# Evaluating Learning Management Through Online Mode During the Covid-19 Pandemic

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This research aims to describe the obstacles in the online mode learning process in public junior high schools in Palembang. It uses a qualitative descriptive research method, which is a method that describes the object of research at present based on facts that appear as they should. The data collection technique used was in-depth interviews, observation, and documentation. Respondents came from teachers as educators, students as students, and parents of students as companions in the implementation of learning carried out by teachers and students. The study results show that the obstacles to online learning in the junior high school in Palembang city are the infrastructure facilities provided by the school. The knowledge of the technology skills used by teachers for online learning could be better. The technological facilities owned by students and the assistance provided by parents of students to accompany their children in implementing online learning at public junior high schools in Palembang could be better.

Keywords: learning, online, subjects, technology infrastructure

## INTRODUCTION

Coronavirus is a collection of viruses that infect the respiratory system. On March 11, 2020, the world health organization (WHO) declared Covid-19 a global pandemic. Until now, this outbreak has not ended. Now it is recorded in Indonesia that there have been cases of reporting cases of Covid-19 as many as 6.74 million people, and a total of 161 thousand people died due to Lachén-Montes et al.(2022). In addition to the high number of fatalities caused by the Covid-19 pandemic, this has also affected all sectors of life, including education (Amin et al., 2021; Collantes et al., 2022; Lin et al., 2022; Yulianti & Mukminin, 2021).

The education sector is one of the sectors affected by this pandemic. It is shown by the Circular of the Ministry of Education and Culture (Kemendikbud) Number 4 of 2020 concerning education policies during the Covid-19 pandemic. In this circular, the Ministry of Education and Culture advises students to learn from their respective homes and instructs learning activities to be carried out online (in a network). It can be seen from the circular letter that the government instructs that all levels of education, from elementary

school to tertiary institutions, are not allowed to educate their students face-to-face as usual. Learning can only be allowed online (in the network) (Kementerian Pendidikan dan Kebudayaan, 2020; Yulianti & Mukminin, 2021). Learning is a system, meaning a whole consisting of components that interact with one another and with the whole itself to achieve predetermined teaching goals (Kohnke, 2022). Learning is the core activity of the student education process at school. In this activity, students can directly study every subject in school with the help of teachers as learning resources, facilitators, motivators and mentors, and educators for students so that students gain knowledge, skills, and good values (Özüdoğru, 2022).

During the Covid pandemic, learning activities between teachers and students must still be carried out. Therefore, during this pandemic, online learning is the solution. Online learning will certainly require technological infrastructure to support the continuity of online learning (Renfrew et al., 2020). Information technology can be accepted as a medium in carrying out the educational process, including assisting the teaching and learning process, which also involves searching for references and sources of information (Habibi et al., 2022; Habibi et al., 2023; Mukminin et al., 2022; Mukminin et al., 2023; Susanti et al., 2022; Wekke & Hamid, 2013). In online learning, teachers usually use WhatsApp and Zoom. The use of the application is supported by facilities that support online learning. In addition, the teacher makes preparations before the learning process takes place (Masdoki et al., 2021). Teachers also make learning videos or download videos from the internet as learning media and share them with students. Both educators and students must have good facilities and knowledge of technology-likewise, the parents of students play an essential role in the teaching and learning process (Basilaia & Kvavadze, 2020). Parental involvement is crucial, so children excel at school during this Covid-19 pandemic (Nurleni et al., 2021; Velasco et al., 2022). This online learning is ideal for parents to accompany their children while studying. If at a superior or integrated Islamic school, parents are looking for a private teacher to accompany their child to study through online learning parents with good economic conditions.

The impact of Covid-19 can also be felt in public junior high schools in Palembang. Because the policy carried out by the Indonesian government was issued suddenly due to a pandemic, the government did not prepare technological facilities in every school, especially junior high schools in the city of Palembang, and the preparation of teachers who gave material to their students had not been well prepared. Teachers also need help in terms of using online learning applications. Surahman et al. (2020) found that teacher quality is related to the teacher's ability to use information technology in learning which is considered very low, influenced by age factors and laptop ownership. Facilities and infrastructure include internet networks that still need to reach rural areas, unstable internet networks, and costs to buy internet quotas (Naeim et al., 2022). These technological facilities and knowledge are not only from schools, but the abilities of students and families are also critical because online learning is not only the interaction of students and teachers but involves assistance from the family so that online learning becomes effective (Sun, 2021).

