

# How is E-Learning-Based Distance Learning Implemented in Elementary Schools?

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## ARTICLE INFO

### *Keywords:*

E-learning;  
Distance learning;  
Elementary School;  
Social Science Learning

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### *Article history:*

Received 2021-08-10  
Revised 2022-03-15  
Accepted 2022-12-22

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## ABSTRACT

The Covid-19 pandemic has affected learning activities in Indonesia, including the pattern of elementary school learning activities in the region. The teacher conducts learning with a distance learning system and utilizes e-learning. This study aims to describe distance learning on social studies content carried out by teachers and provide information about the obstacles that occur in the implementation of distance learning based on e-learning. This research is qualitative research with a phenomenological type that describes distance learning activities carried out in elementary schools. Collecting data using interviews, observation and documentation. The data analysis technique uses the theoretical steps of Miles, Huberman and Saldana. Based on the results of the interviews, distance learning was successfully implemented by utilizing the Whatsapp application and the teacher-controlled platform. The results show that distance learning can run according to competence and curriculum. There are obstacles in the implementation of learning, namely the limitations of internet signals, adjustment of learning styles based on e-learning and access to learning platforms in the form of mobile phones which are still limited.

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## 1. INTRODUCTION

The Covid-19 pandemic has spread throughout the nation since the beginning of March 2020, necessitating distance learning. This virus has been found as an acute respiratory illness with rapid transmission and a brief incubation period (Zhou et al., 2020). Currently, Indonesia faces a significant difficulty in combating and preventing the spread of the rapidly growing Covid-19 virus, which affects all sectors of life, including schooling.

Learning at all levels of education cannot be done face-to-face which is intended to reduce the risk of Covid-19 transmission (Bdair, 2021). One way to break the chain of transmission of Covid-19 by the Government towards educational institutions is by issuing a policy of learning from home,

through online learning and followed by a policy of eliminating the National Examination (Rusdiana, Sulhan, Arifin, & Kamrudin, 2020). This phenomenon is a learning challenge at all levels of education so there needs to be an approach or innovation in learning that is more effective, especially in social studies learning.

To fulfil the Minister of Education and Culture's circular policy, which calls for educational services or "learning from home" across a wide spectrum (from Early Childhood Education Parks to Higher Education), educational institutions like schools and universities act as the frontline provider of such services (Kemendikbud, 2020). In March of 2020, there were numerous reforms implemented throughout the educational sector. In the midst of the Covid-19 epidemic, face-to-face instruction is not possible. As a result of geographical and cultural barriers to face-to-face contact, schools increasingly rely on online and other forms of distance education. One answer to the problem of how to study effectively while maintaining flexibility is to use the network itself as a learning resource.

This trend coincides with the advent of the 4.0 age of the Industrial Revolution, which is currently a hot topic in many fields, including Indonesia's educational system. According to (Prasetyo & Trisyanti, 2018), the development of the steam engine in the 18th century ushered in a period of unprecedented innovation and change in global currents. The first major phase of industrialization is sometimes referred to as the Revolutionary Era. The discovery of electricity sped up the second wave of the Industrial Revolution and cut production costs as the century turned from the nineteenth to the twentieth. In the 1970s, computers began powering the third wave of the industrial revolution. After that, advancing scientific knowledge and technology lead to a more progressive society. With the advent of the internet of things and other forms of intelligent engineering in 2010, globalization ushered in the age of the fourth industrial revolution, allowing individuals to complete tasks more quickly and easily than ever before.

The ongoing digitalization period, often known as the progression of the Industrial Revolution 4.0, is a driver of technical advancement, including improvement in the sphere of education. Students can more easily access, organize, evaluate, and communicate the information they need to solve challenges because of these developments (Sujana, Rachmatin, & Panjaitan, 2019). Since the advent of ever-improving technological tools, classrooms have been able to abandon rigid, lecture-based formats in favour of more adaptive, student-centred ones (Budiman, 2017). Assignments and lessons can be delivered to students via online learning media (Anggraeni, 2018). E-learning, or online learning, is another way in which educators can take advantage of modern technology. The system is a teaching paradigm that makes use of modern means of communication and data storage (Hanum, 2013).

