

The Use of e-Learning Platform by Primary School Teachers in West Sumatera

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Abstract

Since Indonesia declared the COVID19 pandemic emergency, all elementary schools have implemented an online learning system. However, in January 2021, the Padang City Government decided to introduce a private learning system with rules that comply with health protocols. Nevertheless, the problem of e-readiness was identified as the main challenge that influences teachers to become good facilitators for online learning. The purpose of this study is to find out how elementary school teachers in West Sumatra try to incorporate e-learning into their classrooms and what factors influence their motivation. The approach used in this study is a qualitative approach by distributing questionnaires to 30 respondents. Analytical interactive model was used to analyze the data and it was found that teachers in schools located in city centers with adequate internet access were ready to implement e-learning systems. There are also significant differences in motivation levels between public and private school teachers. In addition, several factors have been identified that teachers should consider supporting their desire to learn online including those related to well-instruction, high-quality content, good relationships, and good mental health.

Keywords: teacher's e-readiness, e-learning, primary school teachers.

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1. Introduction

The COVID-19 pandemic that emerged at the end of 2019 and began to spread to various parts of the world in early 2020 has drastically changed the order of human life from all aspects, including the world of education in Indonesia. Learning that was originally carried out face-to-face in classrooms has shifted to the virtual world through online learning. (Meylina, 2021) revealed that the Covid-19 case that spreads in the city of Padang cannot be underestimated, because as educators, this condition is a big challenge for all educators to be able to try their best to teach online with all limitations.

The distance learning process has its advantages and disadvantages. (Betül C. Czerkawski, 2000) states that in distance learning, the limited interaction between students and teachers as well as with other students causes a very limited level of communication. This communication limitation causes limitations in capturing the information provided by the teacher. But on the other hand, the advantage is that students will be more flexible in the learning process, the location of learning can be conditioned depending on the circumstances and conditions at that time.

This pandemic situation requires teachers to interact digitally to greet students and

provide materials and assignments that students must do at home. In this case, teachers are also required to have readiness to teach online. According to (Wote & Sabarua, 2020) a teacher who is ready to learn in any condition will be able to improve the quality of teachers. In addition, the readiness of a teacher to face the learning process has a major influence on the success of education in schools. (Hanifa, 2017) adds that teachers who already have the readiness to carry out the learning process by preparing lesson plans, implementing, evaluating, and following up by considering several things that are considered important by the teacher. If every educator and student is able to do it together, then the teaching and learning process can still be carried out well. Responding to the stay at home condition due to the Covid-19 pandemic, teachers really must be able to present learning using technology or what we call e-learning. (Scherer et al., 2021) revealed that one of the psychological factors in the learning process is readiness. He defines readiness as the overall condition of a person that makes him ready to respond in a certain way to a situation. Readiness can be seen through maturity in the learning process.

Issues of e-readiness were identified as a major challenge affecting for the teachers to be good facilitators for online learning (Hu & Alsaqqaf, 2020) state that integrating e-learning into language teaching is urgently needed. The e-readiness is concerned to the ability to apply the e-learning in the teaching and learning process. Thus, investigating the e-learning readiness is important to assess the success of e-learning implementation in education. The present study is obviously focused on the e-readiness of primary teachers to integrate e-learning into classroom. The purposes of this research are to figure out the level of e-learning readiness among teachers at selected primary schools and discover what factors influencing Teachers e-learning readiness at those schools in Padang city of West Sumatera.

1.1. E-Learning and e-readiness

E-learning is chosen as an alternative to carry out education during this pandemic.

Various definitions emerged along with the lock down period. (Jamal, 2020) defines e-learning as a new learning method in the form of a combination of network technology and multimedia combined with pedagogy and andragogy. Furthermore, (Yulianti & Hayun, 2020) revealed that E-learning is all learning activities that use the help of electronic technology, which can be applied in conventional education and distance education. The same thing was also stated by (P.Pontoh, 2013) that E-learning is learning that utilizes the support of internet technology. In e-learning, the teacher does not just upload learning materials that can be accessed online by students, but the teacher also evaluates, establishes communication, collaborates, and manages other learning aspects.

