



## Students' E-Learning Readiness in Remote Teaching Context

Luh Putu Dessy Derri Sandy<sup>1\*</sup>, Made Hery Santosa<sup>2</sup>, Gede Mahendrayana<sup>3</sup>

<sup>1,2,3</sup> Prodi Pendidikan Bahasa Inggris, Universitas Pendidikan Ganesha, Singaraja, Indonesia

### ARTICLE INFO

#### Article history:

Received 19 February 2021

Received in revised form 30 March 2021

Accepted 10 April 2021

Available online 11 May 2021

#### Kata Kunci:

EFL, E-Learning, Kesiapan, Pengajaran Jarak Jauh

#### Keywords:

EFL, E-Learning, Readiness, Remote Teaching

### ABSTRAK

Keberhasilan penerapan e-learning dipengaruhi oleh beberapa factor. Salah satu faktor yang mempengaruhi keberhasilan penerapan e-learning adalah kesiapan penerapan *e-learning*. Penelitian ini bertujuan untuk menganalisis kesiapan *e-learning* siswa serta faktor pendukung dan pembatas dalam penerapan e-learning. Penelitian ini menggunakan desain penelitian mix-method yaitu *Explanatory Sequential Design*. Populasi dalam penelitian ini berjumlah 130 orang. Penentuan sampel menggunakan teknik *random sampling*, sehingga diperoleh sampel penelitian sebanyak 30 orang. Data diperoleh dengan menggunakan angket kesiapan belajar online dan pedoman wawancara. Data kemudian dianalisis dengan menggunakan analisis statistik deskriptif dan model analisis interaktif dari Miles & Huberman. Hasil skor kesiapan e-learning siswa adalah 3,70. Hasil wawancara menunjukkan faktor pendukung dalam penerapan e-learning adalah data internet gratis, e-learning fleksibel, dan media pembelajaran. Faktor pembatasnya adalah

fasilitas dalam e-learning. Dapat disimpulkan bahwa kesiapan e-learning siswa di SMA tergolong siap tetapi perlu beberapa perbaikan dan beberapa faktor yang harus menjadi fokus perbaikan, antara lain faktor teknologi, manusia, inovasi, dan pengembangan diri untuk meningkatkan kualitas pembelajaran. belajar dengan menggunakan e-learning.

### ABSTRAK

*The success of implementing e-learning is influenced by several factors. One of the factors that influence the successful implementation of e-learning is the readiness to implement e-learning. This study aims to analyze students' e-learning readiness as well as supporting and limiting factors in the application of e-learning. This study used a mix-method research design, namely the Explanatory Sequential Design. The population in this study amounted to 130 people. Determination of the sample using random sampling technique, in order to obtain a research sample of 30 people. The data were obtained using an online learning readiness questionnaire and interview guidelines. The data were then analyzed using descriptive statistical analysis and interactive analysis models from Miles & Huberman. The result of the student's e-learning readiness score was 3.70. The results of the interview show that the supporting factors in the application of e-learning are free internet data, flexible e-learning, and learning media. The limiting factor is the facilities in e-learning. It can be concluded that the e-learning readiness of high school students is classified as ready but it needs some improvement and several factors that must be the focus of improvement, including technological, human, innovation, and self-development factors to improve the quality of learning. learn using e-learning.*

## 1. Introduction

In early 2020, a crisis in almost all areas of the world influences many fields enormously. The case is the plague of Covid 19 (Zhang et al., 2020). The pandemic was started in late 2019. The spreading of Covid 19 is very significant, makes the government make a social distinction for a while. Thus, it will have effects on several fields. One of the areas that get that impact is the Educational area (McAleer, 2020). One of the solutions to solve the problem is by doing remote teaching. In remote teaching, the students can

\*Corresponding author.

E-mail addresses: [dessyderriandy@gmail.com](mailto:dessyderriandy@gmail.com) (Luh Putu Dessy Derri Sandy)

learn from their home. In this pandemic, the school should have a solution to make the learning process go well. In this pandemic, one solution to make the learning process is still going well is e-learning. The e-learning model deals with the learning that uses technology (Low, 2017). E-learning is also a way that makes students easier for leaning without worried about the distance. It means that the application of e-learning has a significant role in the education field (Tuntirojanawong, 2013). According to Chitra & Raj (2018), e-learning is very important used in learning. It is because e-learning has many advantages (Abed, 2019). Kumar Basak et al. (2018) argue that e-learning can make students easy to interact with others and access material. Students can share information and access learning materials at any time and repeatedly, it makes students can strengthen their comprehension Mousazadeh et al., (2016).

