

# Readiness Level of Elementary Schools in Berkoh Purwokerto Selatan, in Implementing E-Learning during the Pandemic

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## ABSTRACT

The Covid-19 pandemic has an impact on the world of education, namely the use of technology for learning. This study aims to determine the level of readiness for E-Learning in three elementary schools in Berkoh Village. Survey research method, using a sample for the entire population. Participants come from the principal and teachers. The questionnaire instrument was used to measure the readiness to use learning technology, the readiness of infrastructure in schools, the readiness of school organizations, and additional information. Retrieval of data as much as 15 samples from 21 total populations. Data processing techniques and data analysis using descriptive statistical methods. From the four indicators of readiness, Of the four indicators of readiness coded into a readiness value. Results SDN 1 Berkoh Not ready needs a lot of work, SDN 2 Berkoh is Ready but needs a few improvements, and SDN 3 Not ready needs some of the work.

**Keywords:** E-Learning , Elementary School, Pandemic, Readiness

## INTRODUCTION

The COVID-19 pandemic has brought a shift in the teaching and learning experience in the world of education. Needs and abilities of digitization are absolutely necessary in the world of education as the length of time of pandemics I and continue the learning process. The development of information technology and co manias is also supported by the development of the global information infrastructure quickly to accommodate the needs of digitization. Information technology and communications, is changing the way of pattern of ongoing educational activities.

Information technology is used to process data in a variety of ways, including processing, obtaining, compiling, storing, and manipulating data in order to produce accurate information, namely information that is useful, accurate, and timely. Information technology and co munikasi marked by the birth of the computer and its development is very fast, in line with the development of the Internet as a medium conveys information that is very effective. In the field of education, teachers are required to master technology as an element of their pedagogical and professional competencies, namely the use of technology in the learning process. The ability to use technology is also a positive value in the element of sustainable self-development. These academic qualification standards and technological competencies are set out in the Annex to the Minister of Education and Culture Regulation Number 16 of 2007 [1].

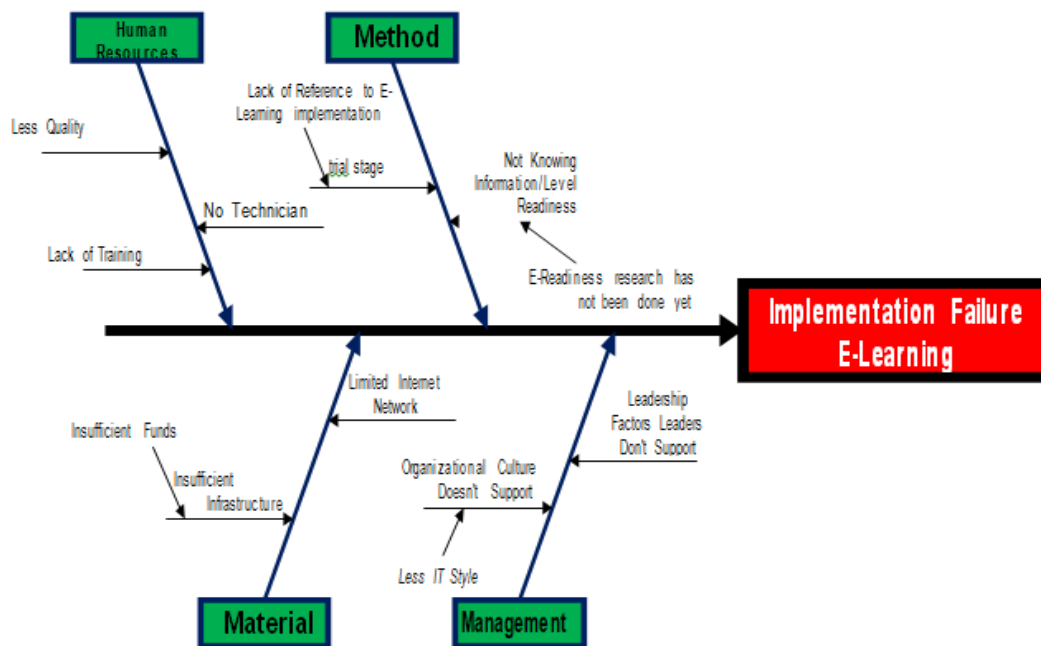
Development technology and information may be used to support the learning process and to improve the management of education. *E-learning* ( *electronic learning* ) is an example of the application of information technology in educational institutions through various internet applications that can be easily accessed, either via computers, *smartphones* or other electronic devices. This study was made to obtain empirical data and is used as information readiness (readiness) will be the implementation of technology information on Berkoh Village Primary School in South Purwokerto. The purpose of her to determine the readiness of the implementation of *e-learning* , conformable with that proposed by Aydin & Tasdi and Chapnick , that the research is how science to get data for the purpose and usefulness [2-3].

