The Problem of Distance Learning During the Covid-19 Pandemic

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Abstract. The Covid-19 pandemic has an impact on various sectors, including the education sector. Worldwide, no less than 1.38 billion students are affected. In Indonesia, around 68.8 million students are forced to study from home. This fact will certainly cause problems in the implementation of learning. The problems are related to various things, including the readiness of teachers and students to do or participate in distance learning, the readiness of learning facilities and infrastructure, or others. Various complaints lead to the problem. However, until now, accurate information based on in-depth research was not available. On that basis, this research was conducted to know the problems of distance learning in elementary schools in Banjarmasin City. This study used a quantitative descriptive method with a population of elementary school teachers in City Banjarmasin with a sample of 166 respondents, classified based on subject groups, with details of 53 adaptive teachers, 38 normative teachers, and 75 productive teachers spread across Banjar Utara District, West, Central, East, and South. The sampling technique used is proportionate stratified random sampling. The results showed that in general the teachers' perceptions of knowledge and experience related to online distance learning were still low. However, teachers have responded positively to technological developments and are aware of its potential for online-based distance learning. Besides, the ability and experience of teachers to use computers to integrate learning with online learning is in the poor category. The availability of information and communication technology facilities for the implementation of distance learning owned by teachers, students, and parents of students is also in the poor category. The lack of availability of facilities is certainly not very supportive of distance learning activities. These facilities include computers, printers, LCD projectors, cellphones, and internet connection. Based on the findings of this study, it is recommended for teachers and students to improve competency in information and communication technology that supports its integration in learning. Increasing internet access and providing online learning facilities are necessary, both by schools, teachers, and parents of students so that online learning does not experience problems.
Keywords: Distance Learning, Covid-19 Pandemic.

I. INTRODUCTION

Several experts estimate that around the beginning of 2019 Covid-19 has entered Indonesia. One of the efforts to prevent the chain of transmission of the virus, in early March a policy was issued through the Minister of Health Regulation Number 9 of 2020. This regulation regulates the limitations of all activities of the Indonesian population or society, starting from closing factory workers off to rest, limiting religious activities., restrictions on activities outside the home, restrictions on the use of several public facilities, and the closure of schools ranging from primary to tertiary education. The impact is that all activities must be carried out from home so that terms are working from home, the school from home, concerts from home, worship at home, and various other terms that describe the activities carried out from home.

About schools from home, the Ministry of Education and Culture of the Republic of Indonesia launched three policies to support students and education units affected by the Covid-19 pandemic. The Indonesian Minister of Education and Culture, Nadiem Anwar Makarim, issued several policies, one of which was the affirmation of school operational assistance and performance operational assistance. This policy is focused on schools that are most in need and affected by the Covid-19 pandemic. The details include payment for honorary teachers, payments for education personnel if funds are still available, shopping for learning needs from home such as credit, data packages, paid online education services, and shopping for

hygiene needs related to COVID-19 prevention such as soap, disinfectants, and health support others (Kemdikbud, 2020).

One of the things that are unique about the use of school operational assistance funds according to the policy is spending pulses or data packages to accommodate learning activities from home. This policy indicates that learning activities from home are carried out online so that students, teachers, and schools can use the assistance funds for data packages so that online learning activities can be carried out. Then the question is whether with this policy stimulus learning activities during the Covid-19 pandemic were carried out well.

The success of online distance learning during the Covid-19 pandemic depends on the fulfillment of various prerequisites, both from the school, teachers, and students. Now the question is what the reality on the ground is. Until now this information is not yet available. This information is very important for evaluating various distance learning policies applied online during the Covid-19 pandemic, both in Indonesia and other countries that have similar cases. For this reason, this research is very important. Several phenomena will be described and explained through this research, including: (1) teachers' perceptions and understanding of online distance learning, (2) the ability of teachers to integrate information and information technology for online distance learning, (3) readiness of students and parents for independent learning, and (4) obstacles and challenges of online distance learning.