One of the factors that make the application of e-learning unsuccessful in implementing is readiness (Demir Kaymak & Horzum, 2013). In the implementation of e-learning, two crucial factors support students' readiness to apply e-learning run well, namely human resources and infrastructure. According to Keller (2020), Human resources consist of students and teachers. Another factor is infrastructure, e-learning infrastructure related to personal computers (PCs), the Internet, and multimedia equipment. Implementing e-learning in Indonesia, especially in senior high school, is difficult. According to Sadikin & Hamidah (2020), a problem in infrastructure that makes e-learning in senior high school cannot be implemented well. It also one of the issues why e-learning in Indonesia cannot be implemented well. Indonesia ranks 52<sup>nd</sup> among 60 countries about the forwardness country using e-learning and always declines for the following years (Low, 2017). Even though e-learning in Indonesia has been applying for around ten years, the result is terrible (Richard, 2003). Although there is a lot of problem with e-learning, some schools still use e-learning applications (Dwi et al., 2020). One of the applications in e-learning is google classroom. Google classroom is a kind of e-learning platform that is made by google in 2014. Google classroom is an application used in the learning process to make learning more effective (Shaharaneet et al., 2016). The implementation of google classrooms in this era can make learning better because there are many features in it. The students can share and upload their works in it. (Shampa Iftakhar, 2016). The critical point for utilizing google classroom is that the students and teacher should have Gmail to share the information and do interaction in google classroom (Abdelrahman et al., 2017). It is also related to the purpose of google classroom (Shampa Iftakhar, 2016).

Based on that observation, In the Buleleng regency, some schools used Google Classroom in the learning process. One of them is SMA Negeri 1 Seririt. It used Google Classroom application for learning in 2020. The researcher obtained the implementation of e-learning in the school already implement for around seven months. It was related to the laws and regulation No. 20 Tahun 2020 and circular letter No. 15 Tahun 2020. The government asked every school should do remote teaching (Jamal, 2020). It means that all of the schools should have the technique to deliver the material. Therefore, SMA Negeri 1 Seririt uses e-learning entirely to make the learning still run. The use of Google Classroom is a way to implement e-learning. The researcher obtained the used of Google Classroom in SMA Negeri 1 Seririt usually is used for delivering tasks and material. In Google Classroom, the teacher also usually gave video material for students. Although the use of Google Classroom in SMA Negeri 1 Seririt will help the students, there are also problems in implementing it. It makes them think that using it is not suitable for learning. Students face so many problems, such as knowledge of using the technology, because they did not know how to send assignments in Google Classroom and the facilities to access it. The students' problems are related to their readiness (Elsayed & Ali, 2010).

The study was written by Artwodini Muqtadiroh et al. (2018), focus on students' e-learning readiness. The researcher investigated by using an e-readiness model from Akaslan & Law and Aydin & Tasci. In this research, the researcher used a questionnaire consisted of five scales. The sample of this research consisted of 411 higher students. The data were collected by considered several factors such as technology, people, content, institutions, acceptance for e-learning, and e-learning training. The finding of this research showed that the average score from all variables higher than 3.4. The researcher got 3.6, especially in people factor. It is because the studets are generation z and familiar with technology. Although there is a score lower than 3.4. That factor is technology. The score in the technology factor is 3.1. It means that it needs improvement. This result got by using Aydin & Tasci. The result showed that many students had good confidence in ICT and ready with the technology.

Another study was written by Ramadan et al. (2019), also aimed to know the readiness of implementing e-learning by using the Chapnick model. This research used a descriptive quantitative method. The respondents of this research consisted of 90 students. This research used eight variables to measure it. The data of this research showed the teachers were not ready for e-learning and needed enhancement. It was proven with a score  $Mo=3,35 \leq 3,41$ . Another result showed that the students' score of e-learning readiness is  $Mo = 3,20 \leq 3,41$ . It means that the students are not ready for the implementation of e-learning. It also needed enhancement. The last finding showed that the school

readiness for e-learning is not ready and also needed enhancement. All of the findings had the same meaning. The enhancement should be done to make learning by using e-learning is not fail. Several factors should enhance psychological readiness, sociological readiness, financial readiness, technological skill readiness, equipment readiness, and content readiness. Those factors are essential to note because it gives influence students' improvement in learning.

This research deals investigating students' e-learning readiness includes supporting and limiting factor in implementing e-learning. The theory used in this research is Aydin and Tasci (Aydin & Tasci, 2005,p.250). The theory consists of technology, people, innovation and self-development factors. Technology deals with the facilities software and hardware, people focus on the ability on using technology, innovation is about the barriers, ability to adop innovation, oppeness to innovations and self-development about internal budget for e-learning, the ability to manage time, believe in self-development. This factor used to measure students' e-learning readiness.