The development of technology at this time makes it easier in all things, one of which is in the field of education. There was a shift in learning patterns, which were initially only face-to-face with the development of technology, learning patterns were designed to be more flexible, flexible and efficient (Prisma, 2015; Zamaludin et al., 2016; Mubarok et al, 2018; Khoir et al, 2020). Distance learning aims to enable students to learn independently without having to meet face-to-face with the teacher. The teaching materials provided in distance learning are arranged systematically and easily understood by students who meet the criteria of self-contained (teaching materials or materials must be mastered by students) and self-instruction (materials provided must provide instructions on how the material is learned) (Puspitasari et al, 2018; Utami & Hermawati, 2018; Elvarita et al, 2020).

The transition from offline to online education is not as simple as one might think, though. It's important to take into account and focus on both teachers' and students' readiness to learn. These days, e-learning is just one of many ways that information technology can be used to its full potential as a teaching tool. Online education (or "e-learning") is a recent development that has the potential to improve not only the dissemination of course materials but also the development of students' skills in a wide range of subject-specific areas. Students can participate in the learning process by performing, observing, demonstrating, and so on through the use of electronic media. Learning resources can be

virtualized into more engaging and interactive forms to better engage and inspire students (Hartanto, 2016).

This is supported by the increasing development of computer systems through networks. The existence of the internet is needed both as a medium of information and communication that is carried out freely. One of the uses of the internet is in the distance learning system through electronic learning or better known as e-learning (Kristiani, 2016). For teachers, learning with e-learning will make it easier to store and refine learning materials, materials can be easily updated, reduced or added according to the needs of the teacher, and it is easier to update materials that are their responsibility in accordance with the demands of scientific development (Bakri & Mulyati, 2017).

Various e-learning services are available, both independently managed by institutions using the Learning Management System (LMS) or freely provided by third parties. E-learning plays a role in completing face-to-face (conventional) classes, not replacing conventional classes (Shank, 2008). The use of e-learning can improve learning efficiency and interactivity because it provides a higher potential space to communicate more with teachers, and colleagues, and access more learning materials (Balaji et al, 2016).

However, it is not easy to change habits from face-to-face learning to online learning. E-learning is closely related to the use of technology and is based on the use of multimedia (Clark, 2016). E-learning is a form of information technology that is applied in the field of education in the form of a virtual world. The term E-learning is more appropriately intended as a way to transform the existing learning process in schools or universities into the form of digitization through internet technology media. So in this case other instruments that are widely used in e-learning are multimedia, television, video, audio conferencing and others. Moreover, with the development of increasingly sophisticated information technology, there have been many distance learning applications such as google meet, google class, zoom meetings and youtube.

According to Kosasi (2015), students in the following situations may benefit from e-learning: Two examples are 1) attending alternative educational institutions (such as private schools) to take courses that aren't offered at their public school, and 2) engaging in home-based educational programs (homeschoolers) to acquire knowledge in areas like foreign languages and computer science that their parents aren't able to cover. pupils who are 1) anxious about going to school, 2) not thriving in a traditional classroom setting, 3) having dropped out of school but now wanting to return, and 4) not being able to attend a school in their own country due to physical or cultural barriers.

The problem is that not all are able to operate technology-based learning media properly (Widodo et al, 2020). The research of Sari et al (2020) shows that the implementation of distance learning still has many obstacles such as poor internet connection and inadequate equipment, besides that the increase in learning success is still small and ineffective. In addition, based on the results of Pakpahan & Fitriani (2020) it states that distance learning during the Covid-19 pandemic can run well with the information technology that has developed at this time, including e-learning, google class, zoom, WhatsApp and other information media. as well as an internet network that can connect educators and students so that the teaching and learning process can run well as it should even in the midst of the Covid-19 pandemic.

