

Online learning during the covid-19 pandemic: How is it implemented in elementary schools?

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Abstract: The Covid-19 pandemic that occurred forced the learning process to be carried out online or online learning. This study aims to analyze the opportunities and challenges of teachers and students who carry out the online learning process during the Covid-19 pandemic. This research uses a qualitative approach with a case study type. The subjects of this research were class teachers and grade IV elementary school students. The sampling technique used was purposive random sampling. Data collection techniques used interviews and documentation. The data obtained in this study were qualitative data which were analyzed using data triangulation techniques. The results showed that teachers and students got several opportunities and challenges implementing the online learning process during the Covid-19 pandemic. The opportunities for elementary school teachers and students are (1) Technology ability, (2) more accessible learning, (3) expanding learning references. Meanwhile, the challenges faced by elementary school teachers and students in online learning during the Covid-19 pandemic were (1) difficulty achieving learning objectives, (2) network disruption, (3) high cost.

Keywords: Covid-19 Pandemic, Online Learning, Elementary School.

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INTRODUCTION

Learning aims to form individuals who have broad insights, shape attitudes and personalities, and skills (Santrock, 2011). The knowledge, attitudes, and skills obtained from the learning process will be the individual's capital to live life. To achieve these goals, there is an interaction between students and teachers during the knowledge transformation process including social, emotional, and psychological interactions (Wolfolk, 2016). Interactions formed effectively in the learning process can play a significant role in helping to improve students' motivation and mentality (Dasopang, Erawadi, Lubis, & Hasibuan, 2020). More, Sulfemi (2019) states that learning objectives will be achieved if and only if teachers can create effective learning; therefore teachers must have competence in carrying out their profession as teachers.

4 competencies must be possessed by a teacher in carrying out his profession, namely (1) professional competence; (2) pedagogic competence; (3) social competence; and (4) personality competence (Ismail, 2010; Pianda, 2018). Professional competence is related to how a teacher can master the science that is his family or field. For example, mathematics teachers must master the science of mathematics, so that the process of transferring mathematics learning information from teachers to students in learning can take place effectively and adequately. Pedagogic competence is related to the ability of teachers to teach their knowledge to students in the learning process. Teachers who have good pedagogic skills will use various ways to create effective and fun learning (Darmadi, 2016). Efforts that teachers can use to create practical and fun learning include the use of varied learning models (Lubis, 2019), the use of learning media (Lubis & Wangid, 2019), and so forth. Furthermore, social skills relate to how the teacher can perform good social interactions when carrying out the learning process. The teacher's social skills will greatly impact the formation of effective learning (Nisbet & Shucksmith, 2017). Finally, personality competence is related to how a teacher has an exemplary attitude in himself. The exemplary attitude of the teacher will be a significant capital in carrying out her/his role as a teacher who will be emulated by students and also plays a role in facilitating the formation of students' character or attitudes (Yunianto, Suyadi, & Suherman, 2020). These competencies will be applied by teachers in the learning process, including during the learning process in the current era of the industrial revolution 4.0.

Technological developments in the era of the industrial revolution 4.0 have impacted on almost all aspects of life, including the education aspect. The influence of the industrial revolution 4.0 on the education aspect is marked by the emergence of several platforms created to facilitate management in education. One example of the application of technological developments in the educational aspect is forming of a more organized system using management information systems in managing educational institutions, starting from the elementary school level (Rahayu, 2015) to university level management (Ulinafiah & Wiyani, 2019). Another example of the application of technology in education is the use of technology-based media in learning that can facilitate the achievement of learning objectives (Lubis & Dasopang, 2020). Technological developments also help teachers in the learning evaluation process by using various applications to make it easier for teachers (Fadhilaturrahmi & Ananda, 2018). Furthermore, technological developments have also led to the formation of distance learning or web-based online learning (Jolliffe, Ritter, & Stevens, 2012). This website-based learning aims to facilitate and expand learning references because the learning process can be carried out anywhere and anytime (Wuryaningsih, Susilastuti, Darwin, & Pierewan, 2019).

Online Learning (On the Network) is learning carried out by utilizing the internet network (Sadikin & Hamidah, 2020). Online learning has 4 characteristics, namely (1) interactive; (2) independent; (3) accessibility; and (4) enrichment (Bilfaqih & Qomarudin, 2015). Online learning that is carried out with the help of websites and internet connectivity must be carried out interactively to create a reciprocal relationship or positive interaction between teachers and students during learning (Syarifudin, 2020). In

addition, online learning allows students to learn independently through content that has been compiled on the platform used or developed. Furthermore, online learning must also allow students to access and follow the learning process flexibly in time and location (Chiu & Wang, 2008). The flexibility in online learning will make it easier for students to follow the lesson and access learning references, so that learning objectives will be easier to achieve. The potential of online learning makes online learning considered one of the media that can help teachers improve student learning outcomes (Karabatak & Turhan, 2017). Online learning is an solution taken by the Indonesian government for education aspect during the Covid-19 pandemic (Chaterine, 2020).