Therefore, the researcher intends to examine the obstacles to managing to learn through online methods that occur in junior high schools in Palembang. From the results of this research, it is hoped that the school and student families can work together to educate children so that they can effectively carry out the teaching and learning process through online methods.

# LITERATURE REVIEW

#### **Covid-19 Pandemic**

The Covid-19 outbreak was first detected in Wuhan, Hubei, China, on December 1, 2019. It was an event of the spread of Coronavirus disease 2019, abbreviated as Covid-19, worldwide for all countries. This virus spreads very quickly. Other infectious diseases spread easily if there are similarities in blood type, but this is not the case with the coronavirus. If the patient has been in contact with less than 1 meter, then it is confident that the person is positive for Covid (Bwerinofa et al., 2022). Several types of coronaviruses can also cause more serious illnesses, such as Middle East Respiratory Syndrome (MERS-CoV), Severe Acute Respiratory (SARS-CoV), and Pneumonia (Covid-19 Handling Task Force, 2021). The World Health Organization (WHO) defined them as a pandemic on March 11, 2020 (Lachén-Montes et al., 2022).

The pandemic does not stop and can create significant life moments. Large-scale outbreaks of these infectious diseases can increase morbidity and mortality over a wide geographic area and cause political, social, and economic turmoil (El Khateeb & Shawket, 2022).

- A pandemic can cause economic losses through several channels, including short-term fiscal and longer-term adverse economic growth shocks.
- Changes in individual behavior, such as reluctance to go to work and other public gatherings out of fear, are the leading cause of adverse shocks to economic growth during a pandemic.
- Several pandemic mitigation measures can cause significant economic and social disruption.
- Mortality rates in pandemics are usually higher than in epidemics.
- In countries with weak institutions and a legacy of political instability, the pandemic can increase political tension and stress. In this context, epidemic response measures like quarantines fueled violence and tension between the government and citizens.

This pandemic has caused global socio-economic disruption, postponement, or cancellation of sports and cultural events, including the education sector, which has been badly affected by this pandemic; all levels of education, from universities to kindergartens are closed (Sanz et al., 2022). The Indonesian government officially stipulates that the Covid-19 outbreak is a national disaster through Presidential Decree 12 of 2020 concerning the Stipulation of Non-Natural Disasters of the Spread of Covid-19 as a National Disaster. The President of the Republic of Indonesia, Joko Widodo, stated that policies for productive breaks from home must be implemented to suppress the spread of the coronavirus or the outbreak of the covid-19 disease (Covid-19 Handling Task Force, 2021). Efforts to prevent the spread of the coronavirus include travel restrictions, quarantine, curfews, closing regional borders, and limiting passengers on airplanes, trains, ships, and all public transportation, whether they want to enter or leave certain areas (Zanotto et al., 2020).

## **Online Method Learning**

Online learning: learning from a distance using an Android cellphone or laptop using several applications such as WhatsApp, YouTube, Google Meet, Zoom, etc. Online learning can be done using e-learning or third-party applications supporting online learning processes, such as zoom meetings, Google Classroom, Google Meet, and cloudX (Maulana, 2021). With the COVID-19 virus, the learning process has changed. Initially, studying at home took only two weeks, but to prevent the broader spread of Covid-19, the government decided to study online or online (Covid-19 Handling Task Force, 2021) from face-to-face—distance learning (Lin et al., 2022). After several months online and the spread of the Covid-19 virus has decreased considerably, a new normal era has emerged (Covid-19 Handling Task Force, 2021). In this situation, the government again asks schools to combine online and face-to-face learning, and students are arranged so that most are online and some come to school with a brief study time and a stringent health protocol (Altohami et al., 2022). However, at the beginning of July 2021, cases of Covid-19 increased, and a new variant appeared, namely the Delta variant. In this situation, the government again calls for implementing online learning for an unspecified time limit (Covid-19 Handling Task Force, 2021).

