Digital learning from home and the future of post-pandemic education

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Abstract. This paper explains how the learning process from home is carried out during the pandemic era and how it will impact the future of education. The approach in this research is qualitative with the literature review method. But to strengthen the data, this study also uses interviews. In this pandemic era four obstacles were discovered, firstly the readiness of devices and networks, the cost of the internet network and the digital literacy capabilities of parents and teachers. In addition, learning done from home through online during the pandemic era had an impact on the future of education in Indonesia. The learning experience in the pandemic era is increasingly a sign that it is not a single school or college that determines success. The decisive digital era is creativity and digital literacy, second, the class will be more flexible than ever which does not always require students to always come physically to school, and finally the stronger academic inflation, where degrees are no longer a sign of prestige.

1. Introduction

Education has a very important role for the progress of a country. Defines education is a human activity to develop an individual's innate potential towards an outcome or achievement [1]. Education output should be able to provide solutions to problems faced by the community. In reality education in Indonesia has a bigger problem, namely a pandemic disaster which results in learning not being done as it should.

The pandemic era had a wide impact on all aspects of people's lives. Mainly causing a recession against the economy of a country including education throughout the world. Victim statistics from Covid 19 are increasingly increasing, so the government makes a policy based on Circular No. 4 of 2020 related to how the implementation of the learning process that prioritizes the health of students, teachers and all school stakeholders. The circular contains five points of government policy, the cancellation of the national exam for high school and the competency test for junior high school in 2020, the learning process is carried out from home through online, school exams, the promotion system and about the admission of new students.

Since the letter was published today in Indonesia, there have been two months of learning from home. Learning is done online, with the teacher being the guide during the learning process. However, the facts in the field were found that naturally the role of the teacher shifted more towards parents to teach and guide children at home. Whereas on the one hand the last decade the internet has spread and become a necessity for everyone. This is increasingly becoming attached to human life when a smartphone is present. All activities have been carried out online, including learning. Currently some students are accustomed to learning independently through the internet and social media. For example the presence of the teacher's room has become a new choice for students and parents to educate their children in non-formal institutions.

Therefore the education and learning discourse from the covid 19 and post-pandemic era homes will definitely involve an online learning system or digital literacy. So during the learning period from home, how is the implementation system? What challenges are faced with online learning systems from home? What is the impact on education after the pandemic ends? These three basic

questions will be the starting point of this research. This means that this article will discuss the implementation of learning from home, its challenges and post-pandemic education.

2. Method

To answer the problems in this study, the researchers used a qualitative approach. The method used is more in the literature review. In addition to completing the data, the researchers also conducted interviews with several experts, as well as actors in the learning process from home. Interviews with experts in this context are intended to enrich and deepen the findings. The selection of experts is adjusted to the topic of discussion, so that in this study there are three experts, namely experts in the field of cyber media, education experts and learning experts. The selection of the three types of expertise is because these three areas have a relationship between how learning can take place in the pandemic era, and how the future of education after the pandemic. The data collected also comes from document data and articles related to pandemic issues, education and literacy in the digital age and other related documents. Then the researcher looks for answers to the problems given by combining the literature review with the interview data. Data analysis was performed to filter the data needed to answer the problems in this study.

3. Result and Discussion

Implementation of Learning from Home and Urgency of Digital Literacy

The implementation of learning from during the pandemic era cannot be separated from digital literacy. Because the learning system is done online. Based on the data obtained, while learning takes place learning from home, the role of many teachers is the responsibility of parents. This event returns the essence of education which is influenced by many factors. So far, many parents tend to blame teachers and schools when they find children having misbehaviours. Teachers and schools are important variants of education that affect children's development. Factors that influence children's development include parents, neighbours, friends, poverty, politics, genetics, culture, environment, etc. [2]. Learning from home provides awareness to parents, that the behaviour and intellectual development of children is greatly influenced by many factors including parents.