Covid-19 (Corona Virus Disease-19) is a deadly virus that is a new variant of the Sars virus (Sars-CoV-2) which first appeared in Wuhan, China, in December 2019. This virus causes pneumonia-like effects (Daniel, 2020). The spread of this deadly virus has become a global pandemic. Indonesia recorded its first case in March 2020 and now (update January 25, 2021), positive cases in Indonesia were recorded at 989,262 cases, with 27,835 of them declared dead (Task Task Force, 2021). The increase in cases has continued to increase every day since the first case has made the Indonesian government take a policy since implementing Large-Scale Social Restrictions (PSBB) in April 2020 (Azanella, 2020). These restrictions apply to almost all aspects, including the education aspect. The policy makes the learning process that initially took place face-to-face in the classroom into distance- learning or online with the help of websites and internet connections. Although Indonesia has now entered the "New Normal" era, education services are still taking place online and face-to-face meetings are not allowed to reduce the number of victims exposed to the Covid-19 virus. This Online Learning applies to all educational institutions, including primary school level educational institutions.

Elementary school students are in the age range of 7-12 years. Judging from cognitive development, children at this age are in the concrete operational stage (Joubish & Khurram, 2011). Children have difficulty identifying or analyzing abstract objects at this stage, so they need media that can help them visualize concretely. Furthermore, elementary school students currently fall into the generation Z generation category (Mohr & Mohr, 2017). Generation Z lives in a time of technological development, so their lives are very close to technological developments (Csobanka, 2016). Their proximity to technology becomes a potential that can be actualized to help the effectiveness of the implementation of online learning. This is because students will quickly understand the procedure for using the website as an online learning platform. However, the teacher's control as a manager in online learning must still be considered to get practical online learning and achieve learning objectives.

Various studies on online learning during the Covid-19 pandemic in Indonesia have been carried out. However, the studies that have been conducted tend to focus on two aspects, namely the effectiveness of online learning during the Covid-19 pandemic (Khusniyah & Hakim, 2019; Kuntarto, 2017) and aspects of obstacles obtained during the online learning process during the Covid-19 pandemic (Putria, Maula, & Uswatun, 2020). Another study that raised the topic of online learning during the Covid-19 pandemic was research conducted by Astini (2020) and Indrawati (2020) which examines the opportunities and challenges of implementing online learning in universities during the Covid-19 pandemic. Research conducted by Jamilah (2020) also examines the opportunities and challenges of professional teachers when implementing online learning. No specific research examines the opportunities and challenges faced by teachers and students in primary schools during online learning during the Covid-19 pandemic. This study analyses the opportunities and challenges faced by elementary school teachers and students in online learning during the Covid-19 pandemic. Determining the scope of research in elementary schools based on education at the elementary school level is very important to research because elementary school is the initial foundation for continuing student education.

METHOD

Research design

This study uses a qualitative approach. The type of research used is case study research. This study analyses the opportunities and challenges those teachers and students encounter when implementing online learning during the Covid-19 pandemic at the elementary school level. The following presents the research design used.



FIGURE 1. *Research design*

Research subject

This research was conducted in the city of Padangsidempuan, North Sumatra Province, Indonesia. The subjects of this study were teacher and students of fourth-grade elementary school. There were 5 teachers and 5 students involved in this study. Determination of the subject of this study was carried out using the purposive random sampling technique. The teachers who were used as research subjects were teachers who teach fourth grade and run online learning during this Covid-19 Pandemic. In addition, the class teachers involved are teachers with at least 10 years of teaching experience. The determination of these criteria is to fulfill the needs of research data because this research requires data from teachers who have run online learning. Besides, the students also from fourth grade of elementary school and have participated in online learning. The following **Table 1** presents the subject of this research.

TABLE 1. *Research subjects*

| Name | Age | Teaching experience | Status | Information |
|----------|--------------|---------------------|---------|-------------|
| IK (LK) | 45 years old | 13 years old | Teacher | Subject 1 |
| NBT (Pr) | 37 years old | 10 years | Teacher | Subject 2 |
| NHB (Pr) | 42 years old | 11 years old | Teacher | Subject 3 |
| LHL (Pr) | 53 years old | 21 years | Teacher | Subject 4 |
| DHS (Lk) | 45 years old | 17 years | Teacher | Subject 5 |
| HSL (Lk) | 10 years | - | Student | Subject 6 |
| SKW (Pr) | 10 years | - | Student | Subject 7 |
| RI (LK) | 10 years | - | Student | Subject 8 |
| SA (LK) | 10 years | - | Student | Subject 9 |
| RAS (Pr) | 10 years | - | Student | Subject 10 |

Research procedure

This research was conducted in July-August 2020 in the city of Padangsidempuan. The implementation of this research went through several procedures, including: (1) determining the appropriate research informants, namely fourth grade elementary school teachers who were selected by purposive random sampling technique; (2) conducting interviews about the implementation of online learning during the Covid-19 pandemic at

the elementary school level; (3) observing the document of student learning outcomes in offline learning before the Covid-19 pandemic and online during the Covid-19 pandemic; (4) grouping the data obtained; (5) analyze data from interviews and documentation obtained; (6) draw research conclusions.

Data collection technique

Data collection techniques used are interviews and documentation. Interview techniques are used to obtain information about the opportunities and challenges obtained by teachers and students in undergoing the online learning process during the Covid-19 pandemic. Documentation techniques are used to obtain data on student learning outcomes during face-to-face learning in offline and online learning. The data obtained is qualitative data which is analyzed by data triangulation technique. The following **Table 2** presents the interview instrument grid in this study.