Finally, online learning at all levels of education, from kindergarten to tertiary level, is inevitable; all students are doing their best to do distance learning, parents are busy preparing smartphones whose prices are pretty high, even if they buy used ones, students are required to learn independently only learning via cellphone there is no teacher where to ask questions from time to time, the teacher does not know the students well, the students do not know each other either (Hernandez et al., 2021). However, in these circumstances, the teacher still must carry out his obligations as a teacher, where the teacher must ensure that students can obtain information/knowledge to be given to students (Wandini & Lubis, 2021).

#### **Learning Management**

According to KBBI, management comes from the primary word "Manage," which is a management process, making it so that the work done can run well. Learning management is done so that the teaching and learning process between students and teachers can interact well and achieve the desired goals (Altohami et al., 2022). Learning is often called measuring knowledge, a person's agility in using a particular device or equipment: a person's view or insight into something (Kavanagh, 2020). Learning often means attending school or a certain level of formal education.

Management of learning through the online method is a strenuous effort so that the teaching and learning process between students and teachers via the internet or in terms of distance learning or learning in the network can run well by the expected goals. Keengwe and Georgina (2012) stated that technological developments make changes to the implementation of teaching and learning (Keengwe & Georgina, 2012). One of the learning methods that are suitable to be applied in learning at SMPN Palembang is the contextual learning method. According to Xu (2022), contextual learning is a holistic educational process. It aims to motivate students to understand the meaning of the subject matter they are studying by associating the material with the context of their daily lives (personal, social, and cultural contexts). So that students have abilities/skills that can be flexibly applied (transferred) from one problem/context to another problem. In contextual learning, the learning program is more of a class activity plan designed by the teacher, which contains step-by-step scenarios about what will be done with the students regarding the topics to be studied (Schijns, 2021). This program includes learning objectives, media to achieve these goals, learning materials, learning steps, and authentic assessment.

### **Barriers to Online Learning**

Of course, this distance learning provides its challenges for teachers. Teachers must master technology quickly and independently, search for learning material online and send it to students via WhatsApp (Martin, 2020). Sometimes, errors occur in making test questions via Google Forms, such as participants cannot open to questions because of account problems. Apart from that, the teacher needs to learn about the students better, what is the character of the students, and what is the condition of their children (Demshina & Mosunova, 2021). Even students, of course, have more complex problems dealing with changes in the teaching and learning process pattern, starting from needing a cell phone (Movassaghi et al., 2021). For less able student, of course, they think about how to buy their quota and how to download the application ordered by the teacher because they have an old cellphone with memory limited (Pimlott-Wilson & Holloway, 2021). As for all online learning using the WhatsApp application, they do not use other applications due to limited internet quota, so parents and students object to using several applications.

In comparison, Daheri et al. (2020) research revealed that online learning via WhatsApp in elementary schools tends to be ineffective. According to Fajrin and Wulandari (2021) in the results of their research, online learning during the Covid-19 pandemic in 2020 and 2021 was categorized into six categories namely (1) gadgets and operating applications in gadgets, (2) internet connection, (3) financial, (4) material understanding, (5) communication, and (6) the comfort of the teaching and learning process. A similar research written by Utami (2020) entitled 'Obstacles and the Role of Parents in Online Learning During the Covid-19 Pandemic' stated that many obstacles faced by parents in online learning included (1) internet signal, which is sometimes difficult, (2) expensive quota, (3) unable to accompany their children fully, (4) parents do not understand the material, so they cannot teach their children optimally, (4) there is no cell phone, so you need to ask a friend directly. From several previous studies, the Covid-19 pandemic has considerably impacted the teaching and learning process involving students, parents, and teachers, as much-needed cooperation between parents and teachers (Wei et al., 2022). Further research is needed in the management of this online learning. It underlies the author's research entitled Constraints in managing learning through online mode during the covid-19 pandemic (Lütcke et al., 2021).

## METHODOLOGY

This research uses a qualitative research approach with descriptive methods (Creswell, 2012). The researcher uses a qualitative descriptive research type because it fits the needs of this research, where this research tells and describes the data about the process that has taken place, whether it matches what was interviewed and what happened in the field when the researcher saw it or is it inversely proportional to those being interviewed (Mertens, 2010). The research aims to describe the obstacles in the online learning process during the Covid-19 period at Palembang City Public Junior High School based on the facts that appear using a qualitative approach. The data collection method used in this research was a questionnaire in the form of a Google Form. Informants in this research were teachers, parents, and students.