The readiness of educators to carry out online learning is a very important factor in determining the success of learning carried out during this pandemic. Readiness to teach online can be broadly defined as “the state of preparation of an institution” to teach online (Rizki Tiara & Pratiwi, 2020) Furthermore, (Sobron et al., 2019) confirm that online learning has benefits such as building communication and discussions between teachers and children, children interacting and discussing with one another, making it easier for children to interact with teachers and parents, the right means to see children's progress through parental reports with the goal is that parents can see their development firsthand, teachers can easily provide material to children in the form of pictures, videos, and audio that can be downloaded by parents directly, and make it easier for teachers to make materials anytime and anywhere.

1.2. Teacher e-readiness in Primary Schools

The high transmission of Covid-19 has made many schools decide to continue online distance learning. Schools make this situation more creative in developing contextual and quality teaching-learning methods. (Imel, 2020) state that The Governor of West Sumatra, Irwan Prayitno, said that regarding the learning design, the Minister of Education and Culture

(Mendikbud) emphasized that all the citizen should not run away from reality because it will meet continuously in the daily life as teachers later. Technology must be learned in order to master and not dodge so that they can achieve their goals according to their targets because online is a necessity that will continue to run. There are 403 primary schools in Kota Padang. 338 schools are public schools and the rest are private schools (Diknas Kota Padang, 2020).

Since the emergency status of the COVID-19 pandemic was declared, all elementary schools have implemented an online learning system. However, in January 2021, the Padang city government decided to implement a face-to-face learning system with rules that adhere to health protocols. Of the total 403 elementary schools in Padang City, which have not implemented face-to-face learning, there are around 10 schools. Some of these schools are still preparing and evaluating readiness to implement face-to-face learning. (Lubis, 2021).

There are many theories that discuss e-learning readiness or commonly known as e-readiness. One of the theories presented by (Chapnick, 2000) that there are eight categories in measuring whether the e-learning can be implemented successfully, namely (1) psychological readiness which considers the perspective on the influence of E-learning initiatives. this factor is an important factor that must be considered and has the highest chance to sabotage the implementation process (2) sociological readiness considering the interpersonal aspects of the environment with the program to be implemented (3) environmental readiness which considers the operation of large powers on stakeholders, both inside and outside the organization (4) human resources readiness which considers the availability and plans of the human resource support system (5) financial readiness which considers the size of the budget and allocation process (6) technological skill readiness which considers technical competencies to be observed and measured (7) equipment readiness which considers equipment ownership appropriate (8)

content readiness that considers learning content and learning objectives.

There are many issues happened related to the use of e-learning platform. The primary and secondary schools have also started holding online classes through various digital platforms. Teachers need serious preparation to use online tools and platforms. They are not all ready for the new situation, which further opens the issues with our overall education. In addition, (Jamal, 2020) recommends that every teacher should be able to determine the best time to maximize productivity and consider various aspects of online teaching that suit to students' abilities. By thinking systematically and strategically about the various aspects of teaching these courses, online teachers can maximize their efficiency and effectiveness. Therefore, it is essential to investigate the level of e-learning readiness among teachers at public schools and private schools in West Sumatera and factors influencing it.

2. Method

Qualitative descriptive is the type of research chosen by the researcher in this study. By using purposive sampling, there were three public schools and three private schools which were selected based on the affordability of distance and access from the researchers. Each school is represented by five teachers. The total number of subjects in this study was 30 teachers from the six selected schools. Data collection techniques are in the form of a questionnaire and interviews. The questionnaire was distributed via WhatsApp messages to the teachers.