TABLE 2. *Grid of Interview Instruments*

| Aspect | Indicator | Item Number |
|-------------------------------|--|-------------|
| Online Learning Opportunities | Efficiency of the implementation of online learning | 1, 2, 3 |
| | Effectiveness of the implementation of online learning | 4, 5, 6, 7 |
| | Increased competence obtained | 8, 9 |
| | Implementation of the learning process | 10, 11, 12 |
| Online Learning Challenge | Learning preparation | 13, 14, 15 |
| | Cost | 16, 17 |
| | Connectivity | 18, 19 |
| | Learning evaluation | 20, 21, 22 |

Data analysis technique

The research data obtained were analyzed by the triangulation data sources technique (class teachers and students) and triangulation of methods (interviews and documentation). Data analysis in this study went through several stages, namely (1) Collecting interview data about the use of online learning systems during the Covid-19 pandemic from all informants in the form of information on opportunities and challenges faced by teachers and elementary school students; (2) Presenting the data obtained from all informants in the form of a description table; (3) Analyzing and reducing data by comparing the data obtained to find opportunities and challenges faced by teachers in implementing online learning during the Covid-19 pandemic in elementary schools; and (4) Draw a research conclusion. Furthermore, in the data analysis process, a process is carried out to compare the data obtained from interviews with class teachers and students with data obtained from the results of documenting student learning outcomes. The triangulation process continues until the results can be used as references that consistently answer research questions. If the data is still inconsistent and conclusions cannot be drawn, the triangulation process will continue to be carried out repeatedly until the data obtained are consistent. The triangulation process continues until the results can be used as references that consistently answer research questions.

RESULT

Online Learning Opportunities

This study indicates that there are several opportunities and challenges faced by teachers and students when carrying out the online learning process during the Covid-19 pandemic. Based on the research results, there are 3 opportunities found, namely (1) the ability to use technology was increasing; (2) The implementation of the learning process

was easier; and (3) Teachers and students were easy to expand references that can help in achieving learning objectives.

Improved Technological Capability

The first opportunity perceived by teachers and students is the increased ability of information technology. Based on interviews with classroom teachers, online learning requires teachers to use online learning platforms, both paid and free platforms available on the internet. Based on the information obtained, almost all schools in Padangsidempuan use the Google Classroom platform as an online learning platform. The reason teachers choose Google Classroom as an online learning platform is because the use of Google Classroom is considered more accessible and can be accessed for free. Both reasons are very suitable for teachers at the elementary school level, especially for senior teachers with low technological abilities.

"So far we have only used Google Classroom because its use is easy for all teachers to understand, including senior teachers. In addition, the use of Google Classroom is also free, so it is not too burdensome for teachers. At least it comes out at the cost of internet quota only" (Interview 1. IK. 9 October 2020).

Furthermore, in an effort to optimize and streamline the use of Google Classroom as a learning platform during the Covid-19 pandemic, a good understanding of information technology is needed. Interview information shows that elementary school teachers Padangsidempuan are still dominated by senior teachers with low information technology skills. Therefore, the Padangsidempuan education office provides training on the use of information technology and Google Classroom platform to all elementary school teachers in Padangsidempuan. The training is carried out to get the effectiveness of the training.

The workshop provided by the Padangsidempuan government was not enough to be used for teachers in implementing online learning. Teachers need to deepen the material about the online learning procedures. It requires teachers to bring out their abilities, creativity, and innovation in developing online learning platforms. This process increases the teacher's understanding of technology. On the other hand, the increase in technological ability does not only happen to teachers, students also get this impact. Information obtained from interviews with classroom teachers shows that online learning makes students have to understand the material presented and operate the platform used by the teacher in the online learning. This makes students have to be able to operate the platform used by the teacher.

"The training provided to teachers is not enough, so teachers continue to search references and learn self-taught as well as discussions with other teachers regarding the use of the Google Classroom platform. It can't be helped, because the situation does force us to be like that, rather than later our students will become victims. Well, the positive thing is that the teachers' understanding of IT is increasing, Alhamdulillah."(Interview 2. NBT. 12 October 2020)

The teacher also provides training to students in using the platform, so the learning process through online learning can implemented effectively without reducing the meaning of learning gained face-to-face. The results of interviews with students confirmed the information that the students felt that their ability using technology in their daily lives increased after participating online learning process. Students' technological ability increases due to several things, namely (1) students must understand the procedures for using the platform used by teachers in online learning; (2) students must understand how to find references that can support online learning; (3) students must understand how to make assignments using Ms. Offices.

The results of the documentation carried out on the e-learning platform shows that online learning takes place effectively. Teachers and students carry out their duties and functions maximal. The teacher delivers the material, facilitates learning, gives assignments, and makes evaluations. On the other hand, students conduct discussions and respond to what the teacher or presenters from other groups present during the discussion until students send assignments to the e-learning platform. It clearly shows that teachers and students have developed the ability to master information technology because online learning takes place effectively with an adequate understanding of information technology.

A More Accessible Learning Process

In addition, online learning also raises other opportunities, namely a more accessible learning process. From the teacher's perspective, the interview results show that teachers were easier to learn. Online learning using the Google Classroom platform only requires an internet connection to access it; therefore, IT can be carried out anywhere as long as an internet connection is available. Thus, the teacher does not need to access it in a specific location (e.g., at a school) to carry out learning to occur.

"...We, teachers find easier to use Google Classroom, the important thing is that it is connected to the internet, so you can do it at home, you don't have to go to school..."(Interview 3. NHB. 15 October 2020)

From the student's perspective, students also find it easier to follow the learning process. With several students' interviews, students participated easily in online learning because they can access learning materials even from home. In addition, students also revealed that online learning also allows them to access and repeat material at any time because the material will always be available on the platform provided by the teacher in online learning.