Other advantages of using e-learning are improving analytical thinking and scientific literacy skills (Setiaji, 2018), increasing motivation et al, 2016), increasing communication effectiveness (Al-Said, 2015), and facilitating better assimilation and accommodation stages. Dinata et al (2020), improve preparedness and shorten learning time (Ravitz & Blazeovski, 2014). Currently learning at State Elementary Schools in Pakan Dalam and Muning Baru villages are implementing distance learning. The implementation of online learning during the Covid-19 pandemic is used as the main way to continue to carry out learning. The implementation of distance learning based on e-learning in this study is limited and reviewed from several aspects, namely school policies related to the implementation of distance learning during the Covid-19 pandemic, (2) planning and implementing

distance learning based on e-learning for class 4 social studies learning, and (3) the obstacles faced in the implementation of e-learning. Based on logical reflective thinking on a number of emerging phenomena, the researcher wanted to know the implementation of distance learning at State Elementary Schools in Pakan Dalam and Muning Baru villages, Hulu Sungai Selatan Regency, South Kalimantan Province, Indonesia.

## 2. METHODS

This research employs phenomenological methods to learn about how fourth grade social studies instructors plan, administer, and deal with the limitations of distant learning based on e-learning. Phenomenological research methods are used to better grasp or examine the lived experience of humans. Analyzing and characterizing one person's encounter with a phenomenon in the real world is the goal of qualitative research. (Eddles-Hirsch, 2015).

Phenomenology is defined by several experts and researchers in their studies. Phenomenology is a qualitative methodology that allows researchers to apply and apply their subjectivity and interpersonal skills in the exploratory research process (Alase, 2017). This approach evolved into a mature and mature qualitative research method over the decades of the 20th century. The general focus of this research is to examine/examine the essence or structure of experience in human consciousness (Tuffour, 2017).

The location of the implementation of this research is the Public Elementary School in the Villages of Pakan Dalam and Muning Baru in the 2020/2021 school year. The time of study was carried out within a period of three months. The location of the research was determined based on the characteristics of one of the schools in the area which from the beginning became one of the schools implementing distance learning in Hulu Sungai Selatan Regency, South Kalimantan Province, Indonesia.

The subject of this research is the informant who will provide data about the variables to be studied and observed by researchers consisting of the Principal and Class IV Teachers, while the object of research is the implementation of distance learning in social studies lessons and its relation to e-learning. Determination of the subject is done by purposive sampling which is a sampling technique used by researchers if the researcher has certain considerations in taking the sample. The purposive sampling technique is a sampling technique with certain considerations (Sugiyono, 2016). The sampling is done intentionally by taking only certain samples that have certain characteristics, criteria, properties or characteristics. Sampling was not done randomly.

There are two types of data in the study, namely primary data and secondary data. Primary data is data obtained by researchers directly. This data was obtained from the results of in-depth interviews with teachers. In this case, the primary data is the result of the teacher's answer in accordance with the e-learning-based distance learning system on social studies content. Secondary data is data obtained by researchers from existing sources. This data serves to support primary data. This type of data can be obtained from books, journals, the internet and others, which the author can use as a reference that can broaden the horizons of distance learning and e-learning.

Researchers used three main techniques to produce maximum data, namely e-learning-based distance learning observation guidelines, teacher interview guidelines related to distance learning and e-learning as well as documentation. Observations are made for data collection by observing and recording an object with a systematic phenomenon under investigation. Observation is used because the researcher wants to be more sure about the validity of the data through direct experience in the field. Interviews are intended so that the information that can be obtained can really be proven and can be trusted, this technique is by way of question and answer and face-to-face between the researcher and the interviewee using interview guidelines. In this case, the researcher asked several questions related to distance learning based on e-learning. While documentation is needed to support the data.

The data analysis technique uses the theoretical steps of Miles, Huberman, & Saldana (2014), namely analyzing the data with three steps, namely: 1) data condensation, 2) data display, and 3) conclusion drawing and verification. The data validity technique used in this research is the triangulation technique. According to Moelong (2016) triangulation is a data validity checking technique that utilizes something other than the data as a comparison against the data or for checking purposes. Meanwhile, according to (Sugiyono, 2016) triangulation is a data collection technique that combines data obtained from several data mining techniques that have been used such as observations, interviews and field notes. In this study, researchers used triangulation of techniques and sources. Triangulation technique is done by comparing the data obtained from interviews, observations, and documentation. While triangulation of sources is done by comparing the data obtained from interviews with research subjects.

