

Learning Effectiveness of Primary School Children in the Covid-19 Pandemic in Indonesia

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Abstract

COVID-19 has an impact on the unpreparedness of the community and the government, especially in improving the quality of children's education. The increasing number of cases with rapid escalation has forced the government to take steps to reduce problems, especially the education of elementary school children. The Ministry of Indonesian Education issued Guidelines for Organizing Learning from Home in an Emergency Period for the Spread of COVID-19. This guide was unable to be implemented by both teachers, parents, and students, thus online learning is not effective. People faced social shock and stammer in this situation. This study aims to analyze the effectiveness of primary school children's learning during the COVID-19 pandemic. We used a mixed-method by collecting data in 24 provinces in Indonesia, with 1289 samples from primary school teachers, 2131 primary school children, 469 parents, and 45 local governments from the district and regional education officer. Data were analyzed using the Embedded Design model. The results showed that the online teaching and learning process was not optimal in improving children's learning achievement. Teachers are slow to respond to changes in learning, and parents have a considerable additional burden both materially and learning intensity for children. Another finding showed the number of children who were stressed due to being kept at home without meeting and hanging out with teachers and their friends. This finding has contributed to the Ministry of Education and Culture to develop various guidelines, especially for teachers, to improve online learning effectiveness.

Keywords: Education, Teachers, Children, Pandemic, COVID-19, Effectiveness

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Introduction

Covid-19 has influenced on the children's education around the world. In 2020 when Indonesia experienced the first case of Covid-19, all were shocked and helpless. This is a result of the unpreparedness of the community and the government to face undesirable conditions. In March 2020, there were 25 recorded patients of Covid-19 with no children infected. Children have a strong innate immune response due to trained immunity and early control of infection. UNICEF reported that from the first cases of Covid-19 was detected in Indonesia to May 8, 2020, there were 12,776 cases and 930 deaths spreading in 34 provinces. This number and its case distribution are increasing over time all over Indonesia. A research conducted by Buonsenso et al. (2021) show that children with Covid-19 have a more chance of experiencing long Covid-19. They experience at least one symptom that persists after 120 days of being diagnosed with COVID-19. Symptoms such as fatigue, muscle and joint pain, headache, insomnia, breathing problems, and palpitations, have also been reported in adult survivors. This condition worries many parties because long Covid-19 will have a successive impact, namely the decline in the quality of life of children.

Covid-19 does not only affect health, but also affect all aspects of life, both socio- economic conditions and children's education. The government initially did not react, but after learning about the magnitude of the risk that would occur to children, the government made a policy to stop face-to-face meetings in schools. More than 1 billion children in the world are at risk of being left behind due to school closures aimed at containing the spread of Covid-19. The children were saved from being infected, but the problem was not simple because the learning process in the classroom had to be stopped.

The low number of Covid-19 cases that infected children has an impact on the government's slow response to children's learning policies. In March 2020, the policy of study at home was conducted by region based on the Covid-19 distribution zone where red and yellow colored-zones are a priority for distance learning. The President of the Republic of Indonesia instructed to carry out social distancing, namely to study and work at home. and to make physical distancing according to the WHO's (World Health Organization) advice. Furthermore, the stipulation of Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions (PSBB) in the context of accelerating the handling of COVID-19 and Presidential Decree Number 11 of 2020 concerning Determination of Public Health Emergency of Coronavirus Disease 2019 and Presidential Decree Number 12 of 2020 concerning Determination of Non-Natural Disasters Spreading Coronavirus Disease 2019 (Covid-19) as a national disaster has not been enthusiastically welcomed by the public.

On March 24, 2020, the Minister of Education issued a Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning the Implementation of Educational Policies in the Emergency Period for the Spread of Coronavirus Disease (Covid-19). Another policy issued was about school operational assistance with the Regulation of the Minister of Education and Culture Number 8 of 2020 amended by Regulation of the Minister of Education and Culture number 19 of 2020 concerning Amendments to the Regulation of the Minister of Education and Culture Number 8 of 2020 concerning Technical Guidelines for Regular School Operational Assistance.

Initially, online learnings have not been fully responded in which teachers, parents and children are not ready to abruptly change the learning method. Many reasons are such as the

preparedness of information technology, adoption of new learning methods, teachers' readiness, and the state readiness to provide online education infrastructure.