## FINDINGS

#### **Online Learning During Covid-19**

This online learning method uses electronic media, which includes hardware and software, where faceto-face meetings are not carried out directly, but via video call media which can still interact between educators and their students (Diva et al., 2021; Marzulina et al., 2033; Mukminin et al., 2020; Mukminin, & Habibi, 2019). Many applications can be used so that teachers and students can interact correctly and interestingly, for example, WhatsApp, Zoom, Google Meeting, Google Classroom, Edmodo, Learning House, Teacher's Room, Your School, Smart Class, Zenius, Google Suite for Education, and Microsoft Office 365 for Education (Daheri et al., 2020).

Online learning is carried out at home using an Android cellphone, and participants are asked to use specific applications. From the data taken by teachers who were interviewed, all of them show that the application used is WhatsApp (WA). Moreover, some teachers use learning through learning videos such as YouTube. Moreover, the Google Form is used for the end-of-semester assessment.

In starting online learning, the teacher and students agree that attendance is still considered even though learning is not face-to-face. What is meant by the presence here is that participants are ready with their cellphones when the lesson schedule starts, but some students still need to participate in online learning. It is because faulty mobile phones, no quota, unstable networks, and power outages constrain it.

The teacher makes a mechanism for collecting assignments by collecting via WA. However, some students continue to collect assignments at school, so it is contrary to the government's decision to prohibit direct interaction between teachers and students during the pandemic. It happens as an effort by the teacher to continue to see the students' responsibility for their duties. Besides that, some students also do not have cell phones because of the economic situation of their families with a terrible economy.

Motivation is the ability of a leader to provide enthusiasm so that its members can support and work sincerely to achieve organizational goals. It will be learned and consciously accepted to maintain shared interests or maintain the smooth running of tasks in online learning programs (Halimatusadiya et al., 2022; Habibi, Mukminin, & Sofyan, 2023).

This motivation is always given by teachers at Palembang state junior high schools because it is to maintain the enthusiasm of their students to participate in online learning.

In the online learning process to deal with students, some teachers use classmates who already understand to communicate with students who do not understand. In contrast, some teachers will explain again until students understand. If students still need help understanding the material that has been reexplained, students are assigned to face-to-face offline at school with a record of complying with health protocols.

In online learning, students study independently in their own homes without interacting with friends in one room. Of course, this kind of atmosphere could be more comfortable and exciting, so they need presentations of interesting, colorful material that can attract attention. Thus, online learning is exciting, and students can follow it well.

Some teachers only provide photographed material and send it to the WhatsApp group. The use of this application, which is still minimal, is caused by a sudden pandemic, so teachers need to be sufficiently

prepared to face such rapid changes. Then the age factor is no longer productive for studying technology, especially getting to know the applications that are on smartphones.

As social beings, humans need other people in almost all of their activities, such as social life, work, and learning. It will be more meaningful if done together. There are teachers and peers so that learning is enjoyable. It is different if learning is done alone. Of course, it will be seized by a feeling of loneliness, and in the end, it will affect the activity of students. Some teachers try to deal with students who need to be more active in learning by contacting their parents or visiting the students' village to see an understanding of the material that has been delivered.

Several factors for students not participating in online learning include cellphone problems, quotas, signals, parents' conditions, etc. Every class must have students who do not have cell phones. Almost all teachers say something like this. Some teachers deliver material in written form to deal with students who need devices to support online learning.

#### **Interviews With Parents of Students**

As many as 88% of parents disagree with online learning. The reasons include their children very rarely doing online assignments because they always play games, TikTok, Instagram, etc. Other parents say that it is very inconvenient for us as parents because children take lessons lightly by looking at Google without understanding or understanding the questions given by the teacher.

As many as 33% complained about the obstacles their children studied online, some complained about wasteful quota packages, complained about the limitations of children in absorbing the knowledge provided by the teacher, complained that because there was only one cell phone, it could interfere with parents' work, there were complaints from parents that were quite lengthy namely; my child has difficulty doing the assignments given because the subject teacher does not explain it in advance and my child never or rarely meets his schoolmates, there are complaints from parents who feel bothered because online learning includes; the method is online learning but still have to go to school to submit hardcopy assignments, why children are not asked to send assignments via email or other learning applications; my time is up because there are three online children, so my homework is neglected.