An interesting phenomenon is that this pandemic situation forces parents to become teachers, so digital literacy is very much needed. Some students who are in elementary school are very dependent on the role of parents when online learning takes place. For example the presence of students in a course for elementary school level in a school is around 70-80%. The factor tends to be the problem of the existence of parents. Students cannot be present in a study when their parents are not at home. Students who are late submitting assignments are generally because they have to wait for parents who are not at home.

From this phenomenon it can be seen that the role of parents is very urgent when learning is done from home. But problems will arise when parents also do not have mastery of technology including online learning systems. The pandemic era forced parents to understand digital literacy. This becomes very urgent, because with digital literacy parents are able to create a comfortable atmosphere of learning at home. This means that this situation makes digital literacy relevant for everyone.

Nelson et al., (2011) states that digital literacy is the ability to use digital technology and communication tools, internet access networks, manage, integrate, evaluate, create and communicate information to function in a knowledgeable society. Digital literacy defines as the abilities and skills of technology needed by individuals that lead to more productive lives, continuing their personal development with lifelong learning activities and positively contributing to society[3].

This definition can be adopted to see the role of parents at home during the learning process via digital or the internet. Parents need expertise in using internet technology, internet access networks, management, and creating information to be able to support the process of implementing learning done at home. This unpreparedness will not be impossible to create boredom in children and parents which can lead to depression. The urgency of digital literacy is not only the process of

interaction with digital media or the internet, but rather the war on all aspects of child development [4]. So the process of learning from home has consequences for the importance of digital literacy or pedagogy technology for parents as a guide at home for children.

Obstacles to the Digital Learning Process From Home

Gagne defines learning as a change in behaviour due to the experience process[5]. Whereas Hakim (2010) defines learning as a change in human personality, and the change is seen in improving the quality and quantity of behaviour [6]. Besides learning requires a calm atmosphere and good media support. So that the learning experience of students is carried out well so as to create good quality behaviour. But learning the pandemic era is not without obstacles. Learning by utilizing the internet has consequences for the importance of internet pedagogy and digital technology, and the availability of tools.

Obstacles in learning this pandemic era, actually has a close relationship with the discourse of educational constraints in the digital age. The obstacles in education in the digital era are very relevant to the learning of this pandemic era. The results of this study found that obstacles in the learning process of the digital age greetings consisted of four parts. First, device problems and internet network availability. At present the internet has almost touched all regions in Indonesia. Apart from that smartphone or mobile technology is everywhere. Besides the presence of the internet changes the lifestyle of students. If a few decades ago they had a lot of physical interaction and play, so now students spend a lot of time with gadgets [7]. This means that these changes have good potential for implementing online learning. Because learning can be done easily.

However, the fact is that some people do not have devices and cannot access the internet network. Those who live in rural villages or in remote places will find it difficult to get an internet network. The lower economic class community, it is difficult to get a device or smartphone that can support the learning process. Some students who live in remote areas find it difficult to get an internet network when online learning is done, even though they have devices. They have no choice but to leave the house to a distant place where the internet can be accessed, of course this has dangerous consequences because a pandemic can threaten.

The second problem, is the cost of education in the digital era which is expensive. Access to the internet allows students to easily access various learning resources. The consequence is the need for the availability of a strong internet network. During the pandemic, many universities provide subsidies to students for internet quota fees. The subsidy is a consequence of learning from home, so students can use it for the learning process by buying an internet quota.

A long period of learning from home which also takes up the internet quota. Many teachers prefer to use applications such as zoom meetings or Google meetings to do the learning process online. The use of this application for some teachers is considered easier because it supports virtual face-to-face meetings and its ability to upload learning materials. But complaints from students is that the use of both applications is very wasteful of the use of paid internet. So it requires a large enough expense for the process of implementing learning. In addition, several cases in learning with online systems are network errors.