**2. Method**

The design of this reseach is a mixed-method design that used explanatory sequential design (Creswell, 2014). Explanatory sequential design is where the quantitative data were dominant than qualitative data. The quantitative data used to know students' e-learning readiness in remote teaching context. Meanwhile the qualitative data used to know the supporting and limiting factor in implementing e-learning. The subject of this research is 11<sup>th</sup>-grade students of senior high school. In this research, the researcher used 30 students as the sample from the number population of 130 students of 11<sup>th</sup>-grade students of senior high school. The researcher chose 11<sup>th</sup>-grade students, because they have more knowladge to answer the question that related to this research. According to Norhasanah, (2018), 11<sup>th</sup>-grade students can think critical, so they have good skill to give opinion can be trusted. Based on that theory the researcher chose 11<sup>th</sup>-grade students. The method of this research is survey. The data collection was conducted through a survey and interview. The instruments used in this research are questionnaire and interview guide. The questionnaire and interview guide instruments adapted from Aydin and Tasci's theory. This theory about students' e-learning readiness. There are several indicators used appropriate to Aydin and Tasci theory. The indicators consist of availability of Software and Hardware, Ability to learn through e-learning, Barriers, Ability to adopt innovation, Openness to innovations, internal budget for e-learning, the Ability to manage time, believe in self-development. This is the blueprint questionnaire of students' e-learning readiness.

**Table 1.** This blueprint adapted from Aydin & Tasci (2005, p.250)

Factors	Indicator	Number of Statement
Technology	Software and Hardware	Q 15, Q 16, Q 17, Q 18
People	Ability to learn through e-learning	Q 1, Q 2, Q 3, Q 4, Q 5, Q6, Q13, Q14
Innovation	Barriers, Ability to adopt innovation, Openness to innovations	Q 7, Q 8, Q 9, Q 19
Self-development	Internal budget for e-learning, the Ability to manage time, believe in self-development	Q 10, Q 11, Q 12, Q 20

The method of data analysis in this research are descriptive statistics analysis and interactive model analysis from Miles & Huberman (1984), Descriptive statistics analysis aimed to get the main score of students' e-learning readiness. The main score is used to check Senior High School students' e-learning readiness in remote teaching. Meanwhile interactive model analysis used to to analyze data from the interview

**3. Result and Discussion**

**Result**

**Students' e-learning readiness**

In this research, there are several findings about students' e-learning readiness. The students' e-learning readiness consists the readiness of technology, people, innovation and self-developments factor.

**Finding on technology factor**

This factor about the availability of facilities used in e-learning. In this case, the students were asked to rate 4 statements on the 5 point scale Likert scale. The result of the mean score could be seen in Table 2.

**Table 2.** Technology Readiness Factor

ITEM	N	MEAN
Software availability	30	3.13
Hardware availability	30	3.06
Satisfactory software facilities	30	3.1
Satisfactory hardware facilities	30	3.03

Based on Table 1, it can be known that the mean score of software availability is 3.13. It refers to not ready need some work. Next is hardware availability. The mean score of hardware availability is 3.06. It means not ready need some work. The mean score of satisfactory software facilities belongs to 3.1. It indicates not ready need some work. Fourth, the mean score of satisfactory hardware facilities is 3.03. It indicates not ready need some work. Those are the mean score of indicators in technology factors

**Finding on people factor**

This factor about students' ability on using technology. This factor is essential to be concerned about because the students are the user of e-learning. It makes the users' skill in e-learning determines the success of e-learning. In this case, the students were asked to rate 3 statements on the 5 point scale Likert scale. The result of the mean score could be seen in Table 3.

**Table 3.** People Readiness Factor

ITEM	N	MEAN
I am able to use e-learning to do the task	30	3.9
I am able to use e-learning application	30	3.86
I welcome about the use of e-learning in learning process and assignments positively	30	3.93

Regarding on Table 2, the mean score of students be able to use e-learning to do the task is 3.9. It means that ready but needs a few improvements. Next is the mean score of students be able to use the e-learning applications. is 3.86. It refers to ready but needs a few improvements. The last is about the mean score of students welcome about the use of e-learning in the learning process and assignments positively is 3.93. It means ready but needs a few improvements.

**Finding on Innovation Factor**

Innovation readiness is related to students' experience adapting to the new change in elearning. It is also related to the students' experience to face the obstacles in e-learning. The innovation dimension is about how students solve the problem in e-learning.

**Table 4.** Innovation Readiness Factor

ITEM	N	MEAN
I can adapt to change / innovation in the learning process by implementing e-learning	30	3.9
I can accept change in the learning process by implementing e-learning	30	4.1
I do not find obstacles in implementing e-learning	30	4.13

Based on Table 3, it can be known that the mean score of students who can adapt to changes/innovations in the learning process by implementing e-learning is 3.9. It refers to ready but needs a few improvements. Next, the mean score of students who can accept changes in the learning process by implementing e-learning is 4.1. It means ready but needs a few improvements. The last is the mean score of students who find obstacles in implementing e-learning is 4.13. It means ready but needs a few improvements. Those are the mean score of indicators in the innovation factor.

**Finding on self-development factor**

Self-development is a factor regarding students' can improve their learning through e-learning. This factor is about internal budget and believe in self-development. In this case, the students were asked to rate 3 statements on the 5 point scale Likert scale the result of the mean score could be seen in table 4.