II. METHODS

Research Goal

This research uses descriptive quantitative research methods using survey data collection techniques (primary) and documentation studies (complementary). Interviews are also used in specific contexts to reinforce primary data findings. The survey was used to reveal and describe data about the implementation of online-based distance learning during the Covid-19 pandemic at elementary schools in Banjarmasin. Documentation studies were carried out to reveal and describe teachers who were active in teaching during the Covid-19 pandemic with all its challenges and obstacles. Interviews with sample teachers were generated from documentation studies to explore the potential for implementing online-based distance learning. Also, interviews were conducted with vice principals in the field of curriculum and human resources to explore data related to policies for implementing learning.

Sample and Data Collection

The population of this study was elementary school teachers in Banjarmasin. The research sample was taken as 166 respondents, classified based on subject clumps, with details of 91 teachers for grades 1 to 3 and 75 teachers for grades 4 to 6. The sampling technique used is proportionate stratified random sampling.

Following the data collection technique, the instrument used in this study was a questionnaire. The instrument was developed based on research variables with the principle of a tuning fork by examining the constructs of the research variables, translating in the form of a grid, and examining conditions in the field. Before being used to retrieve data, the instrument must first validate the content by an expert and empirically validate the construct in the field. The results of expert validation fall into the very high criteria with a value of 91.8%, while the results of the construct validation test (item validation) show that all items are included in the valid criteria. The next analysis is the instrument reliability test, with the reliability of the results in a very reliable category, with a reliability level of 0.86.

Analyzing of Data

Following the research objectives and the type of data available, the data analysis technique used is quantitative descriptive analysis techniques. The descriptive analysis provides a systematic description of factual and accurate data regarding facts related to the integration of information and communication technology in learning which is presented in the form of tables, graphs, or diagrams. The steps for analyzing quantitative data are giving each indicator a score; determine the mean value; determine the mode value; interpret the meaning. Based on the data obtained from the questionnaire, analysis and interpretation are carried out on each indicator. The descriptive analysis technique used is the use of frequency tables, the average percentage of each item has used the formula (Sugiyono, 2010):

$$P = \frac{F}{N} \, x \, 100$$

Description:
P = Percentage Sought
F = Score of Each Indicator
N = Ideal Score

The percentage calculation results then consulted on the data interpretation guideline criteria as shown in data description is stated in the form of a score with four levels of interpretation as shown in Table 2.

Table 1. Data Interpretation Criteria Guidelines

No.	Percentage (%)	Criteria
1	80.1-100	Generally
2	69.1-80	Most
3	40.1-60	Most small
4	20.1-40	Very little
5	0 - 20	Very little

Table 2. Category Interpretation of Score in Descriptive Analysis

No.	Interval	Category
1	3,25-4,00	Very Good
2	2,50- <3,25	Good
3	1,75- <2,50	Less Good
4	1,00- <1,75	Not Good

III. FINDINGS AND RESULTS

Condition empirical implementation of learning during the Covid-19 pandemic in elementary schools in Banjarmasin City can be described in four ways, namely: (1) teachers' perceptions and understanding of online-based distance learning, (2) the ability of teachers to integrate information and communication technology for online-based distance learning, (3) readiness of students and parents for independent learning, and (4) obstacles and challenges of online-based distance learning.

Teachers' Perceptions and Understanding of Online-Based Distance Learning

During the Covid-19 pandemic, teachers are required to organize online-based distance learning. The effectiveness of online-based distance learning is not much different from learning face to face. The degree of effectiveness depends on the competence of the teacher, the more competent the teacher, the more effective its implementation. From the results of data analysis, it was revealed that the understanding of elementary school teachers in the city of Banjarmasin on distance learning is very diverse so that it affects its implementation. This diversity has something to do with their age factor. The older the teacher, the lower their understanding of distance learning. This indicator of understanding is seen in the aspects of perception and implementation. For ages 50 to 57 years, teachers understand that distance learning is limited to independent learning activities by giving students structured assignments, so it is not surprising that its implementation during the Covid-19 pandemic is only limited to giving assignments in the form of questions to students. This understanding is different from teachers who are under 50 years of age. They understand that distance learning is not only limited to independent learning activities by providing structured assignments, but also with an understanding of the use of information and communication technology, for example, the use of various learning management system applications such as google classrooms, video conferencing, and social media applications. In terms of variations in learning models for teachers under 50, they are quite diverse, but the approaches and strategies are still lacking. This means that the learning activities carried out are limited to transferring learning activities face-to-face into online forms. Whereas online learning has its methods and strategies in the form of synchronous and asynchronous.