A research conducted in Jakarta and Banten areas showed that only 14.78 percent of teachers were ready to conduct online learning, while 70.42 percent were less prepared, and the remaining 14.39 percent were ill-prepared. Readiness in conducting online learning is influenced by various factors such as the ineffectiveness of the training carried out in schools, teachers' confidence in expressing various emotions in virtual media and the limited infrastructure. This condition will likely to have a detrimental effect on the quality of online learning, particularly for children.

UNICEF notes that more than 90 percent of countries adopt digital strategies for distance learning with only 60 percent adoption for pre-primary education. In fact, 31 percent students worldwide (463 million) are unreachable by broadcast and internet-based distance learning either because of a lack of necessary technology devices at home, or because they are not targeted by the policies adopted. While schools remain closed, online platforms are the most widely used way by governments to provide distance education. Although 83 percent of countries use this method, unfortunately only about a quarter of school children worldwide reach out..

Some of the above-mentioned issues have prompted this study to explore the effectiveness of implementation of education for elementary school children during COVID-19 pandemic in Indonesia. This research was conducted from April to September 2020 in 24 provinces in Indonesia. The purpose of this study was to analyze the effectiveness of education for elementary school children during the COVID-19 pandemic in Indonesia.

Research Methods

This study uses a mixed method, which combines quantitative inquiries and qualitative approach. Mixed method research is a research design that departs from the philosophical assumptions of the scientific inquiry. This approach is carried out in combination with the aim of providing a better understanding of the research problems and questions. Mixed method combines quantitative with qualitative methods alike in a study, so that the data obtained is more comprehensive, valid, reliable, and objective.

The convergent parallel designs are a way of collecting quantitative and qualitative data. This study utilized both data simultaneously to understand research problems. The advantage of this model lies on its advantage combinatory of the two combined data, namely quantitative data for generalization and qualitative data for contextualization. The research model allows researchers to obtain information through the best methods offered by data collection techniques both quantitatively and qualitatively.

This research was quantitatively carried out by distributing questionnaires by using Google form which was circulated throughout the provinces in Indonesia through Whatsapp groups either through local governments or through stakeholder groups. The questionnaire was distributed in all regions in Indonesia, but the collected samples were spread across 24 provinces, with 1289 samples from primary school teachers, 2131 primary school children, 469 parents, and 45 local governments from the district and regional education officers. In-depth interviews were conducted with 40 informants from parents and local government.

Data collection techniques were carried out by surveys, in-depth interviews, observations and focus group discussions, especially for parents and elementary school children. The results of data collection were processed using a triangulation approach. Triangulation is an effort to check the truth of data or information obtained by researchers from various perspectives by reducing as much as possible the bias during data collection and analysis. In this study, triangulation of methods is used by comparing information in different ways. In addition, triangulation of data sources is conducted by exploring the truth through various methods and sources of data acquisition. Lastly, theoretical triangulation is utilized to increase the theoretical depth of the results of data analysis. Data analysis uses a combination of quantitative and qualitative approaches.

Results and Discussion

E-Learning and Its Problems

E-learning has become an educational choice for children almost all over the world. The choice of this learning method is mainly to prevent the transmission of Covid-19. In addition, it is an alternative to avoid school dropout. During approximately one year of the implementation of online learning in Indonesia, there have been a number of studies examining the impact of the Covid-19 pandemic on students in Indonesia. A study shows that the reduced interaction of children with the social environment directly causes children to become bored, and if left unchecked, it will increase depression. Another challenge that must be faced is related to the effectiveness of using gadgets or devices. The tendency of children to play gadgets during the pandemic will pose a great risk for children to be exposed to inappropriate material content, for example regarding the consumption of unhealthy snacks, gender stereotypes, and even bullying. Consequently, it will cause new problems that will actually have a detrimental effect for children.

The online learning model developed by Garrison, Anderson & Archer is based on three concepts, namely cognitive, social, and teaching. This model is designed with an active learning environment, where a community is dependent on instructors and students to share ideas, information, and opinions. The presence of the parties involved in e-learning is a social phenomenon that manifests itself through interactions between students and instructors. Online learning can be carried out effectively with the availability of following materials : (1) information technology to enable interaction between students and teachers; (2) teachers understanding online learning, to increase creativity as an absolute requirement for successful learning; and (3) the ability of students to provide and use technology as an unavoidable requirement.