*E-learning* which is based on technology information and komunikasi be a challenge for teachers in treating/managing the process of learning. The integration of the various aspects to be bound and complementarity in the readiness of the application of learning that is based on technology. This inline with Priyanto stated the application of *e-learning* involves several aspects, namely [4]: (1) technology infrastructure; (2) resources; and (3) environment.

The readiness of the implementation of *e-learning* in Primary School Village Berkoh South Purwokerto use survey method, according to Suryobroto in Zulfiana Farista, the purpose of the survey method is to find out the information actual detailed shortly deskripsika n existing symptoms, men identify cation problem, make comparison and evaluation and to find out what other people are doing in dealing with the same problem or situation for the benefit of planning and making decisions in the future [5].

## MATERIAL AND METHODS

The survey method used in this research is a way of describing situations or events in the field regarding the readiness of implementing *e-learning* in three SD Negeri Kelurahan Berkoh . The survey method in this study is limited to surveying a sample of the population to represent the entire population. According to Suryobroto in Farista, the purpose of the survey method is to find out detailed actual information that describes existing symptoms, identify problems, make comparisons and evaluations and to find out what other people are doing in dealing with the same problem or situation for the benefit of of making plans and decisions in the future [4]. The research was conducted as 3 state elementary schools , in the Village Berkoh South Purwokerto. This research is illustrated through the Fishbone diagram that would indicated an impact or the consequences of a problem , with various causes [6].



Pict 1. Fishbone diagram of research problems

The model used is the *Chapnick* model [3]. This model is very reasonable to look the the e-learning readiness score. It will measure the readiness of all aspects of an organization. Ignoring one of the factors will reduce the *e-learning* readiness score which is manifested by the low or failed level of *e-learning* utilization in a school .

In this study, the questionnaire was focused on 4 indicators from some previous research (such as Prayudi, Fariani, Seta et al, argued, such as (1) School readiness in utilizing ICT for learning; (2) Readiness of ICT infrastructure in the school ; and (3) The maturity of the school organization.

The research instrument was a questionnaire that was filled in (checklist) by the principal and teacher for each variable . The following is the content of Research Variables (Fariani, 2013).

Table 1. The indicator of readiness variables

No.	Dimensions / Variables	Indicator
1.	Human Resources	Human, Self Development, Competence, Training <i>E- learning</i> , and User Attitudes
2.	Organization	Structure of Organization, Leadership, and Policy
3.	Technology	Technology and Innovation
4.	E-learning material	Fill / Content
5.	Finance	Budget Allocation and Organizational Financial Policy,
6.	Infrastructure	Network, <i>Software</i> and <i>Hardware</i>

Data collection was carried out in 3 elementary schools located in the village of Berkoh Purwokerto Selatan, it was planned to take 21 samples and realized as many as 15 samples with a percentage of 71.43 %. This is due to the negative effect of the pandemic corona which limits the space for teachers to face to face. Some of the *Work From Home* is used to fill out questionnaires / surveys, but this cannot be done by all teachers.

Data processing techniques and data analysis using descriptive statistical methods, in which questionnaire data completed by respondents (principals and teachers) are grouped

into tables based on variable separation in the e-learning readiness aspect. Indicators will then be broken down into statement items, which will be submitted in the questionnaire.

The measurement scale employed refers to the scales denoted by the numbers 1, 2, 3, and 4. This information will help interpret the expected results based on the e-learning readiness level. In the analysis of this research, the value that determines the readiness of an organization to implement *e-learning readiness* is the average value of the entire measurement, where this value is generated through the average calculation of the readiness values of the existing variables. In collecting research data, the type of data collected is primary data.

The data obtained from the calculation of respondents' answers (principals and teachers) are grouped into tables according to research variables consisting of human resources, organization, material and technology variables. Each answer choice has been given a weight and then calculated to obtain the average value of all respondents. This calculation is carried out for each indicator. After getting the average value of each indicator in one variable, then the average value of each variable is calculated. After getting the average value of the four variables, the next step is the average value of the four variables. The average value is the final value used in determining the level of *e-learning readiness*.