Other data show that there is a correlation between age and the ability to use computers. From the results of the study, it was found that most of the senior teachers with an average age of 50-57 were in the low category with a mean score of 1.9 and 2.5, while for the young productive teachers in the very high

category with a mean score of 3.3. This score shows that there is a good ability for teachers in the use of information and communication technology for productive age, so this is closely related to understanding and the ability to carry out distance learning.

The Ability of Teachers to Integrate Information and Communication Technologies for Distance Learning Online

D-based natural distance learning, information, and communication technology services to connect teachers with learners because there is a physical separation between the two. There are various modes of delivery used in distance learning, including print media, radio broadcasts, television broadcasts, computer conferencing, e-mail, interactive video, and multimedia computer technology. The use of certain media and modes will provide effective results if the teacher can properly integrate them into the learning process. The results of data analysis indicate that the ability and experience of teachers in integrating information and communication technology for distance learning is in a low category (1.90).

The data above shows that so far most elementary school teachers do not have a culture of utilizing information and communication technology in the learning process. Culture is very necessary for the context of the effectiveness of implementing distance learning. Through adequate knowledge, teachers can design and implement distance learning well. Without this knowledge, it is very difficult to change the teacher's perspective on the use of information and communication technology in distance learning (Lim, Chai, & Churchill, 2010). This thinking is in line with the findings (Sarbaini et al., 2019) which show that the success of online-based learning is influenced by its culture in the learning process.

Previous findings have explained that there are differences in understanding and use of information and communication technology between teachers aged 50-57. However, in the aspect of the ability to develop learning tools such as lesson plans, preparation of teaching materials, media, and learning assessments, they are both in the low category (age 50-57 score 1.90 and age 30-49 score 2.1). This occurs due to the lack of experience and knowledge of teachers about integrating information and communication technology for distance learning. The training that teachers participate in is still limited to learning about information and communication technology tools, not at the level of designing and implementing information and communication technology-based learning.

Besides, 52.80% of teachers stated that the level of integration of information and communication technology applied to distance learning was in a good category, but the remaining 48.20% considered that the integration of information and communication technology for distance learning was not optimal. Teachers have made use of information and communication technology, especially the use of computers in the simple preparation, implementation, and evaluation stages.

If it is related to the two-dimensional mapping model of information and communication technology capabilities by (Lin, Wang, & Lin, 2012), the position of the level of integration of information and communication technology carried out by the teacher is at level 4, namely creating multimedia teaching materials, has not reached level 5 (adjusting multimedia sources), level 6 (producing simple instructional applications), and level 7 (implementing sophisticated learning systems). This finding is in line with the conclusions of experts such as (Drent&Meelissen, 2008; Keengwe, Onchwari, & Wachira, 2008; Sang et al., 2010; Simonsson, 2004) which states that the skills and attitudes of teachers towards information and communication technology are a problem in their integration. in the classroom.

Readiness of Students and Parents for Online-Based Distance Learning

The results of data analysis show that the availability of information and communication technology facilities for online-based distance learning activities is in a low category (40.35%). In terms of the need for an internet connection, it is very important in the implementation of online learning. However, the reality on the ground proves that teachers, parents, or students complain about the internet network. The lack of internet network access is not only experienced by people who live in remote areas, but also by many people who live in urban areas. Based on the findings in the field, online learning activities in Banjarmasin are still constrained by networks. As a result, the learning materials provided by the teacher are also hampered and late. Some teachers argue that if you only send text messages, it is easier than sending messages in the form of pictures or videos. To get around these network constraints, teachers also take advantage of the learning activity portal provided by the ministry of education and culture through television broadcasts. It is also an information and communication technology solution to meet students who do not have devices at home.

Without the availability of adequate information and communication technology facilities, teachers cannot meet expectations for conducting online learning. The availability and ease of access to information and communication technology facilities in schools is a supporting factor for teachers in integrating information and communication technology in learning. The facilities in question must also pay attention to information and communication technology functionality and the suitability of types of hardware and software to support the teaching and learning process (Chen, 2010).