Some parents gave suggestions, including Mrs. DI stating that schools should provide online learning facilities to children whose parents cannot provide Wi-Fi in the school environment, provide free quota or lend cell phones to them. Some parents suggest that for every lesson, teachers and students must meet face to face often, even with Zoom meetings, so children will be afraid and responsible for doing their assignments.

After about two years of online learning, students can feel the difference between online learning and face-to-face learning so that they can write down their opinions. As many as 79% of students do not like online learning, and all the reasons are boring, need help to comprehend the subject matter, and need to meet friends. Only 21% of students like online learning, some give reasons, and some do not. Students who think positively because learning can manage time, add insight and ability to use various applications in the learning process, and increase closeness with family.

#### **Barriers to Learning Through Online**

As many as 80% of students encounter obstacles in online learning, namely, a need for more understanding of the subject matter. As expressed to the students, they were confused because there was no explanation that we could learn. Some students think it is not easy to understand and ask directly. Some students overcome these problems by asking subject teachers, searching for answers on Google, asking parents, siblings, or uncles, asking friends for help, and taking additional lessons.

There 35% of students experience barriers to learning online because of cell phones, including signal disturbances, no quota, bad weather such as heavy rain, power outages, and Wi-Fi which is always a problem, some do not even have their cell phone, so one family only has 1 Android cell phone belonging to their parents used together like the student's confession that his parents could not afford it because the money from his father was barely enough to eat.

Even though online learning is carried out at home, parents still pay attention to their children and keep them from studying online alone because children end up not learning but opening other applications such as games, TikTok, Instagram, and others (see an interview with parents). Their parents did not accompany as many as 43%, and the parent's condition is working. AA wrote that he was not accompanied in online learning because his parents were busy working.

## CONCLUSIONS

The change in learning patterns from face-to-face learning to online learning greatly impacted teachers, parents, and students in junior high schools in Palembang. For learning to run smoothly, cooperation from various parties is needed. Schools must move quickly, responsively, and clearly in dealing with these changes, starting from attractive infrastructure and application knowledge for teachers to support online learning. Parents and students must be adaptive to changes in existing technology. The author notes several obstacles in managing the online learning mode, which are 1) the teacher must make the most of the smartphone applications, 2) infrastructure constraints, technological facilities that do not support, and frequent power outages, 3) assistance from parents needs to be maximized.

# REFERENCES

- Altohami, W.M.A., Hashem, M.E., Omar, A., & Hussein, M.S.M. (2022). Technological affordances and teaching in EFL mixed-ability classes during the Covid-19 pandemic. *International Journal of Advanced Computer Science and Applications*, 13(3), 371–380. https://doi.org/10.14569/IJACSA.2022.0130346
- Amin, S., Mukminin, A., Setiawati, R., & Fitriaty, F. (2021). Empowering leadership and human resources through stimulating innovative behaviors in higher education. [Osnaživanje vodstva i ljudskih potencijala kroz poticanje inovativnog ponašanja u visokom obrazovanju] Zbornik Radova Ekonomskog Fakultet Au Rijeci, 39(2), 381–399. doi: 10.18045/zbefri.2021.2.381
- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 Coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 1–9. https://doi.org/10.29333/pr/7937
- Bwerinofa, I.J., Mahenehene, J., Manaka, M., Mulotshwa, B., Murimbarimba, F., Mutoko, M., ...
  Scoones, I. (2022). What is "community resilience"? Responding to Covid-19 in rural Zimbabwe.
  BMJ Global Health, 7(9). https://doi.org/10.1136/bmjgh-2022-009528
- Collantes, L.M., Torres, J.M., Astrero, E.T., Gaboy, R.G., Castillo, M.E.G.C., & Mukminin, A. (2022). Perspectives, challenges, and opportunities: The pandemic teaching experiences in science courses. *Journal of Higher Education Theory and Practice*, 22(4), 75–90. doi:10.33423/jhetp.v22i4.5131
- Creswell, J.W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* Pearson.
- Daheri, M., Juliana, J., Deriwanto, D., & Amda, A.D. (2020). Efektifitas WhatsApp sebagai media belajar daring (The effectiveness of WhatsApp as an online learning media). *Jurnal Basicedu*, 4(4), 775– 783. https://doi.org/10.31004/basicedu.v4i4.445
- Demshina, N.V., & Mosunova, L.A. (2021). The principle of complementary interactivity in information work with schoolchildren. *Scientific and Technical Information Processing*, 48(2), 107–113. https://doi.org/10.3103/S0147688221020064
- Diva, A.S., Chairunnisa, A.A., & Mufidah, T.H. (2021). Pembelajaran daring di masa pandemi Covid-19 (Online learning during the Covid-19 pandemic.). *Current Research in Education: Series Journal*, *1*(1), 1–10.
- El Khateeb, S., & Shawket, I.M. (2022). A new perception; generating well-being urban public spaces after the era of pandemics. *Developments in the Built Environment*, 9(1–9). https://doi.org/10.1016/j.dibe.2021.100065