### 3. FINDINGS AND DISCUSSION

The presentation of the results of this study is useful for providing a general description of the implementation of distance learning based on e-learning in State Elementary Schools in Pakan Dalam and Muning Baru villages. The data obtained is based on the results of in-depth interviews with the fourth-grade homeroom teacher, documents and various data related to the distance learning system. The presentation of this data aims to answer research questions that developed in the field. The complete systematic description of the research data refers to the formulation of the problem. The substance of the research questions are (1) school policies related to the implementation of distance learning during the Covid-19 pandemic, (2) planning and implementation of e-learning-based distance learning in grade four social studies content, and (3) obstacles faced in the implementation of e-learning.

#### *The Policy Behind Distance Learning*

Based on the results of interviews with homeroom teachers and school principals, in general, the implementation of learning follows the guidelines of the Indonesian Ministry of Education and Culture regarding the Implementation of Learning From Home (BDR) during the Covid-19 Emergency and Circular No. 420/272/Disdikbud/2021 dated 12 February 2021 concerning the Re-enactment of Online/Online Teaching and Learning Activities in the Even Semester of the 2020/2021 Academic Year in the Education and Culture Office of Hulu Sungai Selatan Regency. The BDR implementation method consists of online distance learning and offline distance learning. In essence, the circular mentioned above states that the learning system apart from online can be through a special tutoring system, teachers visit by adjusting the conditions in their respective education units while still complying with the Covid-19 prevention health protocol.

The results of interviews with Class A teachers stated that in general learning problems during the Covid-19 pandemic were faced with reduced learning time due to BDR, access to learning resources (either due to electricity/internet coverage problems), not all parents were able to accompany their children to study at home because there were other responsibilities (work, housework, etc.), the difficulty of parents in understanding lessons and motivating children when accompanying studying at home and students having difficulty concentrating on studying from home and increasing boredom due to continuous isolation have the potential to cause anxiety and depression for children. Based on the results of the interview with the Class A teacher who explained that learning so far has been dominated by distance learning outside the network (offline) due to several technical factors such as students who are not ready to learn online, limited access to learning resources and the condition of students' families. During the observation, the observer was present directly in Class 4 with teaching materials for the 2013 Curriculum Student and Teacher Book Theme 6 Sub-theme 7 Learning 2. Based on the results of the interview, the media used were tables, pictures and objects in and around the classroom. Learning does not last long because the teacher only

provides reinforcement for the material that has been given and done at home. Offline learning is scheduled on Monday, Tuesday and Thursday.

The Class B teacher said that learning was carried out through blended learning (a mixture of offline and online). This is because students are technologically able to use technology well, it's just that the teacher needs to sharpen the material through offline learning which is carried out on a scheduled basis by the teacher. The obstacles faced were related to the adjustment of learning styles (online) and online learning platforms in the form of mobile phone access which was still limited due to the busyness of parents. Class B teachers schedule offline meetings through the WhatsApp group that has been created together with students. According to the Class B teacher, the WhatsApp group can usually be used well by students and there are already activities taking place in the group, for example, the Class B teacher sends a learning evaluation via google form and video shows learning materials on youtube. The Class B teacher also revealed that offline distance learning usually uses television, radio, self-study modules and worksheets, printed teaching materials, teaching aids and learning media from objects in the surrounding environment.

Based on the results of observations and short interviews, it is known that Class B teachers have attitudes, namely: 1) are able to use strategies that use e-learning; 2) already able to choose to use technology in the classroom to improve the learning process, what students learn and how to teach remotely; and 3) have been able to teach the right lessons by integrating subjects, technology and teaching methods. This is evidenced by the WhatsApp group that has been formed with students as a learning platform together, the teacher sends assignments and evaluations through the group, at certain times the teacher also provides a google form for students to fill out and student participation is high. This is in accordance with the principal's statement which states that learning in each class in principle has sought to use an e-learning approach in accordance with 21st-century learning. In general, teachers are able and understand distance learning based on e-learning in grade 4. However in the implementation, it is faced with inhibiting factors as described in the results of the homeroom interview information and the results of observations that have been made.