Determination of the level of organizational readiness in implementing *e-learning* (Aydin and Tasci. 2005 ) is in the Table 2 .

Table 2. The *e-learning readiness level*

No.	scale	Interpretation of
1.	3.66 - 4	Very good (Ready go ahead)
2	2.66 - 3.65	Good (Ready but needs a few improvement)
3.	1.66 - 2.65	Enough (Not ready needs some of work)
4.	1 - 1.65	Less (Not ready needs a lot of work)

## RESULTS AND DISCUSSION

The readiness of the implementation of *e-learning* in elementary schools at Berkoh Village South Purwokerto can be seen at Table 3.

Table 3. The Implementation Readiness of e-learning at elementary schools at Berkoh Village South Purwokerto

No.	Elementary School	Average	Variable				Amount average
			1	2	3	4	
1.	<b>SDN 1 BERKOH</b>		1.7	1,2	1	1.5	1.46
			1.8	1,2	1	1.75	
			2	1,2	1	1.75	
			2,3	1,2	1	1.75	
		Average	1.95	1,2	1	1.69	
2.	<b>SDN 2 BERKOH</b>		2.8	3,9	3.6	3	
			3,2	3	4	3	
			2.8	2,6	2.8	3	
			2.9	3	3,2	3	
			3.5	4	3.8	3.5	
			3,2	2,6	3,2	2.25	
			3	2,6	3	2.25	

No.	Elementary School	Average	Variable				Amount average
			1	2	3	4	
1.	SDN 1 BERKOH		1.7	1,2	1	1.5	
			1.8	1,2	1	1.75	
			2	1,2	1	1.75	
			2,3	1,2	1	1.75	
			Average	3.06	3,1	3.37	2.86
3.	SDN 3 BERKOH		2.8	1,2	1	1.25	
			2	2	2	2.25	
			2.7	2	1.6	2	
			1.9	1,2	1,2	1.5	
			Average	2.35	1.6	1.45	1.75

Table 3 showed the readiness of three elementary schools in Berkoh Village for e-learning implementation. According to Table 3, SDN 1 Berkoh and SDN 3 Berkoh have reached a level of Less or Not Ready and requires a lot of work. Teachers are not prepared to implement online learning. The causes are a lack of training and a lack of assistance from policymakers. Furthermore, this condition is caused by a lack of supporting facilities, such as poor signal conditions and the ability to use only the most basic technological devices. As a result, this school is not prepared to implement E-learning and will require extensive preparation.

SDN 2 Berkoh have better condition than others. Based on Table 3 indicated the average value of the readiness of *e-learning readiness* amounted to 2,95 . The school has reached the Good level (Ready but needs a few improvements). The all variables of readiness implementation (included teachers, infrastructure, e-learning material, organization, technology, and finance) have sufficient to implement E-learning. The principal is critical to the successful implementation of e-learning in the school. The ability to organize and strengthen cooperation with policymakers contributes to the implementation's success. So that SDN 2 Berkoh is included in the category of **"ready and needs a little improvement"**.

To improve readiness for implementing e-learning, the school can implement the following recommendations [7-9]: (1) The school needs to improve infrastructure and the provision of infrastructure such as computers that can connect to the Internet in all late or outdoor rooms. In addition to increasing bandwidth capacity and improving wifi and internet network facilities so that teachers can connect to the internet via laptops or tablet PCs; (2) The school should increase socialization about the use of e-learning and the benefits of using it. In addition to creating a simpler and easier-to-understand manual for the use of e-learning; (3) The school should provide guidance in determining the application of e-learning implementation as a tool to aid in the learning process. The principal is expected to issue policies related to the use of e-learning, such as using e-learning as a learning medium that can help in the teaching process and as a tool for sharing knowledge with fellow teachers to collaborate between teachers; and (4) The school is advised to provide support funds and make the details of the budget for implementing e-learning for each class, including the provision of infrastructure internet network, application development, and so on.

## CONCLUSION

The readiness of e-learning implementation in three elementary schools in Berkoh Village are varied from not ready needs a lot of work to ready but needs a few improvement. The schools must improved their resources such as human, technology, infrastructure, e-learning material, and finance. To increase their readiness, these schools must improve their resources such as infrastructure and the maintenance, finance, and teacher competencies.

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