- Fajrin, N.D., & Wulandari, S. (2021). Kendala dan solusi pembelajaran daring selama masa pandemi Covid-19 di sekolah dasar Se-Pulau Madura (Obstacles and solutions to online learning during the Covid-19 pandemic in elementary schools throughout Madura Island). *Briliant: Jurnal Riset* dan Konseptual, 6(4), 874–889. https://doi.org/10.28926/briliant.v6i4.776
- Habibi, A., Mukminin, A., & Sofyan, S. (2023). Access to the digital technology of urban and suburban vocational schools. *Educ Inf Technol*. https://doi.org/10.1007/s10639-023-12006-x
- Habibi, A., Razak, R.A., Yusop, F.D., Muhaimin, M., Asrial, A., Mukminin, A., & Jamila, A. (2022).
  Exploring the factors affecting pre-service science teachers' actual use of technology during teaching practice. *South African Journal of Education*, 42(1). doi: 10.15700/saje.v42n1a1955
- Habibi, A., Sofyan, S., & Mukminin, A. (2023). Factors affecting digital technology access in vocational education. *Scientific Reports*, 13(1). doi: 10.1038/s41598-023-32755-6
- Halimatusadiya, Dewi, R.a.K., & Khoimatun. (2022). Analysis of the implementation of online learning during the Covid-19 pandemic period in elementary schools. *Jurnal Educatio FKIP UNMA*, 8(1), 229–235. https://doi.org/10.31949/educatio.v8i1.1888
- Hernandez, A.M., Daoud, A., Woodcock, A., & Landin, K. (2021). Examining field experiences of teacher candidates during Covid-19: Systemic inequities unveiled for underserved English learners in K-12 grades. *Journal of Hispanic Higher Education*. https://doi.org/10.1177/15381927211057764
- Kavanagh, D. (2020). James March in Irvine: A history of the ahistorical in organisation theory. *Management Learning*, *51*(1), 35–54. https://doi.org/10.1177/1350507619869680
- Keengwe, J., & Georgina, D. (2012). The digital course training workshop for online learning and teaching. *Education and Information Technologies*, 17(4), 365–379. https://doi.org/10.1007/s10639-011-9164-x
- Kementerian Pendidikan dan Kebudayaan. (2020). Pedoman penyelenggaraan elajar dari rumah dalam masa darurat penyebaran Corona Virus Disease (Covid-19)tentang Surat Edaran Nomor 15 Tahun 2020 (Guidelines for organizing learning from home during an emergency period of the spread of Corona Virus Disease (Covid-19) regarding Circular Letter Number 15 Year 2020). Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Kohnke, L. (2022). A pedagogical chatbot: A supplemental language learning tool. *RELC Journal*. https://doi.org/10.1177/00336882211067054
- Lachén-Montes, M., Mendizuri, N., Ausín, K., Echaide, M., Blanco, E., Chocarro, L., . . . Santamaría, E. (2022). Metabolic dyshomeostasis induced by SARS-CoV-2 structural proteins reveals immunological insights into viral olfactory interactions. *Frontiers in Immunology*, 13. https://doi.org/10.3389/fimmu.2022.866564
- Lin, C.-H., Wu, W.-H., & Lee, T.-N. (2022). Using an online learning platform to show students' achievements and attention in the video lecture and online practice learning environments. *Educational Technology and Society*, 25(1), 155–165. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85125412916&partnerID=40&md5=b96f4e5cdf1f09d2145950855405de72
- Lütcke, B., Günther, J., Köhnen, J., Puchinger, A., & Schmidt, A. (2021). Tip training of intensive medical support in the case of a pandemic [Tip – training intensivmedizinischer unterstützung im pandemie-fall]. *GMS Journal for Medical Education*, 38(1), 1–8. https://doi.org/10.3205/zma001419
- Martin, L. (2020). How digital technology is revolutionising apprenticeships [Comment le numérique révolutionne les apprentissages ?]. *Soins*, 65(846), 35–39. https://doi.org/10.1016/S0038-0814(20)30115-8
- Marzulina, L., Habibi, A., Mukminin, A., Desvitasari, D., Yaakob, M.F., & Ropawandi, D. (2023). The Integration of Social Networking Services in Higher Education: Benefits and Barriers in Teaching English. In I. Management Association (Ed.), *Research Anthology on Applying Social Networking Strategies to Classrooms and Libraries* (pp. 1816–1833). IGI Global. https://doi.org/10.4018/978-1-6684-7123-4.ch098