"Yes, we can learn from home using a home computer. So it's easy, then we can also read and read the material in Google Classroom whenever we want." (Interview 6. HSL. 16 October 2020)

Furthermore, from a shared interest perspective, online learning also creates a sense of security for teachers and students. The results of interviews with teachers and students showed that both teachers and students felt safe while conducting the online learning process during the Covid-19 pandemic. This is because online learning is suitable media to prevent the spread of the Covid-19 virus. Thus, online learning is considered to facilitate the implementation of learning because both teachers and students feel safe and comfortable.

Easy Reference Expansion

The results of this study also indicate that there are opportunities that arise from the implementation of online learning, increasing technological capabilities and facilitating both teacher and students in online learning. This is in under teacher's statement which states that online learning can facilitate them to integrate learning materials with various references available on the internet. On the other hand, students also feel similar way. Students find it easier to understand the material presented because they can easily get additional or supporting references from the internet.

"... Of course, we teachers and students can obtain or expand references related to learning materials, because on the internet there are many supporting materials that can be used as references by both us teachers and students" (Interview 1. IK. 9 October 2020).

Furthermore, the information obtained from the teacher stated that it was easier for students to understand and answer questions regarding the material presented because they can access many references that could help them understand the learning material. Documentation results from student daily test scores data indicate a significant increase in student scores between before online learning and after online learning. This clearly shows that online learning is an auspicious opportunity to create effective learning.

Online Learning Challenge

Online learning has some positive impacts during the current Covid-19 pandemic. However, it is undeniable that online learning also has a negative impact in several aspects. This study indicates that there are several negative impacts of the implementation of online learning, which is a challenge for teachers and elementary school students. Based on the results of this study, 3 things are a challenge for teachers in implementing online learning during the Covid-19 pandemic, namely (1) the difficulty of teachers and students in achieving learning objectives; (2) Connections in some areas are unstable; and (3) Internet quota fee. The three aspects that become challenges interfere with the effectiveness of online learning during the Covid-19 pandemic.

The Difficulty of Achieving Learning Goals

The first challenge is the difficulty in achieving the learning objectives. The teacher revealed that implementing online learning is challenging to achieve the targeted learning objectives. Although students can easily understand the learning material delivered through the e-learning platform, they can get comprehensive and varied references to master the material presented. However, the teacher explained that the learning objectives were not only limited to providing students' understanding of the material presented.

"Basically, yes, they can quickly understand the material being taught, but the problem is that the learning objectives are not only that (the realm of knowledge-ed.) but also attitudes and skills that must be formed by the teacher through the learning process. Well, this is what then becomes our obstacle in this online learning. It's hard because I can't see you in person."(Interview 5. DHS. 21 October 2020)

The teacher mentioned that the learning objectives' design targets 3 things: knowledge, attitudes, and skills. When students can master the material presented, only one learning goal is fulfilled, namely cognitive. It means that there are still two more areas that must be met to achieve the overall learning objectives. The two domains are the domain of affective and psychomotor.

Furthermore, the teacher explains that student attitudes and skills are crucial to fulfilling, but online learning limits efforts to achieve this. Teachers have difficulty evaluating student attitudes and skills because of the limited direct interaction between teachers and students. It is feared that the difficulty of achieving the learning objectives will impact two things, namely (1) the low character or personality of students; (2) the lack of student skills that can be used as soft skills for students in everyday life. Thus, it will trigger a negative impact on student education.

Connection or Network

The next challenge from the online learning process felt by teachers and students is the connection or network disruption. The interviews with teachers showed that teachers stated that network disturbances were often an obstacle in the online learning process. The average network disruption occurs in students who access online learning from suburban areas. Also, the problem happens when the weather is unfavorable or a power failure during the online learning process.

"Many of our students also live-in suburban areas, so network problems are often disturbed. Then sometimes if it rains or there is a power outage, it will also disrupt the connection. If the connection is interrupted, it will be difficult to carry out online learning."(Interview 4. LHL. 2 November 2020)

Documentation results from student data indicate that several students come from suburban areas. Furthermore, interviews with teachers also show that teachers and students also feel network disturbances due to unstable connections from several providers. The teacher stated that the instability of connection was also the cause of the disruption of the online learning process. It is because online learning depends entirely on the stability of the internet connection. Disruption of the implementation of online learning will undoubtedly impact the disruption of efforts to achieve learning objectives.

Cost

The third challenge that teachers and students feel is budget or the cost of daily needs, which is increasing. The teacher stated that online learning significantly impacts the need for a monthly internet quota. This difference can be seen from before online learning, the teacher's internet quota requirement is around 10 GB, but after online learning, the teacher needs around 20 GB to 30 GB per month. This will have an impact on teachers, especially since some teachers are still on honorary status. Temporary staff tend to have difficulty meeting the internet quota for the online learning process due to insufficient income.

"Obviously what is most noticeable is for teachers who are honorary, because we know for ourselves how their income as honorary teachers are, for primary needs, the wealth is still mediocre, not to mention they have to allocate to buy internet quota..."(Interview 5. DHS. 21 October 2020)

On the other hand, students also feel the same way. Students said that their parents had difficulty meeting their internet quota needs. Furthermore, the teacher confirmed the statement from the results of the student interviews. The teacher said that some parents have low incomes, they will automatically be overwhelmed to meet their children's internet quota needs. This is undoubtedly a problem and challenge for teachers and students to implement the online learning process.

