. <https://doi.org/10.26661/2522-1566/2021-1/15-09>