



Factors Affecting the Effectiveness of Online Learning During the Covid-19 Pandemic

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Abstract. The government's efforts to prevent the acceleration of the transmission of the Covid-19 virus have an impact on the world of education. The government imposes restrictions on activities, including in the world of education, namely the policy of implementing a distance learning system from elementary school to higher education. Distance learning that is applied especially in universities is an online learning system (in a network). In this research, the method used is the literature study method. Literature study is an activity to find references related to methods of reading, taking notes, collecting data, and processing research materials sourced from journals, journal reviews, books, articles and the internet. This literature study method has the final result, namely knowing the factors that affect the effectiveness of online lectures during the covid-19 pandemic. The results of this study are to find several factors that affect the effectiveness of online learning/lectures (on the network), which can be grouped as follows: (1) Educators include digital, creative, and innovative literacy; (2) Learners include motivation and independence; (3) Facilities and infrastructure; (4) The role of institutions.

Keywords: Covid-19 · Effectiveness · Online Learning

1 Introduction

The Covid-19 pandemic that occurred in recent years has made the government take decisive steps by limiting all community activities to prevent the spread of the disease. Restrictions on these activities are except in the world of education. In April 2020, approximately 1.7 billion students were affected in response to the pandemic. According to UNICEF monitoring, 186 countries have currently implemented nationwide closures and 8 countries have implemented local closures. This affects about 98.5% of the world's student population (UNESCO, 2020). With these restrictions, the world of education inevitably must be able to take alternatives or solutions to keep the educational process going for elementary schools and higher education to keep going. Tam and El Azar [1] stated that the Covid-19 pandemic caused three fundamental changes in global

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education. First, change the way millions of people are educated. Second, new solutions for education that can bring much-needed innovation. Third, the existence of the digital divide leads to a new shift in educational approaches and can widen the gap. Thus showing how Covid-19 has accelerated the transformation of Education in a very short time around the world changing the pattern of conventional face-to-face learning in schools into distance learning (PJJ) that relies heavily on technology.

Online lectures (in the network) become one of the solutions for all universities both in Indonesia and in other countries as an effort to limit activities to prevent the transmission of covid-19, the online learning system (in the network) is a learning system without face-to-face between lecturers and students but carried out through online using the internet network. Lecturers must ensure that lecture activities continue to run, even if students are at home. The solution, lecturers are required to be able to design learning media as innovations by utilizing online media (online) both for theoretical courses and practicum courses.

2 Method

The method used is the method of literature study. Literature study is an activity by looking for references related to the methods of reading, recording, collecting data, and processing research materials sourced from journals, journal reviews, books, articles and the internet.

Literature study methods are used to find and collect research data from primary data sources, namely from the results of an observation, and from data sources as well as obtained from journal documents, articles and the internet. From this literature study method has the final result, which is to know the factors that affect the effectiveness of online lectures during the Covid-19 pandemic.

3 Results and Discussion

Online lectures during the Covid-19 pandemic are one solution in the world of education, especially in universities to still be able to carry out the lecture process with restrictions on crowd activities, namely by maintaining distance. Online lectures are carried out by utilizing technology as an intermediary media between lecturers and students, lectures can be done without face to face using computers or gadgets connected to the internet network, so that the lecture process can be flexible and easy to do by anyone, anywhere and anytime.

The types of media used in this online lecture process are in the form of e-learning and some are in the form of applications to meet face to face online, such as zoom, google meet and other media. These media are very helpful and supportive in the process of conducting online lectures.

Some factors that greatly affect effectiveness in learning include the following: (1) educators; (2) learners; (3) facilities and infrastructure and; (4) Institution.

3.1 Educators Include Digital, Creative, and Innovative Literacy

The development of digital literacy must be mastered by educators, especially in online or online learning. In addition to the Covid-19 pandemic which requires the learning process to be carried out remotely or online (Online) the world is currently in the era of the industrial revolution 4.0. According to Risdianto [2] "some of the characteristics of the industrial revolution 4.0 are the internet of things, namely the speed controlled by the internet.

Digital literacy skills have a fairly important role in learning, especially in online learning so inevitably educators and students both lecturers and students must be able to master digital literacy. Not only digital literacy to be able to achieve learning goals/lectures in the process of learning/online lectures lecturers and also students are required to be able to innovate, because this will affect effective learning/lectures. Then the existence of creativity for example in terms of learning media or 'art in teaching' must be further improved. Similarly, learning innovations from starting strategies, models, approaches, and learning media so that students can learn effectively and pleasantly.