The questionnaire implemented in the study will be structured list of questions refer to the enclosed questionnaire presented by (Nazir, 2003). The questionnaire contains questions about the readiness of teachers to conduct online learning in elementary schools during the COVID-19 pandemic. The responses will be screened through the Likert Scale consisting five preferences – strongly agree, agree, neutral, disagree, and strongly agree. Interview is a discussion with open answers. The researcher asked 5 questions related to the e-readiness of teachers in

dealing with online learning. These include the types of applications used by the school, the form of material shared in the application or classroom that is used, the form of feedback from each assignment, the form of exams, and general views on e-readiness from teachers who teach their children.

2.1 Procedures

This research was conducted in May 2021, summarizing the implementation of online learning that has been carried out by teachers in the 2021-1 school year. The research was conducted by distributing an open questionnaire to 30 teachers from 3 public schools and 3 private schools through WhatsApp application. Considering that each teacher's busy schedule is different, the researcher gave about three days to complete filling out the questionnaire. Then to get additional information related to e-learning readiness from the teachers, the researchers conducted direct interviews with 12 teachers and 12 students' parents via telephone. The researcher asked 5 questions related to the e-readiness of teachers in dealing with online learning.

2.2 Data Analysis

The analysis technique used in this study is the Analysis Interactive Model (Miles & Huberman, 2014) which consists of data collection, data reduction, data presentation, and drawing conclusions. The measurement of e-readiness is related to technical and pedagogical readiness. The researchers adopted 28 survey items based on a review of the literature on technology readiness survey created by (Bonnano, 2011) and the level of categories in the application of the Technology Readiness Index developed by (Parasuraman, 2000). Sixteen items measured technical readiness and twelve items measured pedagogical readiness. Each item of the survey was measured on a common Likert scale, continuum of 1 to 5 with "1" representing "strongly disagree" and "5" representing "strongly agree".

In order to define the level of e-readiness, there are 3 categories in the application of the Technology Readiness Index developed by (Parasuraman, 2000). The Scale of

Technology Readiness Index (TRI) can be seen in the following table:

Scale	Category
TRI < 2.89	Low Technology Readiness
2.90 < TRI < 3.51	Medium Technology Readiness
TRI > 3.51	High Technology Readiness

3. Findings and Discussion

3.1. The level of e-learning readiness among teachers at public schools and private schools in West Sumatera

To answer the first research question, "What is the level of e-learning readiness between teachers in public schools and private schools in West Sumatra?" The findings related to the results of teachers' e-readiness were categorized into two charts. In the first chart, the mean scores of teachers' e-readiness of public schools are presented and in the second chart, the teacher's pedagogical e-readiness was measured in the field of teaching using technology.

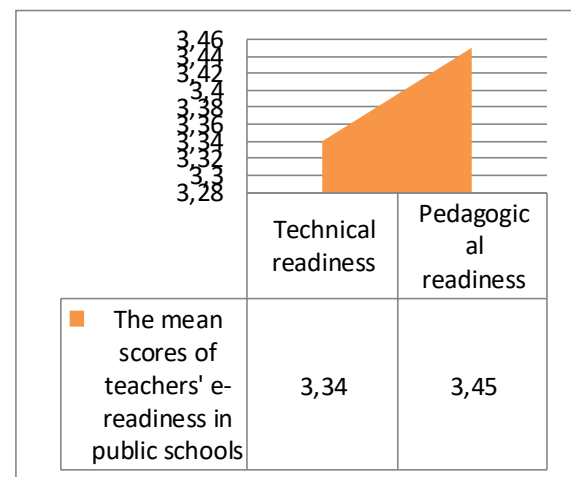


Figure 1. The mean scores of teachers' e-readiness in public schools.

Based on the chart above, the teacher's e-readiness results show that the average teacher's response to technical e-readiness ranges from 2.50 to 3.34. Based on the scale developed by (Parasuraman, 2000), this scale includes to medium level. Furthermore, the average teacher's response to pedagogical e-readiness ranges from 3.08 to 3.45, this average range demonstrates a medium level of readiness. In general, teachers at public schools are ready to face online learning, although they are still at a moderate level. In terms of technical

readiness, 70% of teachers are used to using mobile devices in their daily life. The teachers are also competent in using e-mail as a means of communication. Teachers also have no difficulty using an application in discussing with students, uploading materials, or downloading materials. However, there are around 60% of teachers who still have not mastered the skills in making power points, creating websites, and using LMS.