DISCUSSION

The first opportunity obtained by teachers and students in online learning is the increase in the technological capabilities of teachers and students. It is under the findings of Yunitasari & Hanifah (2020) which states that the application of online learning can motivate and develop the technology, information, and communication skills of teachers and students. Teachers and students must master these technological capabilities to obtain effective online learning (Cidral, Oliveira, Di Felice, & Aparicio, 2018). Furthermore, online learning that utilizes the E-Learning platform requires teachers to master the

platform's procedures, such as how to upload materials, assignments, daily tests, to semester exams through the platform used (Al-Fraihat, Joy, & Sinclair, 2020). One of the E-Learning platforms that teachers most often use is Google Classroom because the use of the platform is considered more effective and efficient for novice users such as teachers and students in elementary schools (Maskar & Wulantina, 2019). On the other hand, students must also be able to operate the E-Learning platform used by teachers in online learning. Students must be able to carry out discussions, do assignments, and take online exams in online learning; this, of course requires students to deepen and develop their technology, information and communication skills (Salloum, Al-Emran, Shaalan, & Tarhini, 2019). Further, Salloum, Alhamad, Al-Emran, Monem, & Shaalan (2019) stated that students' technological abilities increased in online learning through the experience of operating the E-Learning platform, operating the device operating system in doing assignments, and exploiting references with the help of the internet network. It shows that online learning can help teachers and students develop their technology, information and communication skills.

Online learning is easy to use both by teachers and students in learning. This is because teachers and students can access online learning platforms anywhere (Wan & Niu, 2018). From the teacher's perspective, online learning allows teachers to facilitate learning from outside the school environment because the E-Learning platform for online learning can be accessed from all locations with an internet connection (Sjukur, 2012). From the student's perspective, online learning can facilitate them to access and repeat learning materials from anywhere and anytime because the materials delivered by the teacher will be stored on the E-Learning platform which used and will remain accessible to students repeatedly (Oktavian & Aldya, 2020). Furthermore, online learning can help teachers and students to create a sense of security and comfort in carrying out the learning process during the Covid-19 pandemic (Ferry & Jährir, 2020). Online learning that can be accessed from various locations can control the transmission of the Covid-19 virus in Clusters of educational institutions (Wahjono, 2020). This can create a sense of security and comfort for teachers and students from transmitting of the Covid-19 virus during the learning process. Maslow's Theory (D'Souza & Gurin, 2016) revealed that a sense of security and comfort during the learning process is a condition that must be met to achieve a learning goal.

By implementing online learning, both teacher and students obtain more learning references. It is because online learning allows teachers and students to find learning references (Mustakim, 2020). Various references can help teachers to develop learning materials (Tran, Nguyen, Van De, Soryaly, & Doan, 2019). Furthermore, various references can also help students to understand the material presented by the teacher and the material discussed during the discussion process of online learning materials (Silalahi & Hutauruk, 2020). This is because the online learning system connects to the internet network, allowing students to access various references from various sources such as scientific articles and books from the E-Library (Drozдова & Guseva, 2017). References that are integrated with learning materials will enrich and broaden students' insight and understanding of the material presented (Murniayudi, Mustadi, & Jerusalem, 2018).

Online learning that is carried out online using the E-learning platform has a positive and negative impact on the sustainability of the learning process (Simatupang, Sitohang, Situmorang, & Simatupang, 2020). One of the negative impacts that challenge teachers and students in online learning is achieving learning objectives. The difficulty in achieving these learning objectives is reduced student focus, misuse of gadgets, and lack of direct interaction between teachers and students (Word & Grace, 2020). Direct interaction between teachers and students is essential because it will affect the psychology of students (Yulianti, Djatmika, & Santoso, 2017). Online learning does promise convenience for students to understand the material presented, but two learning objectives will be difficult to achieve, namely student attitudes and skills (Hamdani & Priatna, 2020).

The learning process has three goals: increasing knowledge, developing good attitudes, and training students' skills (Laksono, Ariyanti, & Santoso, 2016). Online learning raises the potential difficulty of developing student attitudes due to the obstruction of direct interaction between teachers and students in the learning process. Direct interaction between teachers and students in a learning process can lead to emotional relationships that can help in shaping students' character (Sudrajat, 2011). Furthermore, the teacher is a role model for students in attitude learning (Ramdan & Fauziah, 2019). However, the limited interaction between teachers and students in online learning challenges shaping students' character and character building. Also, online learning difficult to allows teachers to train students' skills because some skills training implementation processes require direct interaction between teachers and students (O'Connor, Dearing, & Collins, 2011).

Internet connection or network is a requirement in accessing or operating the E-Learning platform used in online learning (Indrayana & Sadikin, 2020). However, internet network disruption is a challenge for teachers and elementary school students who live in areas far from the city (Rosdiyani, 2020). An unstable network disrupts accessing the E-Learning platform, making learning ineffective (Alqahtani & Rajkhan, 2020). Online learning will occur effectively when the internet connection is running stably because all access to the platform must use the internet network (Dhawan, 2020). More, Rana & Lal (2014) state that students who experience network problems will find difficulty accessing all existing systems in the E-Learning used; for example, students have difficulty understanding the material, doing assignments, and participating in discussions online learning. It makes online learning ineffective and inefficient.