The number of elementary school children in Indonesia is 25,203,371 from 149,435 schools, with 556,969 principals and teachers, 91,123 non-teaching staff, 1,121,739 classes and 1,112,993 classrooms. During one-year pandemic, there were 278,304 elementary school children who stayed in class and 59,443 children dropped out of school. This condition can be seen especially in remote areas such as in Papua and West Papua Provinces. Children's learning is less likely to be done with e-learning model. This is due to the limited availability of facilities and infrastructure, the limited ability of teachers to use e-learning media, the limited ability of students to use information technology, and the inability of parents to provide cell phones or computers. However, physical learning is now carried out, in which once a week, the children come to school to take worksheets to do at home. The problem was not solved because when

doing the assignment, there was no place to ask questions for the children. The inability of parents to understand the task becomes an obstacle.

Mothers in Papua and West Papua do not yet have the ability to understand the subjects taught in schools. According to the Head of the Office for Women's Empowerment and Child Protection, Boven Digoel Regency, Papua, Mrs. Emundo, the learning conditions of children during the Covid-19 pandemic are alarming. Many children do not have the ability to learn well. It is feared that this condition will have an impact on the quality of children's education in Papua. Similar conditions were also found in other provinces such as North Kalimantan, East Kalimantan, Southeast Sulawesi, and North Maluku. The conditions in Javanese towns are better, but in remote rural areas, the situation is the same. This situation affects the interest and willingness to learn in elementary school children.

Other studies also show the same situation. Some times in the learning process, children get bored, and the adults begin to spread memes in the form of complaints against online learning. They update the status with various claims, ranging from many tasks, exhausted quota, and internet network conditions. A study of nursing students showed anxiety among participants related to the effects of the Covid-19 on the learning process. This anxiety causes boredom in online learning. Children's irritability is directed to people around them for environment disturbances and internet network.

Online learning has a significant impact on the level of learning motivation among students. During a year of teaching and learning process using online system, the level of children's learning motivation decreased. This is marked by reduced discipline when attending lessons and decreased student attendance. Moreover, student responses to the material provided by the teacher are low. Students are slow to work on and complete assignments given by the teacher on the grounds of being constrained by the internal network.

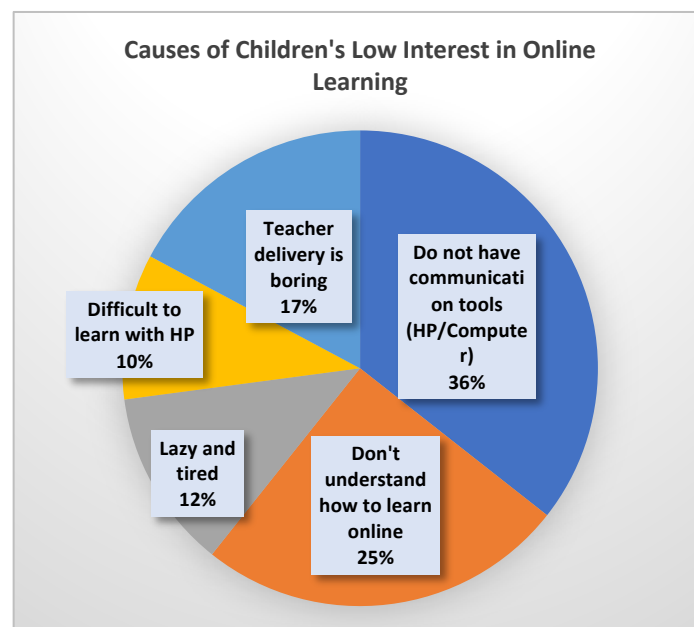


Figure 1. Causes of Children's Low Interest in Online Learning

The interesting thing is that the children are bored, tired and lazy to study, coupled with the pressure of parents who are nervous and afraid about the progress of their children (Figure 1). The follow-up impact is the emergence of domestic violence both verbally and physically.

Parents do not understand much about the psychological dynamics behind the occurrence of boredom, fatigue, and laziness in children. The increasing number of patients and suspected cases, as well as the increasing number of countries affected by the Covid-19 outbreak, has raised public fear about the rapid transmission of this epidemic. This has led to increased anxiety. Boredom is triggered by the distance of children from the surrounding environment, friends, teachers and school. The results of focus group discussions with children in one of the research locations in Semarang City, Central Java, showed that children could not stand at home because they were unable to express themselves in daily activities. Children miss football, playing and studying together, practicing singing and dancing and the activities they used to do. Anxiety arose in the discussion because of the economic pressure of parents. Children with vulnerable, poor conditions have greater pressure.