IV. DISCUSSION AND CONCLUSIONS

Barriers and challenges color the online-based distance learning process carried out by elementary school teachers in Banjarmasin City. Due to the slow internet network, the information or material presented takes a long time to be accepted by students or vice versa. The teachers stated that in learning, the material presented was often not what they were targeting. Even in collecting the assignments of the students, they repeatedly provided leeway for various reasons given by the students. The assignments they give are also not fully done by students. It often happens that parents are involved in doing the assignments given by the teacher. The challenge is how to ensure that the assignment that is done reflects the competence of students.

Another challenge that teachers feel is the absence of a proper curriculum in the current situation of the Covid-19 pandemic, the availability of inadequate facilities and infrastructure, such as technology and internet networks as well as the readiness of human resources themselves, one of which is educators so that the conditions are is being faced so that the challenge is that teachers must be more adaptive and innovative (Ahmed, Shehata, &Hassanien, 2020; Arifa, 2020). Also, the unequal distribution of teachers (Mahbub, Purnamawati, &Maslamah, 2020) is an obstacle. Teachers are concentrated in urban areas, while in rural areas they are still lacking. The challenge is how online learning, teachers in cities and villages, students stay close even though through instant messaging platform communication. The most important thing is that these challenges are still being evaluated to get maximum learning and create independent learning skills during this pandemic (Herliandry et al., 2020).

In the online-based distance learning process, the use of information and communication technology tools plays a very important role. However, its use must be based on pedagogical principles. For example, in a technology-integrated classroom, students can use the internet to search for information, analyze symptoms, present the results of their analysis in tables and graphs and record what they have learned on a computer under the direction of the teacher. The use of technology in the learning process like this will make students more active, better than those who are passive, only receiving information from the teacher. They are also able to generate knowledge and present the knowledge that has been acquired in various formats. Activities and learning environments must be guided and structured so that students are involved in their activities learning (Mansur & Utama, 2019).

Several things must be prepared for the success of online-based distance learning. There are at least 3 things that need to be prepared. First, the integration of information and communication technology in learning must be understood by all teachers. So far, its use in the world of education, especially in Indonesia, is often only used to assist administrative activities in schools. The device should be further utilized to improve the quality of learning in the classroom by integrating it into the existing curriculum (Tamba, 2011).

Second, students, teachers, and schools should have adequate online learning facilities. Online learning requires the adequacy of information and communication technology tools, both related to hardware and software. Because learning activities are part of the communication process so that the communication process can run smoothly, the adequacy of the device must be seen on both sides, both teachers and students. This means that the technology used by teachers and students is the same so that the communication process becomes synchronous. The International Society for Technology in Education (ISTE) has set technology standards for American elementary students, teachers, and administrators. ISTE is a leader in helping teachers there become effective users of technology, arguing that "The integration of the curriculum with the use of technology involves the infusion of technology as a tool to enhance learning in a content area or a multi-disciplinary setting. Effective technology integration will be achieved in technology information and communication. Students can choose technology tools to help them obtain information in the right way, analyze, and synthesize information, and present it professionally. Technology should be an integral part of classroom functioning like any other accessible teaching tool. The focus is on each lesson, not the technology (Tondeur, Van Braak, & Valcke, 2007).

Third, teachers can develop online learning methods and strategies. As is well known, online learning does not necessarily move face-to-face activities to virtual ones, but there is a combination of methods and learning approaches between synchronous and asynchronous. Online learning places more

emphasis on learning approaches to constructivist technology information and communication. Constructivism is the most important component of technology integration. Constructivism is a view of how a person learns, namely explaining how humans build their understanding and knowledge of the world around them through recognition of the objects which are reflected through their experiences.