The application of online learning using the E-Learning platform has become a challenge for teachers and elementary school students. The challenge that arises is the increasing cost of meeting internet quotas (Hikmatiar, Sulisworo, & Wahyuni, 2020). The internet is a media that is needed in carrying out the online learning process. The increasing need for internet quotas to run online learning makes the expenditure of funds increase (Helmi, 2020). The Covid-19 pandemic, which is still unfinished, has an impact on health and impacts the weakening of the economic condition of the community and even nationally (Hadiwardoyo, 2020). The weakness of the community's economy creates an inverse comparison with the application of online learning, which requires money to buy an internet quota. It is a challenge for teachers and students in carrying out online learning during the Covid-19 pandemic.

CONCLUSION

Online learning during the Covid-19 pandemic has impacted the form of opportunities and challenges for teachers and students. Opportunities obtained by teachers and students are (1) it increases information technology capabilities; (2) the learning process is more straightforward because it can be carried out anytime and anywhere; (3) it can expand learning references through internet-based media. Meanwhile, the challenges faced by teachers and students in online learning are (1) difficulty in achieving learning objectives; (2) network disturbances that can interfere with the effectiveness of the Online learning process; (3) the cost of online learning is expensive.

This research has only reached the stage of analyzing the opportunities and challenges experienced by teachers in carrying out the online learning process during the Covid-19 pandemic. There is a need to do further research to examine how significant the influence of each of the opportunities and challenges described in the results of this study is in an experimental study. Furthermore, the results of this study can also be used as a reference in the development of further online learning.

REFERENCES

1. Al-Fraihat, D., Joy, M., & Sinclair, J. (2020). Evaluating E-learning Systems Success: An Empirical Study. *Computers in Human Behavior, 102*, 67–86.
2. Alqahtani, A.Y., & Rajkhan, A.A. (2020). E-learning Critical Success Factors during The Covid-19 Pandemic: A Comprehensive Analysis of E-learning Managerial Perspectives. *Education Sciences, 10*(9), 1–16.
3. Astini, NKS (2020). Challenges and Opportunities for Utilizing Information Technology in Online Learning during the Covid-19 Period. *Cetta: Journal of Educational Sciences, 3*(2), 241–255.
4. Azanella, L.A. (2020). *9 Regions in Indonesia that Implement PSBB due to the Corona Virus*. Retrieved from <https://www.kompas.com/tren/read/2020/04/13/080408865/9-region-di-indonesia-yang-apply-psbb-karena-virus-corona?page=all>
5. Bilfaqih, Y., & Qomarudin, M.N. (2015). *Essence of Preparation of Online Learning Materials*. Yogyakarta: Depublish.
6. Catherine, R.N. (2020). *School Closed to Prevent Corona, Nadiem Implements Online Learning System*. Retrieved January 25, 2020, from <https://news.detik.com/berita/d-4943637/school-diliburkan-Prevent-corona-nadiem-berlaku-sistem-belajar-online>
7. Chiu, C.M., & Wang, E.T.G. (2008). Understanding Web-based Learning Continuance Intention: The Role of Subjective Task Value. *Information & Management, 45*(3), 194–201.
8. Cidral, W.A., Oliveira, T., Di Felice, M., & Aparicio, M. (2018). E-Learning Success Determinants: Brazilian Empirical Study. *Computers & Education, 122*, 273–290.
9. Csobanka, Z.E. (2016). The Z Generation. *Acta Technologica Dubnicae, 6*(2), 63–76. <https://doi.org/10.1515/atd-2016-0012>
10. D'Souza, J., & Gurin, M. (2016). The Universal Significance of Maslow's Concept of Self-Actualization. *The Humanistic Psychologist, 44*(2), 210.
11. Daniel, J. (2020). Education and The COVID-19 Pandemic. *Prospects, 49*(1), 91–96.
12. Darmadi, H. (2016). Duties, Roles, Competencies, and Responsibilities of Professional Teachers. *Education: Journal of Education, 13*(2), 161–174. <https://doi.org/10.31571/EDUKASI.V13I2.113>
13. Dasopang, M.D., Erawadi, A.S., Lubis, A.A., & Hasibuan, H. (2020). Analysis of Students' Mental Health after Terror Cases in Indonesia. *Systematic Reviews in Pharmacy, 11*(2), 939–943.
14. Dhawan, S. (2020). Online Learning: A Panacea in The Time of COVID-19 Crisis. *Journal of Educational Technology Systems, 49*(1), 5–22.
15. Drozdova, A.A., & Guseva, A.I. (2017). Modern Technologies of E-learning and its Evaluation of Efficiency. *Procedia-Social and Behavioral Sciences, 237*, 1032–1038.
16. Fadhilaturrahmi, F., & Ananda, R. (2018). Evaluation of Social Studies Learning Based on Two-Dimensional Bloom's Taxonomy in Elementary Schools. *Journal of Basicedu, 1*(2), 12–21.
17. Feri, L., & Jahrir, U.S.A. (2020). Effectiveness of Online Learning in the Midst of the Covid-19 Pandemic, *Panrita: Journal of Regional Language and Literature and Their Learning, 1*(1), 38–42.
18. Firman, F., & Rahayu, S. (2020). Online Learning in the Midst of the Covid-19 Pandemic. *Indonesian Journal of Educational Science (IJES), 2*(2), 81–89.
19. Hadiwardoyo, W. (2020). National Economic Losses Due to the Covid-19 Pandemic. *Baskara: Journal of Business and Entrepreneurship, 2*(2), 83–92.
20. Hamdani, A.R., & Priatna, A. (2020). The Effectiveness of the Implementation of Online Learning (Full Online) in the Covid-19 Pandemic Period at the Elementary School Level in Subang Regency. *Didactic: Scientific Journal of PGSD STKIP Subang, 6*(1), 1–9.
21. Helmi, H. (2020). The Impact of Economic Conditions on Online Learning at SMA