- Masdoki, M., Din, R., & Effendi Ewan Mohd Matore, M. (2021). Teaching 4.0 competency in higher learning institutions: A systematic mapping review. *International Journal of Learning, Teaching* and Educational Research, 20(10), 217–231. https://doi.org/10.26803/ijlter.20.10.12
- Maulana, H.A. (2021). Persepsi mahasiswa terhadap pembelajaran daring di pendidikan tinggi vokasi: Studi perbandingan antara penggunaan Google Classroom dan Zoom Meeting (Student perceptions of online learning in vocational high education: A comparative study between the use of Google Classroom and Zoom Meeting). *Edukatif : Jurnal Ilmu Pendidikan*, 3(1), 188–195. https://doi.org/10.31004/edukatif.v3i1.259
- Mertens, D.M. (2010). Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods. Sage Publications.
- Movassaghi, C.S., Perrotta, K.A., Yang, H., Iyer, R., Cheng, X., Dagher, M., . . . Andrews, A.M. (2021). Simultaneous serotonin and dopamine monitoring across timescales by rapid pulse voltammetry with partial least squares regression. *Analytical and Bioanalytical Chemistry*, *413*(27), 6747–6767. https://doi.org/10.1007/s00216-021-03665-1
- Mukminin, A. & Habibi, A. (2019). Promoting Access and Success for Disadvantaged Students in Indonesian Basic Education: Social Justice in Education. In S. Wisdom, L. Leavitt, & C. Bice (Eds.), *Handbook of Research on Social Inequality and Education* (pp. 403–413). IGI Global. https://doi.org/10.4018/978-1-5225-9108-5.ch022
- Mukminin, A., Habibi, A., Muhaimin, M., & Hidayat, M. (2023). Social media use for english writing (SMU-EW): Preservice english teachers. *Ampersand*, 10. doi: 10.1016/j.amper.2023.100112
- Mukminin, A., Habibi, A., Muhaimin, M., & L. D. Prasojo, L.D. (2020). Exploring the Drivers Predicting Behavioral Intention to Use m-Learning Management System: Partial Least Square Structural Equation Model. *IEEE Access*, 8, 181356–181365. doi: 10.1 109/ACCESS.2020.3028474
- Mukminin, A., Muhaimin, M., Prasojo, L.D., Khaeruddin, K., Habibi, A., Marzulina, L., & Harto, K. (2022). Analyzing social media use in tefl via the technology acceptance model in Indonesian higher education during the covid-19 pandemic. *Teaching English with Technology*, (1), 3–22.
- Naeim, M., Mohammadi, M., Masoumi, N., & Kamran, A. (2022). Prediction of academic performance based on learning style and critical thinking among medical students. *Journal of Pedagogical Research*, 6(1), 57–66. https://doi.org/10.33902/jpr.2022175483
- Nurleni, S., Nadar, W., & Pawitri, A. (2021). Pengaruh keterlibatan orang tua dengan prestasi belajar siswa pada masa pandemi Covid-19 (The effect of parental involvement on student achievement during the Covid-19 pandemic). *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara III SEMNARA 2021*, pp. 9–15.
- Özüdoğru, G. (2022). Preservice teachers e-learning styles and attitudes toward e-learning. *Inquiry in Education*, *14*(1), 1–15.
- Pimlott-Wilson, H., & Holloway, S.L. (2021). Supplementary education and the coronavirus pandemic: Economic vitality, business spatiality and societal value in the private tuition industry during the first wave of Covid-19 in England. *Geoforum*, 127, 71–80. https://doi.org/10.1016/j.geoforum.2021.09.009
- Renfrew, M.E., Morton, D.P., Morton, J.K., Hinze, J.S., Beamish, P.J., Przybylko, G., & Craig, B.A. (2020). A web- And mobile app-based mental health promotion intervention comparing email, short message service, and videoconferencing support for a healthy cohort: Randomized comparative study. *Journal of Medical Internet Research*, 22(1). https://doi.org/10.2196/15592
- Sanz, N.M., Urías, M.D.V, Salgado, L.N., Benítez, N.V, & Martínez, M.C.V. (2022). Educate to transform: An innovative experience for faculty training. *Education and Information Technologies*, pp. 1–23. https://doi.org/10.1007/s10639-022-11160-y
- Schijns, J.M.C. (2021). Measuring service quality at an online university: Using PLS-SEM with archival data. *Tertiary Education and Management*, 27(2), 161–185. https://doi.org/10.1007/s11233-021-09071-7