Also, to be able to carry out online-based learning, teachers must have the knowledge and skills in using various traditional and modern technological devices to facilitate learning and improve learning outcomes. Knowledge and skills can be formulated into the method Technology, Pedagogical, Content, Knowledge (TPACK) which is one of the new types of knowledge that must be mastered by teachers to be able to integrate technology properly in improving the quality of learning (Koehler & Mishra, 2009). TPACK is an activity to assess the level of TPACK mastery which is carried out using the TPACK framework, and the development of TPACK is a continuation of the measurement process carried out to increase TPACK mastery itself (Archambault & Barnett, 2010). TPACK can be used as a framework for designing a teacher education curriculum that is more in line with the era and demands of 21st Century learning (Rahmadia, 2019). TPACK has an important role and has a strong influence on the ability to arrange learning tools. Besides, the results of the study indicate that TPACK and the ability to arrange learning tools show a significant effect (Sholihah, Yuliati, &Wartono, 2016). The integration of ICT into the curriculum involves the three basic dimensions of TPACK, namely Technology Knowledge, Pedagogy Knowledge, and Content Knowledge (Sukaesih, Ridlo, &Saptono, 2017).

At TPACK there are 3 main knowledge or foundations of TPACK itself, namely Technology Knowledge, Pedagogy Knowledge, and Content Knowledge. Which will later form have interconnected slices, namely Pedagogical Content Knowledge, Technological Content Knowledge, Technological Pedagogical Knowledge, and Technological, Pedagogical, Content Knowledge? In the 2013 curriculum structure which also applies to junior high school level education, according to the Regulation of the Minister of Education and Culture No. 65 of 2013 concerning Basic and Secondary Education Process Standards, the learning principles used are the use of information and communication technology to increase the efficiency and effectiveness of learning (Iftitah, 2017).

Fourth, the ability of students to interact with tools, media, or information and communication technology. Another key factor in the success of online learning is the ability of students to understand and use information and communication technology. In online learning activities, students must be able to use various means, such as computers, digital books, the internet, and others. These various facilities are a good medium for students to be able to express themselves individually and can be used to explore and improve their abilities. If information and communication technology is used effectively as a tool for learning and being creative, students will have more flexibility, become collaborative, and reflective. The ability to interact with information and communication technology is also able to provide a constructive learning environment. In addition to attracting students to learn, students' ability to interact with information and communication technology will make students more active and involved in the learning process and help them solve problems or problem solving (Wallace &Kremzar, 2002) that they face in real life.

During the Covid-19 pandemic, online-based distance learning carried out by elementary school teachers in Banjarmasin has not been optimal. This symptom seems to be related to teachers' perceptions of the lack of information and communication technology integration in online learning. Besides, the ability and experience of teachers to use computers is in the poor category, even though half of them already have basic knowledge of information and communication technology and apply it in classroom learning. However, the ability to carry out distance learning is still lacking.

The availability of information and communication technology facilities owned by teachers, students, and parents is also in the poor category. The lack of availability of facilities is certainly not very supportive of distance learning activities. These facilities can be in the form of information and communication technology equipment that is directly related to the distance learning process, tablets, printers, LCD projectors, and internet connections. Ease of internet access is a serious concern in implementing distance learning because the internet is one of the keys to optimizing online learning activities.

The findings of this study carry several implications. Teacher competence related to understanding and skills regarding planning and implementing online-based distance learning needs to be improved with various self-taught or planned training programs carried out by the authorities, either from schools, education offices, or quality assurance agencies. Provision of an adequate internet network needs to be a program priority because if it cannot be resolved, during that time the implementation of online learning will not be optimal. Besides, the availability of supporting facilities and infrastructure for the implementation of online learning needs efforts, both by teachers, students, and parents of students.

V. RECOMMENDATION AND LIMITATION

Based on these findings, there are a number of recommendations that can be submitted, namely (a) to the Ministry of Education and Culture it is advisable to conduct intensive training for teachers to improve competence so that they can plan and implement online-based distance learning properly; (b) the government should continue the program of completing distance education facilities and the program of providing free quota assistance, especially to teachers and parents of underprivileged students; (c) parents help guide their children to be enthusiastic and disciplined in participating in distance learning; and (d) the results of this study can be followed up with similar research, for example on the effectiveness of distance learning during the Covid-19 pandemic; the creativity of teachers in doing distance learning, and others.

Research has limitations, especially in relation to the reach of the population that is the object of research. This research only examines the implementation of distance learning during the Covid-19 pandemic in one city, and it is limited to primary school education units. Therefore, this study does not pretend to conclude on the case broadly and at all levels of educational units. However, this study still has a transitional value if it is placed in similar cases.

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