As for strategies, models, approaches, and learning media must be in accordance with the type of course/material taught, for example strategies, models, approaches, as well as learning media for courses that are theoretical will be different from strategies, models, approaches, and learning media for practicum courses.

3.2 Learners Include Motivation and Independence

Motivation is one of the important factors in the learning process for both educators and learners. For example, if the teacher knows the motivation of his students' learning, the teacher can maintain and improve the learning spirit of his students so that the expected goals and results in the learning process can be achieved optimally. For learners, learning motivation can increase their willingness to learn so that they will be encouraged to improve and increase their enthusiasm to make positive learning changes.

Motivated learners exhibit high cognitive processes in learning, absorbing, and remembering what has been learned [3]. A student who has a high enough intelligence, may fail because of lack of motivation. Learning outcomes will be optimal if there is the right motivation [4]. In accordance with this statement, motivation in the learning/lecture process must be grown, especially in the current Covid-19 pandemic situation which requires learning/lectures to be carried out online.

One of the things that is no less important also in a learning process is the independence of both students/students, so that they have a responsibility in organizing and disciplining themselves, in addition to being able to develop learning skills of their own accord [5]. These attitudes need to be owned by every learner, because they are characteristic of the maturity of a learned person. According to Hapsari, Sismiati, & Herdi [6] the demands for independence are very large and if not responded appropriately can have an unfavourable impact on psychological development in the future.

Motivation and independence in online learning/lectures are needed as an effort to achieve the success of learning goals. One of the efforts that can be made to foster student motivation and independence in online learning is that in the process of explaining it lecturers can play as creatively as possible as examples of lecturers holding quizzes, or

asking students to discuss during online learning using video conferences, forming small groups to discuss doing assignments online and can ask students to make observations. This will affect effective learning or vice versa.

3.3 Facilities and Infrastructure

A very important component in learning/ lectures as an effort to achieve learning goals. According to Bafadal (2008: 2) educational facilities are all equipment or equipment, materials and furniture directly used in the educational process in schools. While infrastructure is a completeness that supports the learning process indirectly. Bafadal [7] states that educational infrastructure is all basic completeness that indirectly supports and supports the implementation of the educational process in schools. Based on the presentation of the understanding, it can be concluded that educational facilities and infrastructure are very important components, namely facilities for success and smoothness in supporting the learning process.

In online learning/lectures, facilities and infrastructure must be prepared such as PCs/Laptops or other gadgets as the main tool for the process of the lecture. The media that can be used for the online learning/lecture process is in the form of e-learning or in the form of applications to meet face to face online, namely by utilizing zoom applications, google meet or other applications. Of course, to be able to access these applications requires an internet network connection.

The above is inseparable from the obstacles in fulfilling facilities and infrastructure, especially in capable PC/laptop/gadget facilities, as well as internet network services that are suitable to be able to access online learning. For example, students and lecturers who live in 'remote' areas and have limited access, this will affect effective online learning. Especially if the internet connection that is the determinant or the main thing when distance learning is not available, then learning will also be disrupted. In this case, the government has provided a solution by providing internet quota assistance.

3.4 The Role of Institutions

The role of the Institution in the online learning process affects the relationship between educators and learners of the Institution's role as a bridge between them. Educational Institutions that are the container of unity and the turning of science make the pulse of civilization begin. Educational Institutions in their role as shelters for educators and learners, have a very vital role in building noble ideals together.

The role of the Institution in supporting or facilitating the online learning/lecture process is very important, how the business of schools or universities, the government in fulfilling the infrastructure in a school or college/university to be able to balance effective work, then how schools or universities/universities hold learning management systems, and prepare educators/lecturers to be able to adjust to the system Online learning by socializing knowledge updates with training. In addition to institutions responsible for the preparation of human resources, institutions must also prepare facilities and infrastructure that are in accordance with the needs in online learning to support the smooth learning/lecture process.

4 Conclusion

As an effort to prevent the transmission of the Covid-19 virus in the world of education is the application of distance learning, namely by using online learning. Online learning system/online learning is a learning/lecture system between educators and learners' interactions carried out online. The application of online learning is also one of the learning innovations of the industrial revolution 4.0 and educators and learners are expected to be able to adjust and utilize technological and information advances. Some factors that can affect the effectiveness of online lectures during the Covid-19 pandemic are:

- a. Educators include digital, creative, and innovative literacy
- b. Learners include motivation and independence
- c. Facilities and infrastructure
- d. The role of institutions

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