### ***E-Learning Based Distance Learning Planning***

With the emergence of the COVID-19 pandemic, teaching and learning activities that were originally carried out in schools have now become learning at home. Online learning is carried out according to the abilities of each school. Online learning can use digital technology such as study houses, google classroom, video conferences, zoom, telephone or live chat and others. However, what must be done is to give assignments through monitoring mentoring by teachers through WhatsApp groups so that children really learn. Then teachers also work from home in coordination with parents, either by telephone or through home visits.

The results of the interviews with Class A and Class B teachers regarding the preparation of lesson plans (RPP) were carried out based on the syllabus by taking into account the principles of efficiency, effectiveness and student orientation. This implies that teachers can choose, create, use and develop lesson plans independently for the maximum benefit of student learning. The RPP that has been prepared as attached is in accordance with containing the core components that must be loaded, namely learning objectives, learning steps (activities) and learning assessment (assessment). This is in accordance with Permendikbud No. 22 of 2016 concerning Standards for the Primary and Secondary Education Process states that there are 13 (thirteen) components in the RPP and Circular Letter Number 14 of 2019 dated December 10, 2019, concerning Simplification of Learning Implementation Plans. The format for writing RPP for Class A teachers is still adjusting to learning before BDR and Class B teachers are adjusting to the latest format for simplifying lesson plans.

Based on the results of the analysis the selection of strategies, methods and learning steps are in accordance with KI, KD and learning objectives. This was stated based on the results of interviews which stated that the assessment of the material was also carried out according to the needs of the teacher, for example through attitude observations, knowledge tests and presentations of

performance or project results with an assessment rubric. The results of observations show that teachers have been able to develop or adapt to the latest format for simplifying lesson plans by the Ministry of Education and Culture of the Republic of Indonesia. In accordance with the statement conveyed by the teacher, namely the learning steps that contain IPS (Economics) content in both schools show learning practices that are still integrated and integrated with other subjects presented in the form of themes. In this case, the planning for the RPP is in accordance with the 2013 Curriculum, which in economics social studies content is still integrated with other subjects and presented thematically. The results of interviews with homeroom teachers stated that online KBM can develop teacher creativity to utilize alternative learning media while students study at home. They can use existing learning resources, namely student books according to the themes taught according to the schedule that has been made previously.

### ***Implementation of E-Learning-Based Distance Learning***

Based on the results of interviews with the homeroom teacher, it was found that the implementation of distance learning still included economic material in the content of social studies subjects in accordance with the curriculum. This is in accordance with Social Sciences (IPS), which are social sciences that are selected and adapted for use in educational programs in schools or for other equal learning groups. Based on this, social study is a field of study which is a fusion of a number of social science disciplines. So it can be concluded that social studies material is taken from various social science disciplines such as history, sociology, anthropology, geography, political science, social psychology, economics, law, and other social sciences which are used as material for education in primary and secondary schools (Ahmadi, 1991).

Based on the statement above, it can be emphasized that the existence of economics in the social studies structure in elementary schools is already attached to other social sciences and is important to be taught to students. The economy is very close to human life and has a real influence on human daily life, starting from allocating income for the needs of daily life, decisions to choose goods to buy, dealing with rising prices of goods, choosing the type of work, saving in a bank that provides the highest interest rates, etc.

The economy studies community and individual behaviour in making options to use rare resources, in an effort to improve the quality of life in fulfilling their needs. Community needs are the desire to obtain goods and services. The desire to obtain goods and services. This desire is distinguished into two forms, namely: 1) the desire accompanied by the ability to buy and 2) desires that are not accompanied by the ability to buy (Septiana, 2016).