**Table 5.** Self-development Readiness Factor

ITEM	N	MEAN
I take the time to learn to accept changes in the learning process by implementing e-learning	30	3.8
I can improve my learning outcomes by using e-learning	30	3.86
There are sources of funds to create a budget for implementing e-learning	30	4.16
I am ready to apply e-learning to improve my learning outcomes	30	3.8

Based on Table 5 it can be known that the mean score of students who take the time to learn to accept changes in the learning process by implementing e-learning is 3.8. It means ready but needs a few improvements. Next, the mean score of students can improve their learning outcomes by using e-learning is 3.86. It indicates ready but needs a few improvements. Next, the mean score of there are sources of funds to create a budget for implementing e-learning is 4.16 It means ready but needs a few improvements. The last is the mean score of students ready to apply e-learning to improve my learning outcomes is 3.8. It means ready but needs a few improvements

**Finding about Supporting and Limiting Factor in Implementing E-learning**  
**Supporting Factors in Implementing e-learning**

Based on the interview sections, in implementing e-learning, the role of internet data from school helps students improve their learning by using e-learning applications. The students obtained free internet data from school to help students.

*“In implementing e-learning, there is internet data from school, so that I can search material on the internet and download the material. After that, I will read it. It can improve my understanding and achievement in learning by using e-learning”. (S3; F).*

*“I get internet data from school, and it helps me because I can use internet data to search material in google and YouTube. It also makes me do the task and submitted easily. (S6; M)”*

Besides that, in the implementation of e-learning, the students have a good perception of e-learning because e-learning is flexible and easy to access. It makes them feel enjoy in e-learning.

*“The use of e-learning is simple and flexible because I can access e-learning anytime and anywhere. I can learn the material whenever I want. It is good for me” (S5; M).*

*“In e-learning, the use of e-learning is not bounded by time and place. I do not need to go to school to submit the task. I can learn easily and more relax. I enjoy.” (S4; F).*

*“Yes, I’m happy using e-learning because it uses technology, I can access the material easily. It is simple and practical. I can submit my task through technology” (S8; F)*

Other findings supporting factor is that learning media in e-learning is useful and makes students feel happy in learning.

*“For me, the use of e-learning for learning is interesting because there is material in the form of video in e-learning that makes me feel happy in learning, and I can download it.” (S2; M)*

*“In e-learning, the material in the form of a video from YouTube focuses not only on school books or students’ worksheet (LKS). It makes it more interesting. The video also contains a clear explanation. I can watch it through link YouTube. So, it makes me understand more.” (S1; F).*

It can be concluded that the supporting factor in e-learning are students think that the use of e-learning is flexible so that it will help students in learning. Besides that, the availability of internet data and engaging media such as video can improve students’ achievements.

**Limiting Factor in implementing e-learning**

Based on the interview sections, there are several obstacles students face in implementing e-learning. This section explained students’ limitations in the implementation of e-learning. Based on the result of the interview about facilities that students use inadequate.

*“For limiting factor in e-learning are facilities such as my smartphone and laptop because my smartphone and laptop are too slow to use in e-learning, for example when I join e-learning. Another problem is the signal; sometimes, my signal is unstable, so it makes a bad connection. It makes me difficult to download the material that is given by the teacher.” (S2; M).*

*“The Laptop and smartphone that I have are not good, those are too slow to use because my Laptop and smartphone are old versions, even though it still can work, but I should use them carefully and slowly. Besides that bad signal or connection also the problem. It makes me a little bit difficult to watch video material and send the assignment in e-learning.” (S4; F).*

Based on the result of the interview, it is known that the limiting factors in e-learning are students’ facilities, bad signal in using e-learning applications

## Discussion

### Students' e-learning readiness

#### Technology Readiness

Technology is one of the essential factors in implementing e-learning. The technology used to make the learning implemented well (Suprayekti, 2018). According to Aydin & Tasci (2005), there are two components of technology in e-learning. Those are hardware and software facilities. The students should have worthiness facilities, to make the students access quickly and learning more effective. Based on the result of the survey conducted in SMA Negeri 1 Seririt mean score of the technology factor is  $M_o = 3.08$ . It indicated that the students are not ready need some work. Based on the interview, several causes make students not ready for the technology. The inadequate facilities in using e-learning are the students' problem. The problem of students' facilities usually happens in implementing e-learning. According to Dwi et al. (2020), the obstacles in implementing e-learning in Indonesia are caused by inadequate facilities that students have. These facilities include hardware and software facilities. It supported by a study was written by Ramadan et al. (2019). They found students are not ready for the technology factor. It is seen from the score  $M_o = 3.25$ . In e-learning, the students should have adequate facilities to make the learning more effective. The school and teacher should be concerned about it. A similar finding found in research by Kristina et al. (2020) also showed that many students have inadequate facilities that make them not feel satisfied with e-learning. According to Rahmawati (2020), good facilities are significant in implementing e-learning. It is because the facilities are tools to make students can learn in an e-learning class. Good smartphones and laptops are the facilities needed in e-learning. Yet, many students do not have good smartphones and laptops. It was related to the interview result that showed students' laptops and smartphones are too slow and error used in e-learning. It supported by a study written by Artwodini Muqtadiroh et al. (2018) showed that students are not ready for technology to implement e-learning. It seen from the score in technology readiness was 3.1. The students do not have good laptops and smartphones to access e-learning classes. Even though, students need to have proper facilities so they can join e-learning class easily and do many activities in e-learning class (Lestyanawati & Widyantoro, 2020). According to Mastura & Santaria (2020), using a good laptop and smartphone has a role in implementing e-learning. It is seen from memory and RAM. Rahmawati (2020) also argues that the utilization of the hardware facility is very significant. It makes students enjoy join the class in e-learning.