E-Learning Effectiveness

Effectiveness is a measure that states how far the target in terms of quantity, quality and time has been achieved by the service provider. Effectiveness is a measure of the achievement of predetermined goals or objectives. Thus, effectiveness is the relationship between output and goals. Effectiveness can be seen from the achievement of goals, namely the process, integration, socialization, consensus development, communication and adaptation. In term of the effectiveness of e-learning, the measure used is the success of learning with the e-learning model. Learning outcomes is considered success when participants gain new understanding as a result of e-learning. Effectiveness is also measured by the ability to implement e-learning content or processes for users and implementers. In this study, the effectiveness of e-learning is measured by the results and the ability to apply the content or learning process.

The results of the study also show that e-learning from learning outcomes is quite successful in terms of student learning outcomes. Associated with content or process indicators, the results are not effective, evidenced by the recognition of both teachers and parents. Teachers claim that not only does e-learning encourage teachers to be creative and innovate, but also has an impact on the less optimal learning quality. Besides being acknowledged that teachers have difficulty preparing learning materials, teachers are also not accustomed to using gadgets or computers connected to the internet. Even though they have been trained by the local government, due to the fast and sudden process, teachers also experience obstacles in replicating e-learning model. Several teachers interviewed expressed a desire to be able to do face-to-face soon. Although worried about transmission, the desire to be able to transfer knowledge physically to children is also a longing in itself. Figure 2 showed teacher's perception of e-learning.

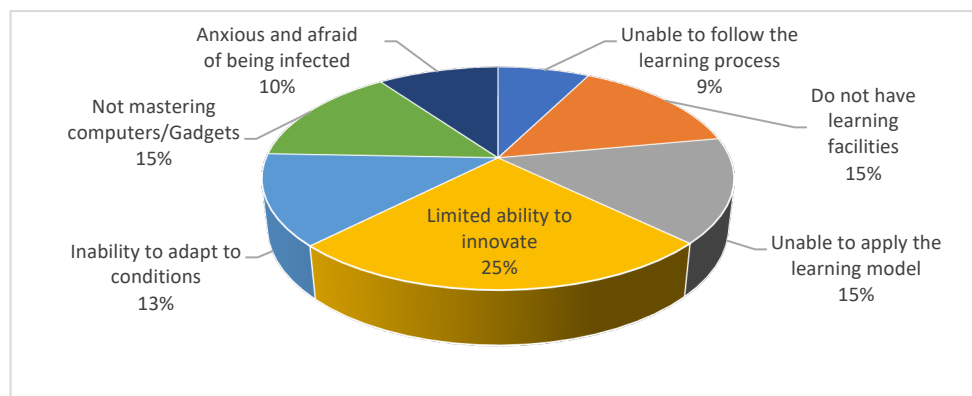


Figure 2: Teacher's Perception of E-Learning

The findings as presented in Figure 2 showed that both students and teachers feel anxiety. One of the anxieties felt is when they have relatives or acquaintances who are infected with Covid-19. They have to be faced with two things they are afraid of, namely health and the continuity of life that is isolated from the environment. Another anxiety is about economy as it has a direct effect on everyday life. In families who are deprived or poor, this condition is getting worse. They must earn an income to survive, while keeping them from getting infected with the virus. A study in China revealed the anxiety due to various pressures in dealing with Covid-19. Social support is negatively correlated with public anxiety in China. Mental health is severely affected when facing a public health emergency. So that they need attention and assistance from the community, family, and school.

The results also show that most parents are worried about their children's education with this e-learning model. They stated that e-learning was not effective. The government and local governments are considered not ready to face the pandemic and develop an effective learning model. This critical attitude of parents is part of the parents' inability to deal with e-learning model. In addition to having to provide learning infrastructure, parents also have to prepare many things, starting from providing a safe and comfortable situation, good nutrition, as well as accompanying the children during the learning process. This is not difficult for middle class parents, but it is burdensome for poor families.

The assessment of the unpreparedness of the government and local governments to make humanistic and quality learning is shown from the learning process that has been accepted by students. According to them, only 20 percent of teachers are able to carry out e-learning well and innovatively. Most teachers are considered to be placing a burden on children in the form of homework or assignments. Usually, parents were slightly involved in the learning process, however, since the implementation of e-learning, parents must make sure their children learn well. Dissatisfaction with learning is manifested by seeking additional tutoring, namely in online courses. Additional expenses to increase knowledge of teaching courses are also a burden for parents.