According to Ariyani & Harjanto (2018) economics studies problems related to resource scarcity, distribution systems, meeting individual and community needs, economic resources, capital labour, equipment and organizations. To see the full definition of the economy, Rosyidi (2009: 7) defines economics as a branch of science that covers the symptoms of a society that arise due to human actions in an effort to meet needs or to achieve prosperity. If it is related to the content of Economics Social Studies in elementary schools when distance learning activities are based on e-learning, then Social Sciences Economics teaching materials can be used in delivering material and are associated with the current Covid-19 pandemic condition. This is because social studies at the elementary school level are implemented in an integrated manner. This is in line with the context of the 2013 Curriculum which is also very relevant to include material on economic phenomena caused by the influence of Covid-19 through discussions that are easily understood by students. In general, for example, the content of social studies is in the 5th-grade book, theme 8, learning 3 and 4 in each sub-theme. The material taught to students aims to develop students' values, attitudes and morals, therefore the reality of life in society, nation and state should be used as a basic material in social studies material and developed for various aspects.

Based on the results of interviews with teachers of grades A and B, it was stated that the learning process it was carried out through the planning, implementation and evaluation stages. This is in

accordance with the statement of the Class A teacher, who stated that at the planning stage the RPP was prepared and the implementation was more focused on its implementation, each using various methods in learning social studies (Economics) content while still trying to integrate technology optimally. This is in accordance with the opinion of Nasution & Lubis (2018: 174) which states that various social studies learning methods can be carried out through the lecture method, discussion method, question and answer method, demonstration method, story/story method, simulation method, tutorial method, field trip method, exemplary method, team teaching method, group work method, practice method, and assignment method. (Nasution & Lubis, 2018: 191-196) also mentions models that are suitable for use in social studies learning in the 2013 Curriculum, namely problem-based learning, project-based learning and inquiry learning.

According to Mariyaningsih & Hidayati (2018: 10) method is a method used to implement plans that have been prepared in the form of real and practical activities to achieve learning objectives. Therefore, according to Nasution (2017: 10), every learning process must use learning methods so that learning can be maximized. In using learning methods in schools, a teacher can use different learning methods between classes.

Fahyuni & Istikomah (2016: 84) mention that learning in schools is faced with abstract teaching materials/materials outside the daily experiences of students, so the material becomes heavy and difficult to teach by teachers and difficult for students to understand. This includes learning social studies content so that the teacher's role as a developer of knowledge is very large to determine and select and implement appropriate and efficient learning for students, not only in the form of conventional learning. The two homeroom teachers have tried to convey the concept of economic IPS content correctly, in accordance with the objectives and characteristics of elementary school-aged children.

Susanto, (2014: 12) states that the implementation of social studies learning can be done through a contextual approach. This is mainly done through questioning, discovering and modelling activities. Students are invited to be able to carry out independent learning activities in accordance with the demands of social studies material that utilizes learning resources and students' own learning abilities in an effort to gain an understanding of the concepts being studied. Class A and B teachers in learning activities have also taken a contextual approach by involving close activities that occur in the student environment. For example, class A's teacher modeled Social Studies material in Economics through buying and selling plantation products such as chillies, mustard greens, tomatoes and others, which are widely available in the school environment and some of them is also the work of their parents. Likewise, the Class B teacher conducts modelling by including the concept of production-consumption-distribution to pottery craftsmen and regional specialities that have become icons around the school environment. Students with teacher assistance are invited to visit directly to see the process of economic activity or are given a video link on the WhatsApp group as e-learning-based student learning material.

Based on the results of the analysis of the e-learning-based learning steps in the lesson plans, the first learning (apperception) of the teacher opened with greetings and continued with reading guided prayers through Whatsapp groups, Zoom, Google Meet, and other e-learning applications. After that, review a little material that has been delivered the previous day. After that, it is continued according to the learning steps in the core activities and ends with closing. The results of the interviews between the two teachers stated that on certain days there were scheduled face-to-face activities in the classroom while still being disciplined about the Covid-19 prevention health protocol. This is done as a solution to the BDR constraints that have been analyzed.