#### People Readiness

According to Artwodini Muqtadiroh et al. (2018), this factor is related to human resources and students' ability to use e-learning. This factor is essential to be concerned about because the students are the user of e-learning. It makes the users' skill in e-learning determines the success of e-learning. Based on this result of survey, the students' readiness in people factor indicates that students ready but need a few improvements. The result of the survey is  $M_o = 3.9$  showed that they have good skill to use e-learning. It is related to the characteristics of generation z, which likes instant things and already familiar with the technology. The research by Artwodini Muqtadiroh et al. (2018) showed that students already could use technology. It is seen from the score of people factor about  $M_o = 3.6$ . It is because students in this era categorized as z generation or net generation. The students' ability to use technology is good. It is because they use technology a lot in daily life. It makes them have more experience using technology, especially in e-learning application (Shaharane et al., 2016). According to Suprayekti (2018), students can use technology because they belong to generations z. This generation has known technology since children. It is also supported by the new curriculum that emphasized students to master technology related to learning. Another result of the interview, the students think that the use of e-learning is interesting. It is because there is video material that makes them can download the material and watching it. It indicates that the students have good ability in using e-learning. The study was written by Geraedts (2019) showed that video as learning media could help students learn in remote teaching. The students also can download the material. The students can join the activity in e-learning and download the material. Maharani & Kartini (2019) also argued that students could download material from google-classroom easily because they are already familiar with that platform. Most students can access e-learning to read material without difficulty. The material that exists in e-learning platforms can help students to make students have a better understanding.

#### Innovation Readiness

According to Aydin & Tasci (2005), innovation readiness is related to students' experience adapting to the new change in e-learning. It is also related to the students' experience to face the obstacles in e-learning. The innovation dimension is about how students solve the problem in e-learning. The mean score in this factor is  $M_o = 4.04$ . Based on the interview, the students got several problems in using e-



learning. The students have several solutions to solve the problem to make them can join e-learning class. The solution is the students find a location that has good Wi-Fi. It will help the students can learn and do discussion in e-learning. They use Wi-Fi when they have a terrible connection in e-learning. It means they have a good ability to face obstacles. According to [Sadikin & Hamidah \(2020\)](#), the use of Wi-Fi has a role to make the students can join and do activity in an e-learning class. A similar finding also found in the study was written by [Setiaji et al. \(2020\)](#). This study showed that the students are ready for the innovation factor. The students can solve the problem during e-learning. It means they have a good attitude and motivation to join an e-learning class. Another solution is refreshing or restarting the smartphone and laptop is a simple way that makes the device could be used. Based on the interview, the students usually restart their smartphone and laptop before doing e-learning class. After that, the students wait a minute until the smartphone could be used again. Research from [Hadining et al. \(2019\)](#) also explained that refreshing the smartphone can better make the smartphone catch the signal. It is also can make the smartphone is cooling down, so the device can run well. According to [Purba & Manurung \(2018\)](#), restarting the smartphone can make the smartphone catch the signal well. Therefore, the students can join the class to see the material and participate in the learning activity.

### **Self-development Readiness**

Self-development is a factor regarding students' can improve their learning through e-learning. The mean score of self-development is  $M_o=3.9$ , which indicates students ready but need a few improvements. It was also related to the result of the interview. Most students think that e-learning can improve their achievements. Students are ready in this factor because most students think that e-learning can improve students' achievement because of the material that is given by the teacher in the form of videos. The students think that it is interesting learning because the video that is given by the teacher has a clear explanation and make student can easy to understand about the material. So it can improve their achievement. The study was written by [Setiaji et al. \(2020\)](#) has similar findings with this research. The study showed that the students are ready because they can learn the various material in e-learning. The teacher usually gives video material to make the material clearer. Research by [Geraedts \(2019\)](#) showed that video as learning media could help students learn in remote teaching. The students also can download the material. So, it makes students understand the material quickly. According to [Maharani & Kartini \(2019\)](#), learning resources in the form of video could make the learning more effective. Video as e-learning media can make learning more meaningful, making the students understand the material. Besides that, it can make students focus on learning and improve their understanding. It also makes the student motivated to join the e-learning class. The students also can learn independently to understand the material does not depend on the teacher. It makes the student more active in learning. They find the answer individually and learn individually. So, it makes the students enjoy in education. They can improve their achievements. It makes the learning more optimal and effective.