Data obtained from public schools shows that schools only use the WhatsApp application for online learning. Each class has a different WhatsApp Group (WAG). Through WhatsApp Groups, every morning the teacher greets the students and provides materials and daily assignments. The material is delivered in several formats. Some are in the form of instructions for reading certain topics in printed books or student worksheets. Some are in the form of pdf documents, and some are in the form of short videos recorded by the teacher.

To support the material, a youtube link is shared in WAG. Assignments are also given via WAG, within the allotted time; students must send the assignment back directly to a private message to the teacher concerned in the form of a photo from the student's own handwriting. The way the teacher assigns assignment grades is quite varied, some are corrected directly in the photos sent by students, and some other only sent the grades. Unfortunately, there are parents who complain about their dissatisfaction with the teacher's performance. He or she only responds to student assignments via WhatsApp with thumb emoticons without feedback on the results of the assignments. For the implementation of the exam, the teacher asked parents to take the exam questions to school using strict health protocols. The exam questions are then taken home so that students can work on them and the results must be returned the next day when they pick up the next exam questions. This is done for 1 week until the exam is finished.

Based on the results of interviews with parents of students, in general they feel that

online learning through WAG is still not optimal. These include in terms of timeliness, clarity of material, and discussion of practice questions. Teachers are often late in sending materials. In the online learning schedule, the material should be delivered in the morning, but in reality it is often delivered in the afternoon. As parents, they find it difficult to divide the time to guide students in understanding the material and doing homework at home because they have to divide their time between office work and household work. Parents of students also considered that teachers at public schools were still at a moderate level and still needed to be improved. So that teachers can be more creative to use other applications such as Zoom meeting, Edmodo, Google meets, Google Classroom, and Quizziz.

Furthermore, the researcher also collected information about the e-readiness of teachers in private schools. The findings obtained can be seen in the following chart:

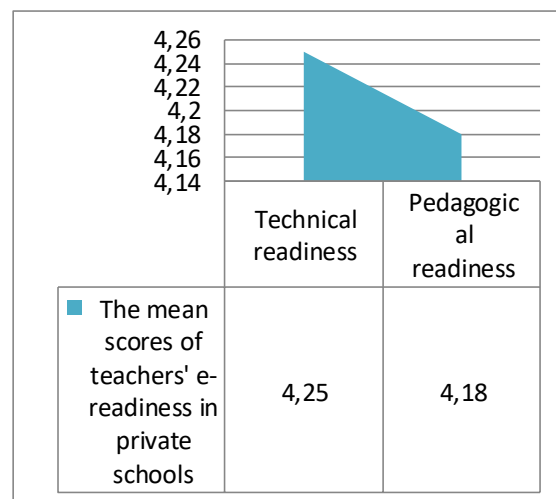


Figure 2. The mean scores of teachers' e-readiness in private schools

The chart above illustrates that teachers in private schools have high e-readiness. This can be seen from the average achievement of the mean on technical readiness reaching 4.25. Moreover, in terms of teaching, teachers in private schools are quite competent in managing learning using technology. This is concluded from the achievement of the average score of 4.18. Based on the Technology Readiness Index (TRI) scale table above, it is clear that this

range of values is included in the category of high pedagogical readiness.

In online learning, private schools use a variety of applications, starting from WhatsApp, Google Classroom (GCR), and Zoom Meeting. WhatsApp only be used as a media to inform about important things related to the online learning. Meanwhile, the teaching learning process is done through GCR. Materials are also delivered in various formats, ranging from pdf, ppt, and videos. The videos were made by teachers where the setting is in the real classroom. There are also schools that take videos from youtube, and then dub them with the teacher's voice in order to provide simpler explanations so that students can easily understand them. Feedback from teachers can be seen in the assignments section in Google Classroom within a day or two days after assignments have been given.