Third, teacher competence in managing learning. The presence of the internet and social media which allows students to learn independently and throughout life, results in distortion of the teacher's role as a conveyor of information[8]. However, that does not mean the teacher's assignment is completely lost. The teacher's task is how to give direction to students so they can learn comfortably at home. The fact is that in the field teachers do not guide students, but rather send assignments to students, so students who are supposed to get guidance and direction while studying in the pandemic era, instead they have to deal with a very large number of assignments from teachers of various subjects. Because of dependence on parents at home, the task of the teacher is then mostly done by parents. Therefore teachers need to find an effective learning format in the implementation of online learning with distance. A creative approach is needed so that students learn authentically, not doing too many tasks**.**

Fourth, mastery of digital technology. This variant also determines the learning process. Some teachers or students lack mastery of digital technology. At present there are many applications that can help the digital learning process take place. Some teachers prefer to use the email application

or whatssap not because it is practical, but because of the mastery of digital technology. The same thing is faced by students, these obstacles can hinder the learning process.

Post-Pandemic Education

The implementation of education in the pandemic era provides experience for the future. Speaking of post-pandemic education is also related to education in the digital age. The pandemic era forced the government to change various policies regarding education such as conducting annual evaluations and online learning processes. There are three types of changes in education after a pandemic.

First, digital internet literacy and more creativity determine the success of educational output. Learning from pandemic phenomena, one of the obstacles experienced is the creativity of teachers in managing learning, and mastery of digital internet. Various online sites that provide online services that are interesting and practical, distort the teacher's role as a source of information. Many professions that were not previously predicted were present in the digital age. Those who have a profession as YouTuber can reap huge profits with the capital of creativity and digital internet literacy. It also attracts young people. Creativity is a complex concept that can be seen from various perspectives[9]. While Aralas states that creativity has several features, namely novelty, value, and effectiveness[10].

The pandemic era provides learning for the human race that all activities can still be carried out online remotely. Therefore digital literacy capabilities of the internet are crucial. Deursen mentions that there are five intertterations, namely 1. Operational Internet skills consisting of Operating an Internet browser: Operating Internet-based search engines: Operating Internet-based: 2. Formal Internet Skills; Navigating on the Internet, Maintaining a sense of location while navigating on the Internet. 3. Internet Skills Information; Locating required information, by selecting a Web site or a search system to seek information; 4. Strategic Internet skills; Taking advantage of the Internet[11].

Second, flexible classes. Although online learning has many shortcomings, but educational practitioners have begun to get used to using it. Experience using various online systems during learning will improve one's digital literacy skills. So that teachers and students will learn a lot about obstacles. Because of this experience, physical meeting classes post pandemic will be more flexible. Educational actors (universities, schools and teachers) will make their classes more flexible in the learning process. Maybe even the portion of physical meetings will be reduced, because they will use more online meetings. In this context too, what is mentioned by Friedman the world becomes flat[12]. Included in the context of education, because local, national and international scale classes can be done easily, economically and across countries The child can access school from her own home. She also has access to all digitalized learning facilities in her suburb, town or city. She needs not physically 'come to school' so often, especially when her mother or father works out of their home office, is at home too, and when all her teachers are on-line. Schools have had to learn that they are not so much a set of buildings or real estate but a facility (at times intangible) for providing the core activity of teaching and learning [13].

Third, Justification for Academic Inflation. This pandemic era strengthens the impending academic inflation. In this context graduating from a university is no longer prestigious. Because everyone can get and receive education in college [14]. A title no longer shows someone's success. If in the past decade a Bachelor of Arts degree could be used to apply for a job, now a higher degree is needed. Even when all the titles can be achieved easily, they are less prestigious. This means that the pandemic era increasingly emphasizes that what determines a person is able to survive amid competition is those who have digital creativity and literacy. Both are not bound by one's level of education and degree. The pandemic era provides lessons for humanity, that learning can be done anywhere and at any time, without the expensive costs of formal educational institutions. In this context educational institutions need to rethink how to improve the quality of learning, a dynamic curriculum with the life of the digital era.

4. Conclusions

Learning experiences during the pandemic are carried out with the concept of digital education. The problem is the availability of devices, internet networks, and digital user technology pedagogy.

Post-pandemic education will increasingly transform towards the digital world. Constraints faced while learning from home, will provide experience in the implementation of post-pandemic education. One of them is that the class becomes more flexible, students can determine for themselves what they will learn with the help of the internet, without reference to the curriculum. In addition there will be a lot of academic inflation, because a degree is no longer needed.

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