### **Supporting and Limiting Factors in Implementing E-learning**

Based on the result of the interview, the supporting factor in e-learning there is internet data from the school. It is good to support students to improve their achievements. According to [Geraedts \(2019\)](#), internet data can make students feel more enjoy learning by using e-learning. The research from [Shaharane et al. \(2016\)](#) explained that internet data could be used to access the material in all e-learning platforms such as google classroom. The students feel that the internet data from school is a good way to improve their achievements. The students can search the materials in many sources such as Google and YouTube. It helps students to understand the material and do the assignment. Besides that, free internet data also makes the students feel thriftier. So, the students do not feel burdened in e-learning. Based on research from [Kristina et al., \(2020\)](#) explain that the internet data from school aimed to make students more focus in learning without worried about internet data, so it will improve their achievements.

Another result of the interview is the use of e-learning is flexible. Students enjoy learning because they can learn anytime and anywhere. The students can access and learn without worries and are more relaxed. The students also can submit the task without going to school. It is flexible for them in learning. Based on research from [Sadeghi \(2019\)](#) showed that the advantages of e-learning in distance learning, such as the students can learn whenever & wherever, because flexible. It is also supported by the research from [Nahid Khalil Elfaki et al., \(2019\)](#). The study explains that e-learning can make students learning quickly. It is because it is not bounded by time and place. The use of e-learning does not emphasize the students to go to school or go to someplace, so it will save time and money. Another research from [Kassymova \(2019\)](#) also explains that e-learning can make the students anytime and anywhere it also can make the students learning quickly. [Mudawamah, \(2020\)](#) also argues that e-learning is distance learning

that can be done anytime, and anywhere. It is also a learning process that can support students' understanding than learning face-to-face in one place between the teacher and the students.

Learning media such as video in e-learning is part of the supporting factor in implementing e-learning. Based on the interview result, in e-learning, the teacher gave learning media such as video to support students' learning. Research from Geraedts (2019) showed that video as learning media could help students learn in remote teaching. It is because, in remote teaching, there is material that is difficult to be explained by the teacher. According to Kumar Basak et al. (2018), the use of videos in e-learning can help students understand difficult material. It is because, in the video, there is a clear and complete explanation. According to Shaharane et al. (2016), the role of video in e-learning platforms such as google classroom can help students in learning because the students can learn the material repeatedly. It makes them can do the assignments that are given by the teacher. The use of video can make students think critically about the learning material contained in the video (Sukmawati & Nensia, 2019).

The limiting factor in e-learning is the obstacles that the student face in e-learning, such as facilities. It includes the laptop, smartpone, and bad signal. It is also related to the mean score in the survey that shows  $M_o = 3.08$  refers not ready need some work. Students do not have a good quality for their laptop and smartpone. So, it makes them a little bit difficult to join the class and do activities in the learning. Even though they still try to participate in following the course and understanding the material. According to Low (2017), the availability of suitable facilities for students to use in e-learning is still lacking. Research from (Dwi et al., 2020) shows that the infrastructure in the implementation of e-learning in Indonesia is not optimal. It causes a little problem for students in e-learning. The research from Eze et al. (2018) explained that the quality of laptops and smartphones in accessing e-learning make students feel enjoy in learning. At the same time, the use of the laptop and smartphone is very significant to be concerned to make the students can feel more comfortable when joining e-learning class.

Another obstacle is terrible internet connection when they access e-learning. The students a little bit difficult to download material and watching video material on google classroom. Besides that, the students also need a long time to upload their tasks in the google classroom. The research conducted by Kristina et al. (2020) explained that some students have an unstable signal when using e-learning. It makes the students need a few minutes to join the class in e-learning. It is caused by some students' residence that is not covered by internet network well. It is because they live in the village, their connection or unstable signal can run e-learning, but little bit needs time. According to Sadikin & Hamidah (2020), many Indonesian students have problems accessing e-learning because of an internet connection that is not stable to access e-learning. It happens because not all areas can be reachable by internet connection. The students who are from villages or hinterland usually have this problem when they want to access e-learning. Prasetyaningtyas (2020) also argues the issue of internet connection or signal because some places do not have a good internet connection and make students feel a little bit difficult learning in e-learning.

#### 4. Conclusion

Schools should pay attention to the facilities used by students to support the continuity of the e-learning process. Regarding the result of the interview, it could be known there are several supporting and limiting factors in the implementation of e-learning. Students' supporting factor in implementing e-learning are first is the students obtained free internet data from school and it can improve their achievements, second is the use of e-learning is flexible, it can make the students learn anytime and anywhere. The last is the use of learning media in e-learning, which can make students can understand the material in the learning. Meanwhile, students' limiting factor in implementing e-learning are first is many students do not have adequate facilities, second is the problem of internet connection in accessing e-learning. Those are students' supporting factors and limiting factors in implementing e-learning. It is suggested for students to always motivate in e-learning. Do not give up if there are problems in using e-learning. The students can find solutions and solve them by their selves. It is because every problem has a solution. The last suggestion was given to school. It is suggested to schools to more concern about students' facilities used in e-learning.