In addition, there are two kinds of ways to carry out the examination; first, the teacher sends the exam questions via WAG, then the students work on their notebooks and send their photos to the teacher. Through private messages, the teacher will correct and explain the answers to the exam questions in detail. Students are allowed to ask if there is a part that has not been understood; second, students carry out face-to-face exams at school according to shifts determined by the teacher using strict health protocols. This is done as a form of policy to measure students' abilities directly.

The results of interviews with parents of students in private schools also showed similar results. 90% of parents agree that teachers already have a high level of e-readiness. This is based on the online learning process during this pandemic. Teachers are familiar with the use of communication technology and maximize the use of applications in learning. The material presented is packaged in an interesting and quite varied presentation. Teachers are also quick in responding to answers to daily assignments and exams. Nevertheless, there are still some teachers who are not disciplined in giving assignments or giving feedback on

assignments. This causes poor communication and makes it difficult for students to understand the material given.

3.2. Factors Influencing Teachers e-learning Readiness at primary schools in West Sumatera

The next stage of analysis is the identification of factors to consider for teachers to support their online learning readiness. Some of the factors found in this study, the first is well-designed instruction. In online learning, teachers find it more difficult to monitor student understanding, and there is a significant risk that the lessons are not well-organized and the material is too dense to make student understanding unoptimal. Thus, the selection of materials and online lessons should be very clear and well-structured, delivered in manageable chunks, provide good opportunities for students to practice what is to be learned, and allow opportunities for teachers to view student work and provide feedback on time (Jamal, 2020). When teachers are satisfied students have the basics, they can then provide more independent online learning activities.

The second is high quality content. With regard to the delivery of online course content, schools must balance different amounts of preparation for each semester. Guidelines for the use of technology or learning applications that will be used must be socialized to teachers. (Rizki Tiara & Pratiwi, 2020) provided several content management suggestions for online course delivery, including strategically integrating technology, clearly organizing and labeling course information, explicitly stating due dates and other time requirements, and explaining discussion requirements.

The third is good interpersonal relationships. The bad relationship created by the teacher and his or her students will result in a less harmonious relationship, for example the teacher is too rigid in teaching, too hard in guiding, too soft in teaching (P. Pontoh, 2013). This can affect the communication process or the delivery of messages to the students, more over in online learning.

Children can tend to be afraid, or tend to be too brave, or even not pay attention to what is being taught.

The last factor is good mental health. Online learning that has been going on for a long time should not cause stress to both teachers and students. The internet network which is often disturbed sometimes becomes a serious obstacle in the online teaching process. (Wardhani, 2017) states that teacher is one of the determinants of the high and low quality of educational outcomes. The success of education is largely determined by the extent to which teachers are prepared to prepare their students through online teaching and learning activities. However, the strategic position of teachers to improve the quality of educational outcomes is strongly influenced by the ability of teaching professionals and their level of welfare. Therefore, if the mental health of an educator is not good, the results of online learning will not work effectively.

4. Conclusion

E-learning readiness refers to the ability to adopt new technology in the field of education whether the individual is ready to apply e-learning with related technical skills, positive attitude towards it in the teaching and learning process. Therefore, an investigation of e-learning readiness among related teachers in primary schools is necessary to assess the success of e-learning implementation in education. This readiness affects the success of children in learning. The results of the study show that there are still teachers who are not ready to face online learning during this covid-19 pandemic, both teachers from public schools and private schools. There are several factors that make teachers not ready to face online learning, namely: the selection of materials and online lessons should be very clear and well-structured, the delivery of online course content must balance different amounts of preparation for each semester, the bad relationship created by the teacher and his or her students will result in a less harmonious relationship, and if the mental health of an educator is not good, the results of online learning will not work effectively.

Further research is suggested to involve more teachers to have a balanced representation of readiness. Research on the application of these factors as a readiness assessment should be carried out in schools to determine the level of teacher readiness, especially if they have received training on pedagogy and online teaching methodologies.

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