Morgan (2020) mentions that the learning conditions carried out by teachers are not all optimal by conveying the entire material through distance learning. Therefore, (Rusdiana et al., 2020) state that the successful implementation of e-learning distance learning also cannot be separated from the readiness of the organizing school and teachers. Kaufmann & Vallade (2020) explain that this condition requires teachers to be skilled in applying various ways to conduct online learning

effectively. Thus, the learning process for economic social studies content has been appropriately conveyed by the teacher through various approaches, methods, methods, e-learning media and others. This is evidenced by the teacher's efforts to always present social studies learning experiences through contextual activities that are close to students and seek the integration of technology (e-learning) in every lesson.

### ***Obstacles in the Implementation of Distance Learning***

Online learning is currently a solution during the Covid-19 pandemic. But online learning is not as easy as one might think. One of the homeroom teachers said that in learning the teacher used zoom for face-to-face meetings, like in class. But not all children can access it because there are parents whose parents are still working, and there are also parents who are technology stuttering. In addition, the point is also looking for other alternative online learning media with google doc, providing links containing study material as well as assignments and the deadline for the work is considered more able to accommodate the needs of parents and children, this can help daily assessors, grades can be entered directly into the google form file.

However, the main obstacle based on the explanation of the Class A teacher is the limited signal problem and the explanation of the Class B teacher states that there are students who have limited access to cell phones because they are still used with their parents. Learning conditions faced with an internet connection have become quite an influential problem in the distance learning process. However, the main obstacle based on the explanation of the Class A teacher is the limited signal problem and the explanation of the Class B teacher states that there are students who have limited access to cell phones because they are still used with their parents. Learning conditions faced with an internet connection have become quite an influential problem in the distance learning process. Morgan (2020) stated that students feel anxious if they have difficulty participating in online learning when they cannot afford internet quota. In addition, unstable network conditions make students afraid of various technical problems. The technical constraints referred to include being late for class, assignments that were not successfully sent, to difficulty listening to the teacher's explanation properly. The difference in access to technology that each student has makes it difficult for some students to follow the lesson smoothly. This is also reinforced by the statement of Hastini et al (2020) which states that these difficulties are increasingly felt by students who live in areas/areas that do not have an adequate internet network.

This argument is reinforced by Oktawirawan (2020) who states that there are still students who cannot use the internet in a healthy manner and the application of distance learning makes students feel anxious and depressed. Chaterine (2020) said that teachers seem to be placing a lot of burdens on students, causing many students to experience stress in carrying out distance learning. Regarding the workload, the two homeroom teachers said that BDR should not be focused on completing all the material because it was feared that it would be burdensome and confusing for students in completing their assignments. The results of research by Fathoni et al (2021) show that learning during the Covid-19 pandemic has not been fully carried out optimally. In addition, students also get a mental/physical impact during online learning. Furthermore, students get signal barriers, learning environment, and learning activities with learning. However, students have a choice of varied learning strategies to minimize the barriers and negative impacts of online learning.

In addition, for teachers in minimizing barriers to e-learning-based learning, several solutions can be applied, namely: a) teachers can prepare learning materials as attractive as possible, such as presenting material in PowerPoint slides accompanied by learning videos so that the material is felt more alive by students; b) in terms of limited IT mastery, teachers can use technology that is simpler to operate, such as the WhatsApp application. However, little by little teachers have to improve their IT competence, among others, by attending related workshops, asking other teachers who have more abilities in the IT field (Puspitasari et al., 2018), steps to use, as well as how to produce learning videos; c). Students who are less concerned about participating in online learning can be overcome by

proactively contacting (via telephone/video call) students and their parents personally if it is not possible to make a home visit (Ariyani & Harjanto, 2018).

#### 4. CONCLUSION

Distance learning based on e-learning is carried out by utilizing the Whatsapp application and the platform controlled by each teacher. The distance learning system is not only based on e-learning at each school but also through a special tutoring system, teachers visit by adjusting the conditions in their respective education units and continue to comply with the Covid-19 prevention health protocol while still referring to the applicable regulations. The planning and implementation section shows that distance learning can run according to competence and curriculum. There are obstacles in the implementation of learning, namely the limitations of internet signals, adjustment of learning styles based on e-learning and access to learning platforms in the form of mobile phones which are still limited.

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