The results of in-depth interviews with parents showed that e-learning was not effective. Many learning formalities are obtained by children, including the values obtained by children which are considered less relevant to the quality of learning. Public services both from schools and the government are considered not optimal. According to the Public Service Act, it is the right of the community to get good, cheap, fast and quality services. Public services should describe the close relationship between customers and service providers with the orientation on results being the basis in delivering public services. Nonetheless, outcome-oriented public service approach is not an easy thing. The difficulty of the outcome-focused service approach is defining and measuring service improvement. The difficulties include that some policies and services may not explicitly articulate formal goals. Figure 3 shows the differences in the assessment of learning effectiveness with e-learning model during the Covid-19 pandemic between teachers, students and parents.

Figure 3 showed that the perception of the effectiveness of e-learning between teachers, students and parents is different. Teachers consider that e-learning is quite effective in improving the quality of learning, while parents and students are more likely to consider it less effective. Parents and students feel directly the impact of the implementation of e-learning, ranging from the quality of learning to the anxiety.

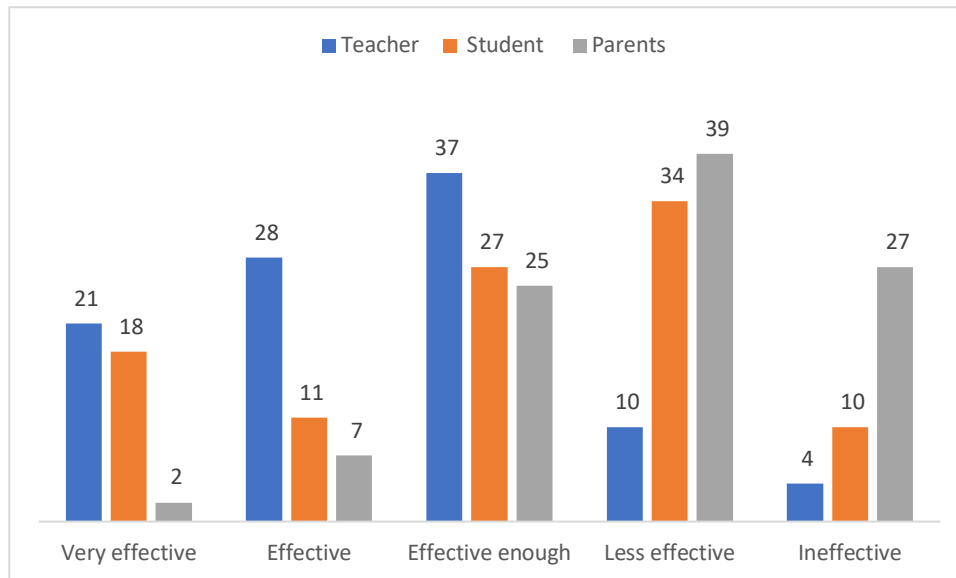


Figure 3: Percentage of E-Learning Effectiveness by Parents Teachers and Students

In e-learning process, children only get limited services, mainly contributed by public services delivered by the teachers. They carry out limited innovation because they are only trained for a limited time. Although this is an emergency, the government's response to improve the public service quality of teachers should be more mature by preparing an understandable model to implement and facilitate the needs of teachers.

The findings also showed that in remote areas, public services for teachers and students are more limited. The reasons for accessibility, network and poor infrastructure re some justification behind this limitation. Parents complained, teachers did too. To increase public services, teachers in remote locations need to improve their capacity in delivering online learning, and to obtain economic assistance to meet online learning qualifications.

Conclusion

The results of the study conclude that in terms of learning outcomes seen from the results of the learning evaluation report cards, e-learning is quite effective. However, good scores are not a reflection of a good process, indicated by the occurrence in which teachers lowered the assessment quality to encourage and motivate students to be enthusiastic in e-learning. This method is considered quite good because children who feel bored and anxious are entertained with good learning outcomes.

From the perspective of e-learning process, it is considered unsuccessful. Many findings empirically prove that e-learning process is not as smooth as it was formulated. The quality of learning is considered to be still lacking so that some parents need additional learning outside of school. Some children also do not get services because of various limitations, both accessibility to information sources, poor facilities and infrastructure, and the anxiety caused by workload.

Distressing conditions are found in remote and isolated locations and village areas where e-learning is almost impossible to fully implement. For poor families, e-learning adds to the burden due to the inability to access the learning process properly, and becomes an additional economic burden for their parents.

As recommendation, some of the findings have been submitted to the Minister of Education and Culture of Indonesia to immediately evaluate e-learning and differentiate e-learning models from one region to another. This is important considering the level of diversity in Indonesia's territory, customs, culture, and geographical conditions. The government can replicate the face-to-face learning model by dividing smaller study groups, limiting meeting times, and training teachers for participatory and interactive learning processes.

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