#### Reference

- Abdelrahman, S., Basher, O., Chauhan, S., & Khalil, Z. M. (2017). The impact of google classroom application on the teaching efficiency of pre-teachers. *International Journal of Social Sciences and Education*, 2(2), 33–48. <https://doi.org/10.1016/j.compedu.2016.11.005>.
- Abed, E. K. (2019). Electronic Learning and its Benefits in Education 1. *EURASIA Journal of Mathematics, Science and Technology Education*, 15(3).
- Artwodini Muqtadiroh, F., Ma'ady, M. N. P., & Rizal Rahman, F. (2018). Ensemble Measurement Model of E-



- Learning Implementation Readiness for Higher Education Institution. *IJAIT (International Journal of Applied Information Technology)*, 2(02), 74. <https://doi.org/10.25124/ijait.v2i02.1206>.
- Aydin, C. H., & Tasci, D. (2016). *Measuring Readiness for e-Learning : Reflections from an Emerging Country Cengiz Hakan Ayd ı n*, 8, 244–257.
- C. Keller, L. C. (2020). Students' Perception of E-learning in University Education. *Journal of Education*, 27(1–2), 55–67. <https://doi.org/10.33373/chypend.v3i1.868>.
- Chitra, A. P., & Raj, M. A. (2018). E-Learning. *Journal of Applied and Advanced Research*, 3, 11–13.
- Demir Kaymak, Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. *Kuram ve Uygulamada Egitim Bilimleri*, 13(3), 1792–1797. <https://doi.org/10.12738/estp.2013.3.1580>.
- Dwi, B., Amelia, A., Hasanah, U., & Putra, A. M. (2020). Analisis Keefektifan Pembelajaran Online di Masa Pandemi Covid-19. *Jurnal Pendidikan Guru Sekolah Dasar*, 2(1), 3.
- Elsayed, I., & Ali, H. (2010). Measuring Students E-Readiness For E-learning At Egyptia Social Cognitive. *The 6th International Scientific Conference on E-Learning and Software for Education, Bucharest, 2010*, 1–10.
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of e-learning facilities in the educational delivery system of Nigeria: a study of M-University. *International Journal of Educational Technology in Higher Education*, 15(1). <https://doi.org/10.1186/s41239-018-0116-z>.
- Geraedts, R. (2019). *Remote Teaching in Design Education. October 2019*.
- Hadining, A. F., Sukanta, & Hidayat, W. (2019). An investigation of student perspective for e-learning readiness measurement. *Proceedings of the International Conference on Industrial Engineering and Operations Management, 2019(MAR)*, 548–555.
- Jamal, S. (2020). Analisis Kesiapan Pembelajaran E-Learning Saat Pandemi Covid-19 Di Smk Negeri 1 Tambelangan. *Jurnal Nalar Pendidikan*, 8(1), 16. <https://doi.org/10.26858/jnp.v8i1.13561>.
- Kassymova. (2019). E-learning and its benefits for students. *Modern Methods and Technologies of Teaching, 1946*(table 1), 249–255.
- Kristina, M., Sari, R. N., & Nagara, E. S. (2020). *Model Pelaksanaan Pembelajaran Daring pada Masa Pandemi Covid 19 di Provinsi Lampung. IV*(2), 200–209.
- Kumar Basak, S., Wotto, M., & Bélanger, P. (2018). E-learning, M-learning and D-learning: Conceptual definition and comparative analysis. *E-Learning and Digital Media*, 15(4), 191–216. <https://doi.org/10.1177/2042753018785180>.
- Lestiyawati, R., & Widyantoro, A. (2020). Strategies and Problems Faced by Indonesian Teachers in Conducting E- Learning System During COVID-19 Outbreak. *Journal of Culture, Literature, Linguistic and English Teaching*, 2(1), 71–82.
- Low, P. (2017). E-learning Implementation in Foundation English Class: Learners' Perspectives and Learning Achievement. *International Journal of Computer Theory and Engineering*, 9(4), 285–289. <https://doi.org/10.7763/ijcte.2017.v9.1153>.
- Maharani, N., & Kartini, K. S. (2019). Penggunaan google classroom sebagai pengembangan kelas virtual dalam keterampilan pemecahan masalah topik kinematika pada mahasiswa jurusan sistem komputer. *PENDIPA Journal of Science Education*, 3(3), 167–173. <https://doi.org/10.33369/pendipa.3.3.167-173>.
- Mastura, & Santaria, R. (2020). Dampak Pandemi Covid-19 terhadap Proses Pengajaran bagi Guru dan Siswa Pendahuluan. *Jurnal Studi Guru Dan Pembelajaran*, 3(2), 289–295.
- McAleer, M. (2020). Prevention Is Better Than the Cure: Risk Management of COVID-19. *Journal of Risk and Financial Management*, 13(3), 46. <https://doi.org/10.3390/jrfm13030046>.
- Miles, M. B., & Huberman, M. (1994). *Qualitative Data Analysis*.
- Mousazadeh, S., Dehghani, M., Mozaffari, F., & Al, E. (2016). The effectiveness of E- learning in learning: A review of the literature. *International Journal of Medical Research & Health Sciences*, 5(2), 86–91.
- Mudawamah, N. S. (2020). Perilaku Pengguna Internet: Studi Kasus Pada Mahasiswa Jurusan Perpustakaan Dan Ilmu Informasi Uin Maulana Malik Ibrahim. *Jurnal Kajian Perpustakaan Dan Informasi*, Vol. 4 No.(1), 107–113. <http://journal2.um.ac.id/index.php/bibliotika/article/download/14762/6000>.
- Nahid Khalil Elfaki, Itedal Abdurraheem, & Rashida Abdulrahim. (2019). Impact of E-Learning vs Traditional Learning on Student's Performance and Attitude. *International Journal of Medical Research & Health Sciences*, 8(10), 7. <https://www.ijmrhs.com/medical-research/impact-of-elearning-vs-traditional-learning-on-students-performance-and-attitude.pdf>.
- Norhasanah, N. (2018). Kemampuan Berpikir Kritis Siswa SMA Dalam Pembelajaran Biologi. *Jurnal Pembelajaran Biologi*, 5(1), 105–110. <https://core.ac.uk/download/pdf/267822861.pdf>.
- Prasetyaningtyas, S. (2020). Pelaksanaan Belajar Dari Rumah ( BDR ) Secara Online Selama Darurat Covid-