- Negeri 10 Rejang Lebong. *Journal of Aghniya*, 3(2), 255–260.
22. Hikmatiar, H., Sulisworo, D., & Wahyuni, M.E. (2020). Utilization of Google Classroom-Based Learning Management System in Learning. *Journal of Physical Education*, 8(1), 78–86.
 23. Indrawati, B. (2020). Challenges and Opportunities for Higher Education in the Period and Post-Covid-19 Pandemic. *Journal of Scientific Studies*, 1(1), 39–48.
 24. Indrayana, B., & Sadikin, A. (2020). Application of E-Learning in the Industrial Revolution Era 4.0 to Suppress the Spread of COVID-19. *Indonesian Journal of Sport Science and Coaching*, 2(1), 46–55.
 25. Ismail, M.I. (2010). Teacher Performance and Competence in Learning. *Lantern Pendidikan: Journal of Tarbiyah and Teacher Training*, 13(1), 44–63.
 26. Jamilah, J. (2020). Professional Teachers in the New Normal Era: A Review of Opportunities and Challenges in Online Learning. *Premiere Educandum: Jurnal Pendidikan Dasar dan Pembelajaran*, 10(2), 238–247.
 27. Jolliffe, A., Ritter, J., & Stevens, D. (2012). *The Online Learning Handbook: Developing and Using Web-based Learning*. New York: Routledge.
 28. Joubish, M.F., & Khurram, M.A. (2011). Cognitive Development in Jean Piaget's Work and Its Implications for Teachers. *World Applied Sciences Journal*, 12(8), 1260–1265.
 29. Karabatak, S. & Turhan, M. (2017). Effect of Web-Based Problem Based Learning on School Administrators' Self-Efficacy Beliefs and Attitudes Towards Principals' Profession. *Education & Science/Egitim ve Bilim*, 42(191), 1–29.
 30. Khusniyah, N.L. & Hakim, L. (2019). The Effectiveness of Online-Based Learning: An Evidence on English Language Learning. *Journal of Tatsqif*, 17(1), 19–33.
 31. Kuntarto, E. (2017). The Effectiveness of the Online Learning Model in Indonesian Language Lectures in Higher Education. *Indonesian Language Education and Literature*, 3(1), 99–110.
 32. Laksono, Y.S., Ariyanti, G., & Santoso, F.G.I. (2016). The Relationship between Students' Interest in Learning and Students' Mathematics Learning Achievement in STAD Type Cooperative Learning Using Comics. *Journal of Mathematics and Science Education*, 1(2), 60–64.
 33. Lubis, A.H. (2019). Efforts to Improve Learning Outcomes of Elementary School Students through Cooperative Learning Models of Numbered Heads Together Type. *Pedagogic Forum*, 11(2), 127–143.
 34. Lubis, A.H., & Dasopang, M.D. (2020). Development of Augmented Reality-Based Picture Storybooks to Accommodate Generation Z. *Journal of Education: Theory, Research, and Development*, 5(6), 780–791.
 35. Lubis, A.H., & Wangid, M.N. (2019). Augmented Reality-assisted Pictorial Storybook: Media to Enhance Discipline Character of Primary School Students. *Elementary School Pulpit*, 6(1), 11–20. <https://doi.org/10.17509/mimbar-sd.v6i1.16415>
 36. Maskar, S., & Wulantina, E. (2019). Students' Perceptions of the Blended Learning Method with Google Classroom. *Inomatics*, 1(2), 110–121.
 37. Mohr, K.A.J., & Mohr, E.S. (2017). Understanding Generation Z Students to Promote a Contemporary Learning Environment. *Journal on Empowering Teaching Excellence*, 1(1), 83–94. <https://doi.org/10.15142/T3M05T>
 38. Murniayudi, H., Mustadi, A., & Jerusalem, MA (2018). Reciprocal Teaching: A 21st Century Learning Innovation to Improve Concept Understanding of PGSD Students. *Plum. Educ. J. Educator. Fundamentals And Learning*, 8(2), 173–184.
 39. Mustakim, M. (2020). Effectiveness of Online Learning Using Online Media during the Covid-19 Pandemic in Mathematics Subjects. *Al Asma: Journal of Islamic Education*, 2(1), 1–12.
 40. Nisbet, J., & Shucksmith, J. (2017). *Learning Strategies*. New York: Roudledge. <https://doi.org/10.4324/9781315188652>
 41. O'Connor, E.E., Dearing, E., & Collins, B.A. (2011). Teacher-Child Relationship and