- Sun, X. (2021). Differentiated instruction in L2 teaching: Two extensive reading programmes conducted during Covid-19 pandemic. *Innovation in Language Learning and Teaching*, pp. 1–14. https://doi.org/10.1080/17501229.2021.1979985
- Surahman, E., Santaria, R., & Setiawan, E.I. (2020). Tantangan pembelajaran daring di Indonesia (Challenges of online learning in Indonesia). *Journal of Islamic Education Management*, 5(2), 94–95.
- Susanti, N., Hadiyanto, & Mukminin, A. (2022). The effects of TPACK instrument variables on teacher candidates in higher education. *Journal of Higher Education Theory and Practice*, 22(2), 107–115. doi: 10.33423/jhetp.v22i2.5041
- Utami, E.W. (2020). Kendala dan peran orangtua dalam pembelajaran daring pada masa pandemi Covid-19 (Obstacles and the role of parents in online learning during the Covid-19 pandemic). *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)*, *3*(1), 471–479.
- Velasco, E.V., Ibarra, F.P., & Mukminin, A. (2022). The readiness on the implementation of the special program for information and communication technology. *Journal of Higher Education Theory* and Practice, 22(3), 79–89. doi: 10.33423/jhetp.v22i3.5083
- Wandini, A.S., & Lubis, F.Y. (2021). Pelaksanaan evaluasi pembelajaran secara daring pada belajar dari rumah (BDR) jenjang sekolah menengah pertama (SMP) (Implementation of online learning evaluation on learning from home (BDR) for junior high school (SMP) level). Jurnal Basicedu, 5(4), 1985–1997.
- Wei, Z., Li, Q., Zhu, K., Zhou, J., Zou, L., JiangroleMember, Y., & XiaoroleMember, X. (2022). DiffTREAT: Differentiated traffic scheduling based on RNN in data centers. *IEEE Transactions* on Cloud Computing, pp. 1–13. https://doi.org/10.1109/TCC.2022.3206593
- Wekke, I. S., & Hamid, S. (2013). Technology on language teaching and learning: A research on Indonesian pesantren. *Procedia - Social and Behavioral Sciences*, 83, 585–589. https://doi.org/10.1016/j.sbspro.2013.06.111
- Xu, J. (2022). A profile analysis of online assignment motivation: Combining achievement goal and expectancy-value perspectives. *Computers and Education*, 177. https://doi.org/10.1016/j.compedu.2021.104367
- Yulianti, K., & Mukminin, A. (2021). Teaching and learning during COVID-19 pandemic: A qualitative study on elementary school teachers in Indonesia. *Qualitative Report*, 26(12), 3900–3910. doi:10.46743/2160-3715/2021.5079
- Zanotto, L., Ferreira, B.M., & Alves, F.D. (2020). The moviment body language and children education: A playful formative experience [A linguagem corporal de movimento e a educação infantil: Uma experiência lúdico-formativa]. *Revista Conhecimento Online*, *1*, 49–69. https://doi.org/10.25112/RCO.V1I0.1771