- 19 Di SMP N 1 Semin. *Ideguru: Jurnal Karya Ilmiah Guru*, 5(1), 86–94. <https://jurnal-dikpora.jogjaprovo.go.id/index.php/jurnalideguru/article/view/139/165>.
- Purba, M. J., & Manurung, S. V. B. (2018). Analisis Kualitas Internet Teknologi 4G Di Kota Medan. *Jurnal Manajemen Informatika & Komputersasi Akuntansi*, 2(2), 127–131.
- Rahmawati. (2020). Analisis Pembelajaran Daring Saat Pandemi Di Madrasah Ibtidaiyah. *SITTAH: Journal of Primary Education*, 1(2), 139–148. <https://doi.org/10.30762/sittah.v1i2.2487>.
- Ramadan, R., Pradnyana, I. M. A., & Suyasa, P. W. A. (2019). Pengukuran Tingkat Kesiapan Implementasi E-Learning (E-Learning Readiness) Di Sma N 2 Singaraja Menggunakan Model Chapnick. *Jurnal Pendidikan Teknologi Dan Kejuruan*, 16(2), 258. <https://doi.org/10.23887/jptk-undiksha.v16i2.18683>.
- Richard. (2003). *The 2003 e-learning readiness*.
- Sadeghi, M. (2019). A shift from Classroom to Distance: Advantages and Limitations. *Internasional Journal of Reserach in Englissh (IJREE)*, March, 80–88.
- Sadikin, A., & Hamidah, A. (2020). Pembelajaran Daring di Tengah Wabah Covid-19. *Biodik*, 6(2), 109–119. <https://doi.org/10.22437/bio.v6i2.9759>.
- Setiaji, B., Ariadi, P., & Dinata, C. (2020). Analisis kesiapan mahasiswa jurusan pendidikan fisika menggunakan e-learning dalam situasi pandemi Covid-19 *Analysis of e-learning readiness on physics education students during Covid-19 pandemic*. 6(1), 59–70.
- Shaharane, I. N. M., Jamil, J. M., & Rodzi, A. S. S. M. (2016). The application of Google Classroom as a tool for teaching and learning. *Journal of Telecommunication, Electronic and Computer Engineering*, 8(10), 5–8.
- Shampa Iftakhar. (2016). Google Classroom: What Works and How? *Journal of Education and Social Sciences*, 3, 12–18.
- Sukmawati, S., & Nensia, N. (2019). The Role of Google Classroom in ELT. *International Journal for Educational and Vocational Studies*, 1(2), 142–145. <https://doi.org/10.29103/ijevs.v1i2.1526>.
- Suprayekti, S. (2011). Integrasi Teknologi Ke Dalam Kurikulum. *Perspektif Ilmu Pendidikan*, 24(XV), 204–209. <https://doi.org/10.21009/pip.242.9>.
- Tuntirojanawong, S. (2013). Students ' Readiness for E-learning : A Case Study of Sukhotai Thammathirat Open University, Thailand. *Journal of Learning in Higher Education*, 9(1), 59–66.
- Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending Classes Without Stopping Learning: China's Education Emergency Management Policy in the COVID-19 Outbreak. *Journal of Risk and Financial Management*, 13(3), 55. <https://doi.org/10.3390/jrfm13030055>.