- Behavior Problem Trajectories in Elementary School. *American Educational Research Journal*, 48(1), 120–162.
42. Oktavian, R., & Aldya, R.F. (2020). The Effectiveness of Integrated Online Learning in the 4.0 Education Era. *Didactic: Journal of Education and Science*, 20(2), 129–135.
 43. Pianda, D. (2018). *Teacher Performance: Teacher Competence, Work Motivation and Principal Leadership*. CV Jejak Publisher.
 44. Putria, H., Maula, L.H., & Uswatun, D.A. (2020). Analysis of the Online Learning Process during the Covid-19 Pandemic for Elementary School Teachers. *Journal of Basicedu*, 4(4), 861–870.
 45. Rahayu, M. (2015). Implementation of Education Management Standards at Elementary Schools in Ngemplak District, Sleman. *Journal of Educational Science Research*, 8(1), 62–79.
 46. Ramdan, A.Y., & Fauziah, P.Y. (2019). The Role of Parents and Teachers in Developing Character Values for Elementary School Age Children. *Premiere Educandum: Jurnal Pendidikan Dasar dan Pembelajaran*, 9(2), 100–111.
 47. Rana, H., & Lal, M. (2014). E-learning: Issues and Challenges. *International Journal of Computer Applications*, 97(5), 20–24.
 48. Rosdiyani, T. (2020). Installation of an Internet Network based on Wireless Fidelity (WIFI) in Kampung Wangun Cipurut. *ABDIKARYA: Journal of Community Service and Empowerment*, 2(2), 181–191.
 49. Sadikin, A., & Hamidah, A. (2020). Online Learning in the Middle of the Covid-19 Outbreak:(Online Learning in The Middle of The Covid-19 Pandemic). *Biodik*, 6(2), 214–224.
 50. Salloum, S.A., Al-Emran, M., Shaalan, K., & Tarhini, A. (2019). Factors Affecting the E-learning Acceptance: A Case Study from UAE. *Education and Information Technologies*, 24(1), 509–530.
 51. Salloum, S.A., Alhamad, A.Q.M., Al-Emran, M., Monem, A.A., & Shaalan, K. (2019). Exploring Students' Acceptance of E-learning through The Development of A Comprehensive Technology Acceptance Model. *IEEE Access*, 7, 128445–128462.
 52. Santrock, J.W. (2011). *Educational Psychology (5th ed.)*. New York: McGraw-hill companies.
 53. Task Force. (2021). *Covid-19 Distribution Map*. Retrieved from <https://covid19.go.id/peta-sebaran>
 54. Silalahi, T.F., & Hutauruk, A.F. (2020). The Application of Cooperative Learning Model during Online Learning in the Pandemic Period. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(3), 1683–1691.
 55. Simatupang, N.I., Sitohang, S.R.I., Situmorang, A.P., & Simatupang, I.M. (2020). Effectiveness of Online Teaching Implementation during the Covid-19 Pandemic Period with a Simple Survey Method. *Journal of Educational Dynamics*, 13(2), 197–203.
 56. Sjukur, S.B. (2012). The Effect of Blended Learning on Learning Motivation and Student Learning Outcomes at the Vocational High School Level. *Journal of Vocational Education*, 2(3), 368–378.
 57. Sudrajat, A. (2011). Why Character Education? *Character Education*, 1(1), 47–58. <https://doi.org/10.21831/jpk.v1i1.1316>
 58. Sulfemi, W.B. (2019). Application of the Discovery Learning Learning Model Improves Citizenship Education Motivation and Learning Outcomes. *Journal of Pancasila and Citizenship Scientific Rontal*, 5(1), 17–30.
 59. Syarifudin, U.S.A. (2020). Implementation of Online Learning to Improve the Quality of Education as an Impact of the Implementation of Social Distancing. *Journal of Indonesian Language and Literature Education Metalingua*, 5(1), 31–34.
 60. Tran, V.D., Nguyen, T.M.L., Van De, N., Soryaly, C., & Doan, M.N. (2019). Does Cooperative Learning May Enhance the Use of Students' Learning Strategies?

International Journal of Higher Education, 8(4), 79–88.

61. Ulinafiah, D., & Wiyani, N.A. (2019). Creation of Excellent Service through the Implementation of Management Information Systems at the Library of IAIN Purwokerto. *Re-JIEM (Research Journal of Islamic Education Management)*, 2(2), 223–239.
62. Wahjono, W. (2020). The Role of Management of Educational Institutions in Surviving the Covid-19 Pandemic, *Infokam*, 16(2), 149–156.
63. Wan, S., & Niu, Z. (2018). An E-learning Recommendation Approach based on The Self-organization of Learning Resource. *Knowledge-Based Systems*, 160, 71–87.
64. Wolfolk, A. (2016). *Educational Psychology (13th ed.)*. Boston: Pearson Education Inc.
65. Wuryaningsih, W., Susilastuti, D.H., Darwin, M., & Pierewan, A.C. (2019). Effects of Web-Based Learning and F2F Learning on Teachers Achievement in Teacher Training Program in Indonesia. *International Journal of Emerging Technologies in Learning (IJET)*, 14(21), 123–147.
66. Yulianti, S.D., Djatmika, E.T., & Santoso, A. (2017). Cooperation Character Education in Primary School Student Learning in the 2013 Curriculum. *Journal of Social Science Learning Theory and Practice*, 1(1), 33–38.
67. Yunianto, T., Suyadi, S., & Suherman, S. (2020). Pembelajaran Abad 21: Pengaruhnya terhadap Pembentukan Karakter Akhlak melalui Pembelajaran STAD dan PBL dalam Kurikulum 2013. *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 10(2), 203–214.
68. Yunitasari, R., & Hanifah, U. (2020). Pengaruh Pembelajaran Daring terhadap Minat Belajar Siswa pada Masa COVID 19. *Edukatif: Jurnal Ilmu Pendidikan*, 2(3), 232–243.

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